

116TH CONGRESS  
1ST SESSION

# S. 2137

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

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## IN THE SENATE OF THE UNITED STATES

JULY 17, 2019

Mr. PORTMAN (for himself, Mrs. SHAHEEN, Ms. COLLINS, Mr. COONS, Ms. HASSAN, Mr. MANCHIN, Mr. WICKER, Mr. BENNET, and Mr. WARNER) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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## A BILL

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

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

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the  
5 “Energy Savings and Industrial Competitiveness Act of  
6 2019”.

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

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

## TITLE I—BUILDINGS

## Subtitle A—Building Energy Codes

- Sec. 101. Greater energy efficiency in building codes.
- Sec. 102. Cost-effective codes implementation for efficiency and resilience.
- Sec. 103. Commercial building energy consumption information sharing.

## Subtitle B—Worker Training and Capacity Building

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

## Subtitle C—School Buildings

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

## TITLE II—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

## Subtitle A—Manufacturing Energy Efficiency

- Sec. 201. Purposes.
- Sec. 202. Future of Industry program and industrial research and assessment centers.
- Sec. 203. Sustainable manufacturing initiative.
- Sec. 204. Conforming amendments.

## Subtitle B—Extended Product System Rebate Program

- Sec. 211. Extended Product System Rebate Program.

## Subtitle C—Transformer Rebate Program

- Sec. 221. 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.

## 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 and Water Performance Requirements for Federal Buildings

- Sec. 421. Energy and water performance requirements for Federal buildings.
- Sec. 422. Federal Energy Management Program.
- Sec. 423. Federal building energy efficiency performance standards; certification system and level for green buildings.
- Sec. 424. Enhanced energy efficiency underwriting.

## 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 or standard developed and up-  
16 dated by interested persons, such as the code or  
17 standard developed by—

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

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

23 “(C) other appropriate organizations.”;

24 and

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

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

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

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

12 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-  
13 CIENCY CODES.**

14 “(a) VOLUNTARY CODES AND STANDARDS.—Not-  
15 withstanding any other provision of this section, any  
16 model building code or standard established under section  
17 304 shall not be binding on a State, local government, or  
18 Indian tribe as a matter of Federal law.

19 “(b) ACTION BY SECRETARY.—The Secretary shall—

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

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

3           “(c) STATE AND INDIAN TRIBE CERTIFICATION OF  
4 BUILDING ENERGY CODE UPDATES.—

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

7           “(A) IN GENERAL.—Not later than 2 years  
8 after the date of publication of a revision to a  
9 model building energy code, each State or In-  
10 dian tribe shall certify whether the State or In-  
11 dian tribe, respectively, has reviewed and up-  
12 dated the energy provisions of the building code  
13 of the State or Indian tribe, respectively.

14           “(B) DEMONSTRATION.—The certification  
15 shall include a demonstration of whether the  
16 energy savings for the code provisions that are  
17 in effect throughout the territory of the State  
18 or Indian tribe meet or exceed the energy sav-  
19 ings of the updated model building energy code.

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

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

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

“(A) determine whether the code provisions of the State or Indian tribe, respectively, meet the criteria specified in paragraph (1); and

“(B) if the determination is positive, validate the certification.

“(d) IMPROVEMENTS IN COMPLIANCE WITH BUILDING ENERGY CODES.—

“(1) REQUIREMENT.—

“(A) IN GENERAL.—Not later than 3 years after the date of a certification under subsection (c), each State and Indian tribe shall certify whether the State and Indian tribe, respectively, has—

“(i) achieved full compliance under paragraph (3) with the applicable certified State and Indian tribe building energy

1 code or with the associated model building  
 2 energy code; or

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

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

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

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

20 “(B) an alternative method that yields an  
 21 accurate measure of compliance.

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

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

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

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

20           “(A) has developed and is implementing a  
 21 plan for achieving compliance during the 8-  
 22 year-period beginning on the date of enactment  
 23 of the Energy Savings and Industrial Competi-  
 24 tiveness Act of 2019, including annual targets



1           for compliance and active training and enforce-  
2           ment programs; and

3           “(B) has met the most recent target under  
4           subparagraph (A).

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

8           “(A) determine whether the State or In-  
9           dian tribe has demonstrated meeting the cri-  
10          teria of this subsection, including accurate  
11          measurement of compliance; and

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

14          “(e) STATES OR INDIAN TRIBES THAT DO NOT  
15          ACHIEVE COMPLIANCE.—

16          “(1) REPORTING.—A State or Indian tribe that  
17          has not made a certification required under sub-  
18          section (c) or (d) by the applicable deadline shall  
19          submit to the Secretary a report describing—

20          “(A) the status of the State or Indian tribe  
21          with respect to meeting the requirements and  
22          submitting the certification; and

23          “(B) a plan for meeting the requirements  
24          and submitting the certification.

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

7           “(3) LOCAL GOVERNMENT.—In any State or  
 8       Indian tribe for which the Secretary has not vali-  
 9       dated a certification under subsection (c) or (d), a  
 10      local government may be eligible for Federal support  
 11      under subsections (f) and (g) by meeting the certifi-  
 12      cation requirements of subsections (c) and (d).

13          “(4) REPORTS BY SECRETARY.—

14               “(A) IN GENERAL.—Not later than De-  
 15       cember 31, 2020, and not less frequently than  
 16       once every 3 years thereafter, the Secretary  
 17       shall submit to Congress and publish a report  
 18       describing—

19                   “(i) the status of model building en-  
 20                   ergy codes;

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

23                   “(iii) implementation of this section;  
 24                   and

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

4 “(B) IMPACTS.—The report shall include  
5 estimates of impacts of past action under this  
6 section, and potential impacts of further action,  
7 on—

8 “(i) upfront financial and construction  
9 costs, cost benefits and returns (using in-  
10 vestment analysis), and lifetime energy use  
11 for buildings;

12 “(ii) resulting energy costs to individ-  
13 uals and businesses; and

14 “(iii) resulting overall annual building  
15 ownership and operating costs.

16 “(f) TECHNICAL ASSISTANCE TO STATES AND IN-  
17 DIAN TRIBES.—The Secretary shall provide technical as-  
18 sistance to States and Indian tribes to implement the goals  
19 and requirements of this section, including procedures and  
20 technical analysis for States and Indian tribes—

21 “(1) to improve and implement State residential  
22 and commercial building energy codes;

23 “(2) to demonstrate that the code provisions of  
24 the States and Indian tribes achieve equivalent or

1 greater energy savings than the model building en-  
 2 ergy codes and targets;

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

5 “(4) to otherwise promote the design and con-  
 6 struction of energy- and water-efficient buildings.

7 “(g) AVAILABILITY OF INCENTIVE FUNDING.—

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

10 “(A) to implement the requirements of this  
 11 section;

12 “(B) to improve and implement residential  
 13 and commercial building energy codes, including  
 14 increasing and verifying compliance with the  
 15 codes and training of State, tribal, and local  
 16 building code officials to implement and enforce  
 17 the codes; and

18 “(C) to promote building energy and water  
 19 efficiency through the use of the codes and  
 20 standards.

21 “(2) ADDITIONAL FUNDING.—Additional fund-  
 22 ing shall be provided under this subsection for im-  
 23 plementation of a plan to achieve and document full  
 24 compliance with residential and commercial building  
 25 energy codes under subsection (d)—

1           “(A) to a State or Indian tribe for which  
2           the Secretary has validated a certification under  
3           subsection (c) or (d); and

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

7           “(3) TRAINING.—Of the amounts made avail-  
8           able under this subsection, the State or Indian tribe  
9           may use amounts required, but not to exceed  
10          \$750,000 for a State, to train State and local build-  
11          ing code officials to implement and enforce codes de-  
12          scribed in paragraph (2).

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

16          “(h) STRETCH CODES AND ADVANCED STAND-  
17          ARDS.—

18                 “(1) IN GENERAL.—The Secretary shall provide  
19                 technical and financial support for the development  
20                 of stretch codes and advanced standards for residen-  
21                 tial and commercial buildings for use as—

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

1                   “(B) guidelines for energy-efficient build-  
2                   ing design.

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

5                   “(A) to achieve substantial energy savings  
6                   compared to the model building energy codes;  
7                   and

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

11               “(i) STUDIES.—The Secretary, in consultation with  
12               building science experts from the National Laboratories  
13               and institutions of higher education, designers and build-  
14               ers of energy-efficient residential and commercial build-  
15               ings, code officials, code and standards developers, and  
16               other stakeholders, shall undertake a study of the feasi-  
17               bility, impact, economics, and merit of—

18               “(1) code and standards improvements that  
19               would require that buildings be designed, sited, and  
20               constructed in a manner that makes the buildings  
21               more adaptable in the future to become zero-net-en-  
22               ergy after initial construction, as advances are  
23               achieved in energy-saving technologies;

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

4           “(3) legislative options for increasing energy  
5           savings from building energy codes and standards,  
6           including additional incentives for effective State  
7           and local action, and verification of compliance with  
8           and enforcement of a code or standard other than by  
9           a State or local government; and

10          “(4) code and standards improvements that  
11          consider energy efficiency and water efficiency and,  
12          to the maximum extent practicable, consider energy  
13          efficiency and water efficiency in an integrated man-  
14          ner.

15          “(j) EFFECT ON OTHER LAWS.—Nothing in this sec-  
16          tion or section 307 supersedes or modifies the application  
17          of sections 321 through 346 of the Energy Policy and  
18          Conservation Act (42 U.S.C. 6291 et seq.).

19          “(k) AUTHORIZATION OF APPROPRIATIONS.—There  
20          is authorized to be appropriated to carry out this section  
21          and section 307 \$200,000,000, to remain available until  
22          expended.”.

23          (c) FEDERAL BUILDING ENERGY EFFICIENCY  
24          STANDARDS.—Section 305 of the Energy Conservation  
25          and Production Act (42 U.S.C. 6834) is amended by strik-

1 ing “voluntary building energy code” each place it appears  
 2 in subsections (a)(2)(B) and (b) and inserting “model  
 3 building energy code”.

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

7 **“SEC. 307. SUPPORT FOR MODEL BUILDING ENERGY**  
 8 **CODES.**

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

11 “(b) TARGETS.—

12 “(1) IN GENERAL.—The Secretary shall sup-  
 13 port the updating of the model building energy codes  
 14 to enable the achievement of aggregate energy sav-  
 15 ings targets established under paragraph (2).

16 “(2) TARGETS.—

17 “(A) IN GENERAL.—The Secretary shall  
 18 work with State, Indian tribes, local govern-  
 19 ments, code and standards developers (such as  
 20 the entities described in section 303(14)), and  
 21 other interested parties to support the updating  
 22 of model building energy codes by establishing  
 23 one or more national aggregate energy savings  
 24 targets to achieve the purposes of this section.



1           “(B) SEPARATE TARGETS.—The Secretary  
2           shall establish separate targets for commercial  
3           and residential buildings.

4           “(C) BASELINES.—The baseline for updat-  
5           ing model building energy codes shall be the  
6           2009 IECC for residential buildings and  
7           ASHRAE Standard 90.1–2010 for commercial  
8           buildings.

9           “(D) CODE CYCLES.—The targets estab-  
10          lished under subparagraph (A) shall align with  
11          the respective code development cycles deter-  
12          mined by the model building energy code-setting  
13          and standards development organizations de-  
14          scribed in section 303(14).

15          “(E) SPECIFIC YEARS.—

16               “(i) IN GENERAL.—Targets for spe-  
17               cific years shall be established and revised  
18               by the Secretary through rulemaking and  
19               coordinated with code and standards devel-  
20               opers (such as the entities described in sec-  
21               tion 303(14)) at a level that—

22                       “(I) is at the maximum level of  
23                       energy efficiency that is techno-  
24                       logically feasible and lifecycle cost ef-  
25                       fective, while accounting for the eco-

1            nomic considerations under paragraph  
2            (4);

3            “(II) is higher than the preceding  
4            target;

5            “(III) promotes the achievement  
6            of commercial and residential high-  
7            performance buildings (as defined in  
8            section 401 of the Energy Independ-  
9            ence and Security Act of 2007 (42  
10           U.S.C. 17061)) through high perform-  
11           ance energy efficiency; and

12           “(IV) takes into consideration  
13           the variations in climate zones used in  
14           model building energy codes.

15           “(ii) INITIAL TARGETS.—Not later  
16           than 1 year after the date of enactment of  
17           this clause, the Secretary shall establish  
18           initial targets under this subparagraph.

19           “(iii) DIFFERENT TARGET YEARS.—  
20           Subject to clause (i), prior to the applica-  
21           ble year, the Secretary may set a later tar-  
22           get year for any of the model building en-  
23           ergy codes described in subparagraph (A)  
24           if the Secretary determines that a target  
25           cannot be met.

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

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

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

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

20                 “(C) equipment improvements for heating,  
21                 cooling, and ventilation systems;

22                 “(D) building management systems and  
23                 smart technologies to reduce energy use; and

24                 “(E) other technologies, practices, and  
25                 building systems that the Secretary considers

1 appropriate regarding building plug load and  
 2 other energy uses.

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

10 “(c) TECHNICAL ASSISTANCE TO MODEL BUILDING  
 11 ENERGY CODE-SETTING AND STANDARDS DEVELOPMENT  
 12 ORGANIZATIONS.—

13 “(1) IN GENERAL.—The Secretary shall, on a  
 14 timely basis, provide technical assistance to model  
 15 building energy code-setting and standards develop-  
 16 ment organizations consistent with the goals of this  
 17 section.

18 “(2) ASSISTANCE.—The assistance shall in-  
 19 clude, as requested by the organizations, technical  
 20 assistance in—

21 “(A) evaluating code or standards pro-  
 22 posals or revisions;

23 “(B) building energy and water analysis  
 24 and design tools;

25 “(C) building demonstrations;

1 “(D) developing definitions of energy use  
2 intensity and building types for use in model  
3 building energy codes to evaluate the efficiency  
4 impacts of the model building energy codes;

5 “(E) performance-based standards;

6 “(F) evaluating economic considerations  
7 under subsection (b)(4); and

8 “(G) developing model building energy  
9 codes by Indian tribes in accordance with tribal  
10 law.

11 “(3) AMENDMENT PROPOSALS.—The Secretary  
12 may submit timely model building energy code  
13 amendment proposals to the model building energy  
14 code-setting and standards development organiza-  
15 tions, with supporting evidence, sufficient to enable  
16 the model building energy codes to meet the targets  
17 established under subsection (b)(2).

18 “(4) ANALYSIS METHODOLOGY.—The Secretary  
19 shall make publicly available the entire calculation  
20 methodology (including input assumptions and data)  
21 used by the Secretary to estimate the energy savings  
22 of code or standard proposals and revisions.

23 “(d) DETERMINATION.—

24 “(1) REVISION OF MODEL BUILDING ENERGY  
25 CODES.—If the provisions of the IECC or ASHRAE

Standard 90.1 regarding building energy use are proposed to be revised, the Secretary shall make a preliminary determination, by not later than 90 days after the date of receipt of the proposed revision, and a final determination by not later than 15 months after the date of publication of the revision, regarding whether the revision will—

“(A) improve energy efficiency in buildings, as compared to the existing model building energy code; and

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

“(2) CODES OR STANDARDS NOT MEETING TARGETS.—

“(A) PRELIMINARY DETERMINATION BY SECRETARY.—If the Secretary makes a preliminary determination under paragraph (1)(B) that a code or standard does not meet an applicable target under subsection (b)(2), the Secretary shall contemporaneously provide to the developer of the model building energy code or standard not fewer than 2 proposed changes that would result in a model building energy code that meets the applicable target, together

1 with supporting evidence, taking into consider-  
 2 ation—

3 “(i) whether the modified code is tech-  
 4 nically feasible and lifecycle cost effective;

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

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

9 “(B) DETERMINATION OR ELECTION BY  
 10 DEVELOPER.—Not later than 270 days after  
 11 the date of receipt of proposed changes of the  
 12 Secretary under subparagraph (A), a developer  
 13 shall—

14 “(i) determine whether—

15 “(I) to publish a new revised  
 16 code accepting the proposed changes;  
 17 or

18 “(II) to reject the proposed  
 19 changes; or

20 “(ii) if the developer elects not to  
 21 make a determination under clause (i),  
 22 publish a notice of that election, together  
 23 with the proposed changes.

24 “(C) FINAL DETERMINATION BY SEC-  
 25 RETARY.—

1 “(i) IN GENERAL.—A final determina-  
 2 tion by the Secretary shall be made on the  
 3 model building energy code or standard, as  
 4 modified by the changes proposed by the  
 5 Secretary under subparagraph (A).

6 “(ii) ADDITIONAL DETERMINA-  
 7 TIONS.—If a model building energy code or  
 8 standards developer makes an election pur-  
 9 suant to subparagraph (B)(ii), the Sec-  
 10 retary shall make the following final deter-  
 11 minations for purposes of this subsection:

12 “(I) A final determination re-  
 13 garding whether the code or standard  
 14 of the developer, absent any changes  
 15 proposed by the Secretary under sub-  
 16 paragraph (A), will—

17 “(aa) improve energy effi-  
 18 ciency in buildings, as compared  
 19 to the existing model building en-  
 20 ergy code; and

21 “(bb) meet the applicable  
 22 targets under subsection (b)(2).

23 “(II) A final determination re-  
 24 garding whether the code or standard  
 25 of the developer, as modified by the



1 changes proposed by the Secretary  
2 under subparagraph (A), would—

3 “(aa) improve energy effi-  
4 ciency in buildings, as compared  
5 to the existing model building en-  
6 ergy code; and

7 “(bb) meet the applicable  
8 targets under subsection (b)(2).

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

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

17 “(2) provide an opportunity for public comment  
18 on targets and supporting analysis and determina-  
19 tions under this section.”.

20 **SEC. 102. COST-EFFECTIVE CODES IMPLEMENTATION FOR**  
21 **EFFICIENCY AND RESILIENCE.**

22 (a) IN GENERAL.—Title III of the Energy Conserva-  
23 tion and Production Act (42 U.S.C. 6831 et seq.) is  
24 amended by adding at the end the following:

1 **“SEC. 309. COST-EFFECTIVE CODES IMPLEMENTATION FOR**  
 2 **EFFICIENCY AND RESILIENCE.**

3 “(a) DEFINITIONS.—In this section:

4 “(1) ELIGIBLE ENTITY.—The term ‘eligible en-  
 5 tity’ means—

6 “(A) a relevant State agency, as deter-  
 7 mined by the Secretary, such as a State build-  
 8 ing code agency or State energy office; and

9 “(B) a partnership.

10 “(2) PARTNERSHIP.—The term ‘partnership’  
 11 means a partnership between an eligible entity de-  
 12 scribed in paragraph (1)(A) and one or more of the  
 13 following entities:

14 “(A) Local building code agencies.

15 “(B) Codes and standards developers.

16 “(C) Associations of builders and design  
 17 and construction professionals.

18 “(D) Local and utility energy efficiency  
 19 programs.

20 “(E) Consumer, energy efficiency, and en-  
 21 vironmental advocates.

22 “(F) Other entities, as determined by the  
 23 Secretary.

24 “(3) SECRETARY.—The term ‘Secretary’ means  
 25 the Secretary of Energy.

26 “(b) ESTABLISHMENT.—

1           “(1) IN GENERAL.—The Secretary shall estab-  
 2       lish within the Building Technologies Office of the  
 3       Department of Energy a program under which the  
 4       Secretary shall award grants on a competitive basis  
 5       to eligible entities to enable sustained cost-effective  
 6       implementation of updated building energy codes.

7           “(2) UPDATED BUILDING ENERGY CODE.—An  
 8       update to a building energy code under this section  
 9       shall include any update made available after the ex-  
 10      isting building energy code, even if it is not the most  
 11      recent updated code available.

12       “(c) CRITERIA; PRIORITY.—In awarding grants  
 13      under subsection (b), the Secretary shall—

14           “(1) consider—

15               “(A) prospective energy savings and plans  
 16              to measure the savings;

17               “(B) the long-term sustainability of those  
 18              measures and savings;

19               “(C) prospective benefits, and plans to as-  
 20              sess the benefits, including benefits relating  
 21              to—

22                   “(i) resilience and peak load reduc-  
 23                  tion;

24                   “(ii) occupant safety and health; and

25                   “(iii) environmental performance;

1           “(D) the demonstrated capacity of the eli-  
 2           gible entity to carry out the proposed project;  
 3           and

4           “(E) the need of the eligible entity for as-  
 5           sistance; and

6           “(2) give priority to applications from partner-  
 7           ships.

8           “(d) ELIGIBLE ACTIVITIES.—

9           “(1) IN GENERAL.—An eligible entity awarded  
 10          a grant under this section may use the grant  
 11          funds—

12           “(A) to create or enable State or regional  
 13          partnerships to provide training and materials  
 14          to—

15           “(i) builders, contractors and sub-  
 16          contractors, architects, and other design  
 17          and construction professionals, relating to  
 18          meeting updated building energy codes in a  
 19          cost-effective manner; and

20           “(ii) building code officials, relating to  
 21          improving implementation of and compli-  
 22          ance with building energy codes;

23           “(B) to collect and disseminate quan-  
 24          titative data on construction and codes imple-

1           mentation, including code pathways, perform-  
2           ance metrics, and technologies used;

3           “(C) to develop and implement a plan for  
4           highly effective codes implementation, including  
5           measuring compliance;

6           “(D) to address various implementation  
7           needs in rural, suburban, and urban areas; and

8           “(E) to implement updates in energy codes  
9           for—

10           “(i) new residential and commercial  
11           buildings (including multifamily buildings);  
12           and

13           “(ii) additions and alterations to ex-  
14           isting residential and commercial buildings  
15           (including multifamily buildings).

16           “(2) RELATED TOPICS.—Training and mate-  
17           rials provided using a grant under this section may  
18           include information on the relationship between en-  
19           ergy codes and—

20           “(A) cost-effective, high-performance, and  
21           zero-net-energy buildings;

22           “(B) improving resilience, health, and safe-  
23           ty;

24           “(C) water savings and other environ-  
25           mental impacts; and

1                   “(D) the economic impacts of energy  
2                   codes.

3           “(e) AUTHORIZATION OF APPROPRIATIONS.—There  
4 are authorized to be appropriated to the Secretary to carry  
5 out this section—

6                   “(1) \$25,000,000 for each of fiscal years 2020  
7                   through 2029; and

8                   “(2) for fiscal year 2030 and each fiscal year  
9                   thereafter, such sums as are necessary.”.

10          (b) CONFORMING AMENDMENT.—Section 303 of the  
11 Energy Conservation and Production Act (42 U.S.C.  
12 6832) is amended, in the matter preceding paragraph (1),  
13 by striking “As used in” and inserting “Except as other-  
14 wise provided, in”.

15 **SEC. 103. COMMERCIAL BUILDING ENERGY CONSUMPTION**  
16 **INFORMATION SHARING.**

17          (a) IN GENERAL.—Not later than 120 days after the  
18 date of enactment of this Act, the Administrator of the  
19 Energy Information Administration (referred to in this  
20 section as the “Administrator”) and the Administrator of  
21 the Environmental Protection Agency shall sign, and sub-  
22 mit to Congress, an information sharing agreement (re-  
23 ferred to in this section as the “agreement”) relating to  
24 commercial building energy consumption data.

1 (b) CONTENT OF AGREEMENT.—The agreement  
2 shall—

3 (1) provide that the Administrator shall have  
4 access to building-specific data in the Portfolio Man-  
5 ager database of the Environmental Protection  
6 Agency;

7 (2) describe the manner in which the Adminis-  
8 trator shall incorporate appropriate data (including  
9 the data described in subsection (c)) into any Com-  
10 mercial Buildings Energy Consumption Survey (re-  
11 ferred to in this section as “CBECS”) published  
12 after the date of enactment of this Act for the pur-  
13 pose of analyzing and estimating building popu-  
14 lation, size, location, activity, energy usage, and any  
15 other relevant building characteristic; and

16 (3) describe and compare—

17 (A) the methodologies that the Energy In-  
18 formation Administration, the Environmental  
19 Protection Agency, and State and local govern-  
20 ment managers use to maximize the quality, re-  
21 liability, and integrity of data collected through  
22 CBECS, the Portfolio Manager database of the  
23 Environmental Protection Agency, and State  
24 and local building energy disclosure laws (in-  
25 cluding regulations), respectively, and the man-

1           ner in which those methodologies can be im-  
2           proved; and

3           (B) consistencies and variations in data for  
4           buildings that were captured in the 2012  
5           CBECS cycle and in the Portfolio Manager  
6           database of the Environmental Protection  
7           Agency.

8           (c) DATA.—The data referred in subsection (b)(2) in-  
9           cludes data that—

10           (1) is collected through the Portfolio Manager  
11           database of the Environmental Protection Agency;

12           (2) is required to be publicly available on the  
13           internet under State and local government building  
14           energy disclosure laws (including regulations); and

15           (3) includes information on private sector build-  
16           ings that are not less than 250,000 square feet.

17           (d) PROTECTION OF INFORMATION.—In carrying out  
18           the agreement, the Administrator and the Administrator  
19           of the Environmental Protection Agency shall protect in-  
20           formation in accordance with—

21           (1) section 552(b)(4) of title 5, United States  
22           Code (commonly known as the ‘Freedom of Informa-  
23           tion Act’);

24           (2) subchapter III of chapter 35 of title 44,  
25           United States Code; and



1           (3) any other applicable law (including regula-  
2       tions).

3       **Subtitle B—Worker Training and**  
4           **Capacity Building**

5       **SEC. 111. BUILDING TRAINING AND ASSESSMENT CENTERS.**

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

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

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

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

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

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

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

11       (b) COORDINATION AND NONDUPLICATION.—

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

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

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

1 **SEC. 112. CAREER SKILLS TRAINING.**

2 (a) DEFINITION OF ELIGIBLE ENTITY.—In this sec-  
3 tion, the term “eligible entity” means a nonprofit partner-  
4 ship that—

5 (1) includes the equal participation of industry,  
6 including public or private employers, and labor or-  
7 ganizations, including joint labor-management train-  
8 ing programs;

9 (2) may include workforce investment boards,  
10 community-based organizations, qualified service and  
11 conservation corps, educational institutions, small  
12 businesses, cooperatives, State and local veterans  
13 agencies, and veterans service organizations; and

14 (3) demonstrates—

15 (A) experience in implementing and oper-  
16 ating worker skills training and education pro-  
17 grams;

18 (B) the ability to identify and involve in  
19 training programs carried out under this sec-  
20 tion, target populations of individuals who  
21 would benefit from training and be actively in-  
22 volved in activities relating to energy efficiency  
23 and renewable energy industries; and

24 (C) the ability to help individuals achieve  
25 economic self-sufficiency.

1       (b) ESTABLISHMENT.—The Secretary shall award  
 2 grants to eligible entities to pay the Federal share of asso-  
 3 ciated career skills training programs under which stu-  
 4 dents concurrently receive classroom instruction and on-  
 5 the-job training for the purpose of obtaining an industry-  
 6 related certification to install energy efficient buildings  
 7 technologies, including technologies described in sub-  
 8 section (b)(3) of section 307 of the Energy Conservation  
 9 and Production Act (42 U.S.C. 6836).

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

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

## 16       **Subtitle C—School Buildings**

### 17       **SEC. 121. COORDINATION OF ENERGY RETROFITTING AS-** 18       **SISTANCE FOR SCHOOLS.**

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

21               (1) an elementary school or secondary school  
 22       (as defined in section 8101 of the Elementary and  
 23       Secondary Education Act of 1965 (20 U.S.C.  
 24       7801));

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

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

9           (4) a school operated by the Bureau of Indian  
10      Affairs;

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

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

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

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

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

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

24           (A) to use existing Federal opportunities  
25 more effectively; and

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

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

11 (A) to increase the energy efficiency of  
12 buildings or facilities;

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

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

20 (D) to promote—

21 (i) the maintenance of health, environ-  
22 mental quality, and safety in schools, in-  
23 cluding the ambient air quality, through  
24 energy efficiency, renewable energy, and  
25 energy retrofit projects; and

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

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

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

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

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

22 (d) REPORT.—Not later than 180 days after the date  
23 of enactment of this Act, the Secretary shall submit to  
24 Congress a report describing the implementation of this  
25 section.



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

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

6 **SEC. 201. PURPOSES.**

7 The purposes of this subtitle are—

8 (1) to establish a clear and consistent authority  
9 for industrial efficiency programs of the Department  
10 of Energy;

11 (2) to accelerate the deployment of technologies  
12 and practices that will increase industrial energy ef-  
13 ficiency and improve productivity;

14 (3) to accelerate the development and dem-  
15 onstration of technologies that will assist the deploy-  
16 ment goals of the industrial efficiency programs of  
17 the Department of Energy and increase manufac-  
18 turing efficiency;

19 (4) to stimulate domestic economic growth and  
20 improve industrial productivity and competitiveness;

21 (5) to meet the future workforce needs of in-  
22 dustry; and

23 (6) to strengthen partnerships between Federal  
24 and State governmental agencies and the private  
25 and academic sectors.

1 **SEC. 202. FUTURE OF INDUSTRY PROGRAM AND INDUS-**  
 2 **TRIAL RESEARCH AND ASSESSMENT CEN-**  
 3 **TERS.**

4 (a) FUTURE OF INDUSTRY PROGRAM.—Section 452  
 5 of the Energy Independence and Security Act of 2007 (42  
 6 U.S.C. 17111) is amended—

7 (1) by striking the section heading and insert-  
 8 ing the following: “**FUTURE OF INDUSTRY PRO-**  
 9 **GRAM**”;

10 (2) in subsection (a)(2)—

11 (A) by redesignating subparagraph (E) as  
 12 subparagraph (F); and

13 (B) by inserting after subparagraph (D)  
 14 the following:

15 “(E) water and wastewater treatment fa-  
 16 cilities, including systems that treat municipal,  
 17 industrial, and agricultural waste; and”;

18 (3) by striking subsection (e); and

19 (4) by redesignating subsection (f) as sub-  
 20 section (e).

21 (b) INDUSTRIAL RESEARCH AND ASSESSMENT CEN-  
 22 TERS.—Subtitle D of title IV of the Energy Independence  
 23 and Security Act of 2007 (42 U.S.C. 17111 et seq.) is  
 24 amended by adding at the end the following:

1 **“SEC. 454. INDUSTRIAL RESEARCH AND ASSESSMENT CEN-**  
 2 **TERS.**

3 “(a) DEFINITIONS.—In this section:

4 “(1) ENERGY SERVICE PROVIDER.—The term  
 5 ‘energy service provider’ means—

6 “(A) any business providing technology or  
 7 services to improve the energy efficiency, water  
 8 efficiency, power factor, or load management of  
 9 a manufacturing site or other industrial process  
 10 in an energy-intensive industry (as defined in  
 11 section 452(a)); and

12 “(B) any utility operating under a utility  
 13 energy service project.

14 “(2) INDUSTRIAL RESEARCH AND ASSESSMENT  
 15 CENTER.—The term ‘industrial research and assess-  
 16 ment center’ means—

17 “(A) an institution of higher education-  
 18 based industrial research and assessment center  
 19 that is funded by the Secretary under sub-  
 20 section (b); and

21 “(B) an industrial research and assess-  
 22 ment center at a trade school, community col-  
 23 lege, or union training program that is funded  
 24 by the Secretary under subsection (f).

25 “(b) INSTITUTION OF HIGHER EDUCATION-BASED  
 26 INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—

1           “(1) IN GENERAL.—The Secretary shall provide  
2           funding to institution of higher education-based in-  
3           dustrial research and assessment centers.

4           “(2) PURPOSE.—The purpose of each institu-  
5           tion of higher education-based industrial research  
6           and assessment center shall be—

7                   “(A) to identify opportunities for opti-  
8                   mizing energy efficiency and environmental per-  
9                   formance, including implementation of—

10                           “(i) smart manufacturing;

11                           “(ii) energy management systems;

12                           “(iii) sustainable manufacturing; and

13                           “(iv) information technology advance-  
14                           ments for supply chain analysis, logistics,  
15                           system monitoring, industrial and manu-  
16                           facturing processes, and other purposes;

17                   “(B) to promote applications of emerging  
18                   concepts and technologies in small- and me-  
19                   dium-sized manufacturers (including water and  
20                   wastewater treatment facilities and federally  
21                   owned manufacturing facilities);

22                   “(C) to promote research and development  
23                   for the use of alternative energy sources to sup-  
24                   ply heat, power, and new feedstocks for energy-  
25                   intensive industries;

1           “(D) to coordinate with appropriate Fed-  
2           eral and State research offices;

3           “(E) to provide a clearinghouse for indus-  
4           trial process and energy efficiency technical as-  
5           sistance resources; and

6           “(F) to coordinate with State-accredited  
7           technical training centers and community col-  
8           leges, while ensuring appropriate services to all  
9           regions of the United States.

10       “(c) COORDINATION.—To increase the value and ca-  
11       pabilities of the industrial research and assessment cen-  
12       ters, the centers shall—

13           “(1) coordinate with Manufacturing Extension  
14       Partnership Centers of the National Institute of  
15       Standards and Technology;

16           “(2) coordinate with the Federal Energy Man-  
17       agement Program and the Building Technologies  
18       Program of the Department of Energy to provide  
19       building assessment services to manufacturers;

20           “(3) increase partnerships with the National  
21       Laboratories of the Department of Energy to lever-  
22       age the expertise, technologies, and research and de-  
23       velopment capabilities of the National Laboratories  
24       for national industrial and manufacturing needs;

1           “(4) increase partnerships with energy service  
 2 providers and technology providers to leverage pri-  
 3 vate sector expertise and accelerate deployment of  
 4 new and existing technologies and processes for en-  
 5 ergy efficiency, power factor, and load management;

6           “(5) identify opportunities for reducing green-  
 7 house gas emissions and other air emissions; and

8           “(6) promote sustainable manufacturing prac-  
 9 tices for small- and medium-sized manufacturers.

10          “(d) OUTREACH.—The Secretary shall provide fund-  
 11 ing for—

12           “(1) outreach activities by the industrial re-  
 13 search and assessment centers to inform small- and  
 14 medium-sized manufacturers of the information,  
 15 technologies, and services available; and

16           “(2) coordination activities by each industrial  
 17 research and assessment center to leverage efforts  
 18 with—

19           “(A) Federal and State efforts;

20           “(B) the efforts of utilities and energy  
 21 service providers;

22           “(C) the efforts of regional energy effi-  
 23 ciency organizations; and

24           “(D) the efforts of other industrial re-  
 25 search and assessment centers.

1 “(e) CENTERS OF EXCELLENCE.—

2 “(1) ESTABLISHMENT.—The Secretary shall es-  
3 tablish a Center of Excellence at not more than 5  
4 of the highest-performing industrial research and as-  
5 sessment centers, as determined by the Secretary.

6 “(2) DUTIES.—A Center of Excellence shall co-  
7 ordinate with and advise the industrial research and  
8 assessment centers located in the region of the Cen-  
9 ter of Excellence, including—

10 “(A) by mentoring new directors and staff  
11 of the industrial research and assessment cen-  
12 ters with respect to—

13 “(i) the availability of resources; and

14 “(ii) best practices for carrying out  
15 assessments, including through the partici-  
16 pation of the staff of the Center of Excel-  
17 lence in assessments carried out by new in-  
18 dustrial research and assessment centers;

19 “(B) by providing training to staff and  
20 students at the industrial research and assess-  
21 ment centers on new technologies, practices,  
22 and tools to expand the scope and impact of the  
23 assessments carried out by the centers;

24 “(C) by assisting the industrial research  
25 and assessment centers with specialized tech-

1 nical opportunities, including by providing a  
2 clearinghouse of available expertise and tools to  
3 assist the centers and clients of the centers in  
4 assessing and implementing those opportunities;

5 “(D) by identifying and coordinating with  
6 regional, State, local, and utility energy effi-  
7 ciency programs for the purpose of facilitating  
8 efforts by industrial research and assessment  
9 centers to connect industrial facilities receiving  
10 assessments from those centers with regional,  
11 State, local, and utility energy efficiency pro-  
12 grams that could aid the industrial facilities in  
13 implementing any recommendations resulting  
14 from the assessments;

15 “(E) by facilitating coordination between  
16 the industrial research and assessment centers  
17 and other Federal programs described in para-  
18 graphs (1) through (3) of subsection (c); and

19 “(F) by coordinating the outreach activi-  
20 ties of the industrial research and assessment  
21 centers under subsection (d)(1).

22 “(3) FUNDING.—Subject to the availability of  
23 appropriations, for each fiscal year, out of any  
24 amounts made available to carry out this section



1 under subsection (i), the Secretary shall use not less  
2 than \$500,000 to support each Center of Excellence.

3 “(f) EXPANSION OF INDUSTRIAL RESEARCH AND AS-  
4 SESSMENT CENTERS.—

5 “(1) IN GENERAL.—The Secretary shall provide  
6 funding to establish additional industrial research  
7 and assessment centers at trade schools, community  
8 colleges, and union training programs.

9 “(2) PURPOSE.—

10 “(A) IN GENERAL.—Subject to subpara-  
11 graph (B), to the maximum extent practicable,  
12 an industrial research and assessment center  
13 established under paragraph (1) shall have the  
14 same purpose as an institution of higher edu-  
15 cation-based industrial research center that is  
16 funded by the Secretary under subsection  
17 (b)(1).

18 “(B) CONSIDERATION OF CAPABILITIES.—

19 In evaluating or establishing the purpose of an  
20 industrial research and assessment center es-  
21 tablished under paragraph (1), the Secretary  
22 shall take into consideration the varying capa-  
23 bilities of trade schools, community colleges,  
24 and union training programs.

25 “(g) WORKFORCE TRAINING.—

1           “(1) INTERNSHIPS.—The Secretary shall pay  
2           the Federal share of associated internship programs  
3           under which students work with or for industries,  
4           manufacturers, and energy service providers to im-  
5           plement the recommendations of industrial research  
6           and assessment centers.

7           “(2) APPRENTICESHIPS.—The Secretary shall  
8           pay the Federal share of associated apprenticeship  
9           programs under which—

10                 “(A) students work with or for industries,  
11                 manufacturers, and energy service providers to  
12                 implement the recommendations of industrial  
13                 research and assessment centers; and

14                 “(B) employees of facilities that have re-  
15                 ceived an assessment from an industrial re-  
16                 search and assessment center work with or for  
17                 an industrial research and assessment center to  
18                 gain knowledge on engineering practices and  
19                 processes to improve productivity and energy  
20                 savings.

21           “(3) FEDERAL SHARE.—The Federal share of  
22           the cost of carrying out internship programs de-  
23           scribed in paragraph (1) and apprenticeship pro-  
24           grams described in paragraph (2) shall be 50 per-  
25           cent.

1       “(h) SMALL BUSINESS LOANS.—The Administrator  
 2 of the Small Business Administration shall, to the max-  
 3 imum extent practicable, expedite consideration of applica-  
 4 tions from eligible small business concerns for loans under  
 5 the Small Business Act (15 U.S.C. 631 et seq.) to imple-  
 6 ment recommendations developed by the industrial re-  
 7 search and assessment centers.

8       “(i) FUNDING.—There is authorized to be appro-  
 9 priated to the Secretary to carry out this section  
 10 \$30,000,000 for each fiscal year, to remain available until  
 11 expended.”.

12       (c) CLERICAL AMENDMENT.—The table of contents  
 13 of the Energy Independence and Security Act of 2007 (42  
 14 U.S.C. prec. 17001) is amended by adding at the end of  
 15 the items relating to subtitle D of title IV the following:

“Sec. 454. Industrial research and assessment centers.”.

16 **SEC. 203. SUSTAINABLE MANUFACTURING INITIATIVE.**

17       (a) IN GENERAL.—Part E of title III of the Energy  
 18 Policy and Conservation Act (42 U.S.C. 6341 et seq.) is  
 19 amended by adding at the end the following:

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

21       “(a) IN GENERAL.—As part of the Office of Energy  
 22 Efficiency and Renewable Energy of the Department of  
 23 Energy, the Secretary, on the request of a manufacturer,  
 24 shall carry out onsite technical assessments to identify op-  
 25 portunities for—

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

3           “(2) preventing pollution and minimizing waste;

4           “(3) improving efficient use of water in manu-  
5           facturing processes;

6           “(4) conserving natural resources; and

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

9           “(b) COORDINATION.—To implement any rec-  
10          ommendations resulting from an onsite technical assess-  
11          ment carried out under subsection (a) and to accelerate  
12          the adoption of new and existing technologies and proc-  
13          esses that improve energy efficiency, the Secretary shall  
14          coordinate with—

15               “(1) the Advanced Manufacturing Office of the  
16               Department of Energy;

17               “(2) the Building Technologies Office of the  
18               Department of Energy;

19               “(3) the Federal Energy Management Program  
20               of the Department of Energy; and

21               “(4) the private sector and other appropriate  
22               agencies, including the National Institute of Stand-  
23               ards and Technology.

24           “(c) RESEARCH AND DEVELOPMENT PROGRAM FOR  
25          SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECH-

1 NOLOGIES AND PROCESSES.—As part of the industrial ef-  
 2 ficiency programs of the Department of Energy, the Sec-  
 3 retary shall carry out a joint industry-government partner-  
 4 ship program to research, develop, and demonstrate new  
 5 sustainable manufacturing and industrial technologies and  
 6 processes that maximize the energy efficiency of industrial  
 7 plants, reduce pollution, and conserve natural resources.”.

8 (b) CLERICAL AMENDMENT.—The table of contents  
 9 of the Energy Policy and Conservation Act (42 U.S.C.  
 10 prec. 6201) is amended by adding at the end of the items  
 11 relating to part E of title III the following:

“Sec. 376. Sustainable manufacturing initiative.”.

12 **SEC. 204. CONFORMING AMENDMENTS.**

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

15 (b) Sections 131, 132, 133, 2103, and 2107 of the  
 16 Energy Policy Act of 1992 (42 U.S.C. 6348, 6349, 6350,  
 17 13453, 13456) are repealed.

18 (c) Section 2101(a) of the Energy Policy Act of 1992  
 19 (42 U.S.C. 13451(a)) is amended in the third sentence  
 20 by striking “sections 2102, 2103, 2104, 2105, 2106,  
 21 2107, and 2108” and inserting “sections 2102, 2104,  
 22 2105, 2106, and 2108 of this Act and section 376 of the  
 23 Energy Policy and Conservation Act,”.

## **Subtitle B—Extended Product System Rebate Program**

### **SEC. 211. EXTENDED PRODUCT SYSTEM REBATE PROGRAM.**

(a) DEFINITIONS.—In this section:

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

(2) ELECTRONIC CONTROL.—The term “electronic control” means—

(A) a power converter; or

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

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

(A) offers variable speed or multispeed operation;

(B) offers partial load control that reduces input energy requirements (as measured in kilowatt-hours) as compared to identified base levels set by the Secretary; and

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

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

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

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

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

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

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

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

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

1 (ii) was previously used prior to, and  
2 was placed back into service during, cal-  
3 endar year 2020 or 2021.

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

9 (c) QUALIFIED ENTITIES.—

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

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

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

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



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

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

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

7 and

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

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

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

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

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

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

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

13 (d) AUTHORIZED AMOUNT OF REBATE.—

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

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

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

22 (ii) the electronic control; and

23 (B) \$25.

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

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

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

## 8 **Subtitle C—Transformer Rebate** 9 **Program**

### 10 **SEC. 221. ENERGY EFFICIENT TRANSFORMER REBATE PRO-** 11 **GRAM.**

12 (a) DEFINITIONS.—In this section:

13 (1) QUALIFIED ENERGY EFFICIENT TRANS-  
14 FORMER.—The term “qualified energy efficient  
15 transformer” means a transformer that meets or ex-  
16 ceeds the applicable energy conservation standards  
17 described in the tables in subsection (b)(2) and  
18 paragraphs (1) and (2) of subsection (c) of section  
19 431.196 of title 10, Code of Federal Regulations (as  
20 in effect on the date of enactment of this Act).

21 (2) QUALIFIED ENERGY INEFFICIENT TRANS-  
22 FORMER.—The term “qualified energy inefficient  
23 transformer” means a transformer with an equal  
24 number of phases and capacity to a transformer de-  
25 scribed in any of the tables in subsection (b)(2) and

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

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

8 (B)(i) was manufactured between January  
9 1, 1987, and December 31, 2008, for a trans-  
10 former with an equal number of phases and ca-  
11 pacity as a transformer described in the table  
12 in subsection (b)(2) of section 431.196 of title  
13 10, Code of Federal Regulations (as in effect on  
14 the date of enactment of this Act); or

15 (ii) was manufactured between January 1,  
16 1992, and December 31, 2011, for a trans-  
17 former with an equal number of phases and ca-  
18 pacity as a transformer described in the table  
19 in paragraph (1) or (2) of subsection (c) of that  
20 section (as in effect on the date of enactment  
21 of this Act).

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

1 company that fulfills the requirements of subsection  
2 (d).

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

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

14 (1) that the entity purchased a qualified energy  
15 efficient transformer;

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

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

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

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

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

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

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

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

16 (A) the qualified energy inefficient trans-  
 17 former; and

18 (B) the qualified energy efficient trans-  
 19 former; or

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

1 (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
 2 authorized to be appropriated to carry out this section  
 3 \$5,000,000 for each of fiscal years 2020 and 2021, to re-  
 4 main available until expended.

5 (f) TERMINATION OF EFFECTIVENESS.—The author-  
 6 ity provided by this section terminates on December 31,  
 7 2021.

## 8 **TITLE III—FEDERAL AGENCY** 9 **ENERGY EFFICIENCY**

### 10 **SEC. 301. ENERGY-EFFICIENT AND ENERGY-SAVING INFOR-** 11 **MATION TECHNOLOGIES.**

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

15 “(h) FEDERAL IMPLEMENTATION STRATEGY FOR  
 16 ENERGY-EFFICIENT AND ENERGY-SAVING INFORMATION  
 17 TECHNOLOGIES.—

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

19 “(A) DIRECTOR.—The term ‘Director’  
 20 means the Director of the Office of Manage-  
 21 ment and Budget.

22 “(B) INFORMATION TECHNOLOGY.—The  
 23 term ‘information technology’ has the meaning  
 24 given that term in section 11101 of title 40,  
 25 United States Code.

1           “(2) DEVELOPMENT OF IMPLEMENTATION  
2 STRATEGY.—Not later than 1 year after the date of  
3 enactment of the Energy Savings and Industrial  
4 Competitiveness Act of 2019, each Federal agency  
5 shall coordinate with the Director, the Secretary,  
6 and the Administrator of the Environmental Protec-  
7 tion Agency to develop an implementation strategy  
8 (including best-practices and measurement and  
9 verification techniques) for the maintenance, pur-  
10 chase, and use by the Federal agency of energy-effi-  
11 cient and energy-saving information technologies at  
12 or for facilities owned and operated by the Federal  
13 agency, taking into consideration the performance  
14 goals established under paragraph (4).

15           “(3) ADMINISTRATION.—In developing an im-  
16 plementation strategy under paragraph (2), each  
17 Federal agency shall consider—

18                   “(A) advanced metering infrastructure;

19                   “(B) energy efficient data center strategies  
20 and methods of increasing asset and infrastruc-  
21 ture utilization;

22                   “(C) advanced power management tools;

23                   “(D) building information modeling, in-  
24 cluding building energy management;



1           “(E) secure telework and travel substi-  
2           tution tools; and

3           “(F) mechanisms to ensure that the agen-  
4           cy realizes the energy cost savings of increased  
5           efficiency and utilization.

6           “(4) PERFORMANCE GOALS.—

7           “(A) IN GENERAL.—Not later than 180  
8           days after the date of enactment of the Energy  
9           Savings and Industrial Competitiveness Act of  
10          2019, the Director, in consultation with the  
11          Secretary, shall establish performance goals for  
12          evaluating the efforts of Federal agencies in im-  
13          proving the maintenance, purchase, and use of  
14          energy-efficient and energy-saving information  
15          technology at or for facilities owned and oper-  
16          ated by the Federal agencies.

17          “(B) BEST PRACTICES.—The Chief Infor-  
18          mation Officers Council established under sec-  
19          tion 3603 of title 44, United States Code, shall  
20          recommend best practices for the attainment of  
21          the performance goals established under sub-  
22          paragraph (A), which shall include, to the ex-  
23          tent applicable by law, consideration by a Fed-  
24          eral agency of the use of—

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

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

5 “(5) REPORTS.—

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

12 “(B) OMB GOVERNMENT EFFICIENCY RE-  
13 PORTS AND SCORECARDS.—Effective beginning  
14 not later than October 1, 2019, the Director  
15 shall include in the annual report and scorecard  
16 of the Director required under section 528 of  
17 the Energy Independence and Security Act of  
18 2007 (42 U.S.C. 17144) a description of the ef-  
19 forts and results of Federal agencies under this  
20 subsection.

21 “(C) USE OF EXISTING REPORTING STRUC-  
22 TURES.—The Director may require Federal  
23 agencies to submit any information required to  
24 be submitted under this subsection though re-  
25 porting structures in use as of the date of en-

1           actment of the Energy Savings and Industrial  
2           Competitiveness Act of 2019.”.

3   **SEC. 302. ENERGY EFFICIENT DATA CENTERS.**

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

6           (1) in subsection (b)—

7                   (A) in paragraph (2)(D)(iv), by striking  
8           “determined by the organization” and inserting  
9           “proposed by the stakeholders”; and

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

11           (2) by striking subsections (c) through (g) and  
12   inserting the following:

13           “(c) STAKEHOLDER INVOLVEMENT.—

14                   “(1) IN GENERAL.—The Secretary and the Ad-  
15           ministrator shall carry out subsection (b) in collabo-  
16           ration with the information technology industry and  
17           other key stakeholders, with the goal of producing  
18           results that accurately reflect the most relevant and  
19           useful information.

20                   “(2) CONSIDERATIONS.—In carrying out the  
21           collaboration described in paragraph (1), the Sec-  
22           retary and the Administrator shall pay particular at-  
23           tention to organizations that—

24                   “(A) have members with expertise in en-  
25           ergy efficiency and in the development, oper-

1           ation, and functionality of data centers, infor-  
2           mation technology equipment, and software, in-  
3           cluding representatives of hardware manufac-  
4           turers, data center operators, and facility man-  
5           agers;

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

13          “(C) follow—

14               “(i) commonly accepted procedures  
15               for the development of specifications; and

16               “(ii) accredited standards development  
17               processes; or

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

21          “(d) MEASUREMENTS AND SPECIFICATIONS.—The  
22          Secretary and the Administrator shall consider and assess  
23          the adequacy of the specifications, measurements, best  
24          practices, and benchmarks described in subsection (b) for  
25          use by the Federal Energy Management Program, the En-

1 ergy Star Program, and other efficiency programs of the  
2 Department of Energy or the Environmental Protection  
3 Agency.

4 “(e) STUDY.—

5 “(1) DEFINITION OF REPORT.—In this sub-  
6 section, the term ‘report’ means the report of the  
7 Lawrence Berkeley National Laboratory entitled  
8 ‘United States Data Center Energy Usage Report’  
9 and dated June 2016, which was prepared as an up-  
10 date to the ‘Report to Congress on Server and Data  
11 Center Energy Efficiency’, published on August 2,  
12 2007, pursuant to section 1 of Public Law 109–431  
13 (120 Stat. 2920).

14 “(2) STUDY.—Not later than 4 years after the  
15 date of enactment of the Energy Savings and Indus-  
16 trial Competitiveness Act of 2019, the Secretary, in  
17 collaboration with the Administrator, shall make  
18 available to the public an update to the report that  
19 provides—

20 “(A) a comparison and gap analysis of the  
21 estimates and projections contained in the re-  
22 port with new data regarding the period from  
23 2015 through 2019;

24 “(B) an analysis considering the impact of  
25 information technologies, including virtualiza-

1           tion and cloud computing, in the public and pri-  
2           vate sectors;

3           “(C) an evaluation of the impact of the  
4           combination of cloud platforms, mobile devices,  
5           social media, and big data on data center en-  
6           ergy usage;

7           “(D) an evaluation of water usage in data  
8           centers and recommendations for reductions in  
9           that water usage; and

10          “(E) updated projections and recommenda-  
11          tions for best practices through fiscal year  
12          2025.

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

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

23          “(2) EVALUATIONS.—Each Federal agency  
24          shall consider having the data centers of the agency  
25          evaluated once every 4 years by energy practitioners

1 certified pursuant to the program, whenever prac-  
2 ticable using certified practitioners employed by the  
3 agency.

4 “(g) OPEN DATA INITIATIVE.—

5 “(1) IN GENERAL.—The Secretary, in collabo-  
6 ration with key stakeholders and the Director of the  
7 Office of Management and Budget, shall establish  
8 an open data initiative relating to energy usage at  
9 federally owned and operated data centers, with the  
10 purpose of making the data available and accessible  
11 in a manner that encourages further data center in-  
12 novation, optimization, and consolidation.

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

16 “(h) INTERNATIONAL SPECIFICATIONS AND  
17 METRICS.—The Secretary, in collaboration with key  
18 stakeholders, shall actively participate in efforts to har-  
19 monize global specifications and metrics for data center  
20 energy and water efficiency.

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

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

7 **TITLE IV—REGULATORY**  
 8 **PROVISIONS**  
 9 **Subtitle A—Third-Party Certifi-**  
 10 **cation Under Energy Star Pro-**  
 11 **gram**

12 **SEC. 401. THIRD-PARTY CERTIFICATION UNDER ENERGY**  
 13 **STAR PROGRAM.**

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

17 “(e) THIRD-PARTY CERTIFICATION.—

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



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

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

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

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

14           “(4) TERMINATION.—

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

22                   “(B) RESUMPTION.—A termination for a  
23                   program partner under subparagraph (A) shall  
24                   cease if the program partner complies with all

1 Energy Star program requirements for a period  
 2 of at least 3 years.”.

3 **Subtitle B—Federal Green**  
 4 **Buildings**

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

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

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

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

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

22 (3) in paragraph (2)—

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

(B) by striking subparagraph (A) and inserting the following:

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

“(i) be carried out by the Federal Director to compare and evaluate standards; and

“(ii) allow any developer or administrator of a rating system or certification system to be included in the review;”;

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

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

(E) by adding at the end the following:

“(G) a finding that, for all credits addressing the sourcing of grown, harvested, or mined materials, the system rewards the use of products that have obtained certifications of responsible sourcing, such as certifications provided by the Sustainable Forestry Initiative, the Forest Stewardship Council, the American Tree Farm

1           System, or the Programme for the Endorse-  
2           ment of Forest Certification; and

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

6   **Subtitle C—Energy and Water Per-**  
7   **formance Requirements for Fed-**  
8   **eral Buildings**

9   **SEC. 421. ENERGY AND WATER PERFORMANCE REQUIRE-**  
10   **MENTS FOR FEDERAL BUILDINGS.**

11       (a) IN GENERAL.—Section 543 of the National En-  
12   ergy Conservation Policy Act (42 U.S.C. 8253) is amend-  
13   ed—

14           (1) in the section heading, by inserting “**AND**  
15   **WATER**” after “**ENERGY**”;

16           (2) by striking subsection (a) and inserting the  
17   following:

18       “(a) ENERGY AND WATER PERFORMANCE REQUIRE-  
19   MENTS FOR FEDERAL BUILDINGS.—

20           “(1) ENERGY REQUIREMENTS.—Subject to  
21   paragraph (3), to the maximum extent life cycle  
22   cost-effective (as defined in subsection (f)(1)), each  
23   agency shall apply energy conservation measures to,  
24   and shall improve the design for the construction of,  
25   the Federal buildings of the agency (including each

1 industrial or laboratory facility) so that the energy  
 2 consumption per gross square foot of the Federal  
 3 buildings of the agency in fiscal years 2020 through  
 4 2027 is reduced, as compared with the energy con-  
 5 sumption per gross square foot of the Federal build-  
 6 ings of the agency in fiscal year 2018, by the per-  
 7 centage specified in the following table:

<b>“Fiscal Year</b>	<b>Percentage Reduction</b>
2020 .....	2.5
2021 .....	5
2022 .....	7.5
2023 .....	10
2024 .....	12.5
2025 .....	15
2026 .....	17.5
2027 .....	20.

8 “(2) WATER REQUIREMENTS.—Subject to para-  
 9 graph (3), the head of each Federal agency shall, for  
 10 each of fiscal years 2020 through 2030, improve  
 11 water use efficiency and management, including  
 12 stormwater management, at facilities of the agency  
 13 by reducing agency potable water consumption in-  
 14 tensity—

15 “(A) by 54 percent by fiscal year 2030,  
 16 relative to the water consumption of the agency  
 17 in fiscal year 2007, through reductions of 2  
 18 percent each fiscal year (as measured in gallons  
 19 per gross square foot);

“(B) by reducing the industrial, landscaping, and agricultural water consumption of the agency, as compared to a baseline of that consumption by the agency in fiscal year 2010, through reductions of 2 percent each fiscal year (as measured in gallons); and

“(C) by installing appropriate infrastructure features on federally owned property to improve stormwater and wastewater management.

“(3) ENERGY AND WATER INTENSIVE BUILDING EXCLUSION.—

“(A) IN GENERAL.—An agency may exclude from the requirements of paragraphs (1) and (2) any building (including the associated energy consumption and gross square footage of the building) in which energy and water intensive activities are carried out.

“(B) REPORTS.—Each agency shall identify and include in each report under section 548(a) each building designated by the agency for exclusion under subparagraph (A) during the period covered by the report.

“(4) RECOMMENDATIONS.—Not later than December 31, 2026, the Secretary shall—

1           “(A) review the results of the implementa-  
2           tion of the energy and water performance re-  
3           quirements established under paragraph (1);

4           “(B) submit to Congress recommendations  
5           concerning energy performance requirements  
6           for fiscal years 2028 through 2037; and

7           “(C) submit to Congress recommendations  
8           concerning water performance requirements for  
9           fiscal years 2031 through 2040.”;  
10          (3) in subsection (b)—

11                (A) in the subsection heading, by inserting  
12                “AND WATER” after “ENERGY”;

13                (B) by redesignating paragraphs (2)  
14                through (4) as paragraphs (3) through (5), re-  
15                spectively; and

16                (C) by striking paragraph (1) and insert-  
17                ing the following:

18                “(1) IN GENERAL.—Each agency shall—

19                    “(A) not later than October 1, 2019, to  
20                    the maximum extent practicable, begin install-  
21                    ing in Federal buildings owned by the United  
22                    States all energy and water conservation meas-  
23                    ures determined by the Secretary to be life cycle  
24                    cost-effective (as defined in subsection (f)(1));  
25                    and

1 “(B) complete the installation described in  
 2 subparagraph (A) as soon as practicable after  
 3 the date referred to in that subparagraph.

4 “(2) EXPLANATION OF NONCOMPLIANCE.—

5 “(A) IN GENERAL.—If an agency fails to  
 6 comply with paragraph (1), the agency shall  
 7 submit to the Secretary, using guidelines devel-  
 8 oped by the Secretary, an explanation of the  
 9 reasons for the failure.

10 “(B) REPORT TO CONGRESS.—Not later  
 11 than October 1, 2021, and every 2 years there-  
 12 after, the Secretary shall submit to Congress a  
 13 report that describes any noncompliance by an  
 14 agency with the requirements of paragraph  
 15 (1).”;

16 (4) in subsection (c)(1)—

17 (A) in subparagraph (A)—

18 (i) in the matter preceding clause (i),  
 19 by striking “An agency” and inserting  
 20 “The head of each agency”; and

21 (ii) by inserting “or water” after “en-  
 22 ergy” each place it appears; and

23 (B) in subparagraph (B)(i), by inserting  
 24 “or water” after “energy”;



1           (5) in subsection (d)(2), by inserting “and  
2       water” after “energy”;

3           (6) in subsection (e)—

4               (A) in the subsection heading, by inserting  
5       “and Water” after “Energy”;

6               (B) in paragraph (1)—

7                   (i) in the first sentence—

8                       (I) by striking “October 1, 2012”  
9       and inserting “October 1, 2020”;

10                    (II) by inserting “and water”  
11       after “energy”; and

12                    (III) by inserting “and water”  
13       after “electricity”;

14                   (ii) in the second sentence, by insert-  
15       ing “and water” after “electricity”; and

16                    (iii) in the fourth sentence, by insert-  
17       ing “and water” after “energy”;

18               (C) in paragraph (2)—

19                   (i) in subparagraph (A)—

20                       (I) by striking “and” before  
21       “Federal”; and

22                       (II) by inserting “and any other  
23       person the Secretary deems nec-  
24       essary,” before “shall”;

25                   (ii) in subparagraph (B)—

1 (I) in clause (i)(II), by inserting  
 2 “and water” after “energy” each  
 3 place it appears;

4 (II) in clause (ii), by inserting  
 5 “and water” after “energy”; and

6 (III) in clause (iv), by inserting  
 7 “and water” after “energy”; and

8 (iii) by adding at the end the fol-  
 9 lowing:

10 “(C) UPDATE.—Not later than 180 days  
 11 after the date of enactment of this subpara-  
 12 graph, the Secretary shall update the guidelines  
 13 established under subparagraph (A) to take into  
 14 account water efficiency requirements under  
 15 this section.”;

16 (D) in paragraph (3), in the matter pre-  
 17 ceding subparagraph (A), by striking “estab-  
 18 lished under paragraph (2)” and inserting “up-  
 19 dated under paragraph (2)(C)”;

20 (E) in paragraph (4)—

21 (i) in subparagraph (A)—

22 (I) by striking “this paragraph”  
 23 and inserting “the Energy Savings  
 24 and Industrial Competitiveness Act of  
 25 2019”; and

1 (II) by inserting “and water” be-  
 2 fore “use in”; and

3 (ii) in subparagraph (B)(ii), in the  
 4 matter preceding clause (I), by inserting  
 5 “and water” after “energy”; and

6 (7) in subsection (f)—

7 (A) in paragraph (1)—

8 (i) by redesignating subparagraphs  
 9 (E), (F), and (G) as subparagraphs (F),  
 10 (G), and (H), respectively; and

11 (ii) by inserting after subparagraph  
 12 (D) the following:

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

21 (B) in paragraph (2)—

22 (i) in subparagraph (A), by inserting  
 23 “and water” before “use”;

24 (ii) in subparagraph (B)—

1 (I) by striking “energy” before  
2 “efficiency”; and

3 (II) by inserting “or water” be-  
4 fore “use”; and

5 (iii) by adding at the end the fol-  
6 lowing:

7 “(C) ENERGY MANAGEMENT SYSTEM.—An  
8 energy manager designated for a facility under  
9 subparagraph (A) shall take into consider-  
10 ation—

11 “(i) the use of a system to manage  
12 energy and water use at the facility; and

13 “(ii) the applicability of the certifi-  
14 cation of the facility in accordance with the  
15 International Organization for Standard-  
16 ization standard numbered 50001 and en-  
17 titled ‘Energy Management Systems’.”;

18 (C) by striking paragraphs (3) and (4) and  
19 inserting the following:

20 “(3) ENERGY AND WATER EVALUATIONS AND  
21 COMMISSIONING.—

22 “(A) EVALUATIONS.—Except as provided  
23 in subparagraph (B), not later than the date  
24 that is 180 days after the date of enactment of  
25 the Energy Savings and Industrial Competitive-

1           ness Act of 2019, and annually thereafter, each  
2           energy manager shall complete, for the pre-  
3           ceding calendar year, a comprehensive energy  
4           and water evaluation and recommissioning or  
5           retrocommissioning for approximately 25 per-  
6           cent of the facilities of the applicable agency  
7           that meet the criteria under paragraph (2)(B)  
8           in a manner that ensures that an evaluation of  
9           each facility is completed not less frequently  
10          than once every 4 years.

11           “(B) EXCEPTIONS.—An evaluation and re-  
12          commissioning or retrocommissioning shall not  
13          be required under subparagraph (A) with re-  
14          spect to a facility that, as of the date on which  
15          the evaluation and recommissioning or retro-  
16          commissioning would occur—

17               “(i) has had a comprehensive energy  
18               and water evaluation during the preceding  
19               8-year period;

20               “(ii)(I) has been commissioned, re-  
21               commissioned, or retrocommissioned dur-  
22               ing the preceding 10-year period; or

23               “(II) is under ongoing commissioning,  
24               recommissioning, or retrocommissioning;

1 “(iii) has not had a major change in  
 2 function or use since the previous evalua-  
 3 tion and recommissioning or retrocommis-  
 4 sioning;

5 “(iv) has been benchmarked with pub-  
 6 lic disclosure under paragraph (8) during  
 7 the preceding calendar year; and

8 “(v)(I) based on the benchmarking de-  
 9 scribed in clause (iv), has achieved at a fa-  
 10 cility level the most recent cumulative en-  
 11 ergy savings target under subsection (a)  
 12 compared to the earlier of—

13 “(aa) the date of the most recent  
 14 evaluation; or

15 “(bb) the date—

16 “(AA) of the most recent  
 17 commissioning, recommissioning,  
 18 or retrocommissioning; or

19 “(BB) on which ongoing  
 20 commissioning began; or

21 “(II) has a long-term contract in  
 22 place guaranteeing energy savings at least  
 23 as great as the energy savings target under  
 24 subclause (I).

1           “(4) IMPLEMENTATION OF IDENTIFIED ENERGY  
2           AND WATER EFFICIENCY MEASURES.—Not later  
3           than 2 years after the date of completion of each  
4           evaluation under paragraph (3), each energy man-  
5           ager shall—

6                   “(A) implement any energy- or water-sav-  
7                   ing measure that the Federal agency identified  
8                   in the evaluation that is life cycle cost-effective;  
9                   and

10                   “(B) bundle individual measures of varying  
11                   paybacks together into combined projects.”;

12                   (D) in paragraph (7)(B)(ii)(II), by insert-  
13                   ing “and water” after “energy”; and

14                   (E) in paragraph (9)(A), in the matter  
15                   preceding clause (i), by inserting “and water”  
16                   after “energy”.

17           (b) CONFORMING AMENDMENT.—The table of con-  
18           tents for the National Energy Conservation Policy Act  
19           (Public Law 95–619; 92 Stat. 3206) is amended by strik-  
20           ing the item relating to section 543 and inserting the fol-  
21           lowing:

          “Sec. 543. Energy and water management requirements.”.

22   **SEC. 422. FEDERAL ENERGY MANAGEMENT PROGRAM.**

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

1 “(h) FEDERAL ENERGY MANAGEMENT PROGRAM.—

2 “(1) IN GENERAL.—The Secretary shall estab-  
 3 lish a program, to be known as the ‘Federal Energy  
 4 Management Program’ (referred to in this sub-  
 5 section as the ‘Program’), to facilitate the implemen-  
 6 tation by the Federal Government of cost-effective  
 7 energy and water management and energy-related  
 8 investment practices—

9 “(A) to coordinate and strengthen Federal  
 10 energy and water resilience; and

11 “(B) to promote environmental steward-  
 12 ship.

13 “(2) PROGRAM ACTIVITIES.—

14 “(A) STRATEGIC PLANNING AND TECH-  
 15 NICAL ASSISTANCE.—Under the Program, the  
 16 Federal Director appointed under paragraph  
 17 (3)(A) (referred to in this subsection as the  
 18 ‘Federal Director’) shall—

19 “(i) provide technical assistance and  
 20 project implementation support and guid-  
 21 ance to Federal agencies to identify, imple-  
 22 ment, procure, and track energy and water  
 23 conservation measures required under this  
 24 Act and under other provisions of law (in-  
 25 cluding regulations);



1 “(ii) in coordination with the Admin-  
2 istrator of the General Services Adminis-  
3 tration, establish appropriate procedures,  
4 methods, and best practices for use by  
5 Federal agencies to select, monitor, and  
6 terminate contracts entered into under sec-  
7 tion 546 with utilities;

8 “(iii) in coordination with the Federal  
9 Acquisition Regulatory Council, establish  
10 appropriate procedures, methods, and best  
11 practices for use by Federal agencies to se-  
12 lect, monitor, and terminate contracts en-  
13 tered into under section 801 with energy  
14 service contractors and utilities;

15 “(iv) establish and maintain internet-  
16 based information resources and project  
17 tracking systems and tools for energy and  
18 water management;

19 “(v) coordinate comprehensive and  
20 strategic approaches to energy and water  
21 resilience planning for Federal agencies;  
22 and

23 “(vi) establish a recognition program  
24 for Federal achievement in energy and  
25 water management, energy-related invest-

1           ment practices, environmental stewardship,  
2           and other relevant areas, through events  
3           such as individual recognition award cere-  
4           monies and public announcements.

5           “(B) ENERGY AND WATER MANAGEMENT  
6           AND REPORTING.—Under the Program, the  
7           Federal Director shall—

8                   “(i) track and report on the progress  
9                   of Federal agencies in meeting the require-  
10                  ments of the agency under this section;

11                  “(ii) make publicly available annual  
12                  Federal agency performance data required  
13                  under—

14                           “(I) this section and sections 544  
15                           through 548; and

16                           “(II) section 203 of the Energy  
17                           Policy Act of 2005 (42 U.S.C.  
18                           15852);

19                           “(iii)(I) collect energy and water use  
20                           and consumption data from each Federal  
21                           agency; and

22                           “(II) based on that data, submit to  
23                           each Federal agency a report that will fa-  
24                           cilitate the energy and water management,  
25                           energy-related investment practices, and

1 environmental stewardship of the agency in  
2 support of Federal goals under this Act  
3 and under other provisions of law (includ-  
4 ing regulations);

5 “(iv)(I) establish new Federal building  
6 energy efficiency standards; and

7 “(II) in consultation with the Admin-  
8 istrator of the General Services Adminis-  
9 tration, acting through the head of the Of-  
10 fice of High-Performance Green Buildings,  
11 establish and implement Federal building  
12 sustainable design principles for Federal  
13 facilities;

14 “(v) manage the implementation of  
15 Federal building energy efficiency stand-  
16 ards established under section 305 of the  
17 Energy Conservation and Production Act  
18 (42 U.S.C. 6834); and

19 “(vi) designate products that meet the  
20 highest energy conservation standards for  
21 categories not covered under the Energy  
22 Star program established under section  
23 324A of the Energy Policy and Conserva-  
24 tion Act (42 U.S.C. 6294a).

1                   “(C) FEDERAL POLICY COORDINATION.—

2                   Under the Program, the Federal Director  
3                   shall—

4                   “(i) develop and implement accredited  
5                   training consistent with existing Federal  
6                   programs and activities—

7                   “(I) relating to energy and water  
8                   use, management, and resilience in  
9                   Federal buildings, energy-related in-  
10                  vestment practices, and environmental  
11                  stewardship; and

12                  “(II) that includes in-person  
13                  training, internet-based programs,  
14                  and national in-person training  
15                  events;

16                  “(ii) coordinate and facilitate energy  
17                  and water management, energy-related in-  
18                  vestment practices, and environmental  
19                  stewardship through the Interagency En-  
20                  ergy Management Task Force established  
21                  under section 547; and

22                  “(iii) report on the implementation of  
23                  the priorities of the President, including  
24                  Executive orders, relating to energy and

1 water use in Federal buildings, in coordi-  
2 nation with—

3 “(I) the Office of Management  
4 and Budget;

5 “(II) the Council on Environ-  
6 mental Quality; and

7 “(III) any other entity, as consid-  
8 ered necessary by the Federal Direc-  
9 tor.

10 “(D) FACILITY AND FLEET OPTIMIZA-  
11 TION.—Under the Program, the Federal Direc-  
12 tor shall develop guidance, supply assistance to,  
13 and track the progress of Federal agencies—

14 “(i) in conducting portfolio-wide facil-  
15 ity energy and water resilience planning  
16 and project integration;

17 “(ii) in building new construction and  
18 major renovations to meet the sustainable  
19 design and energy and water performance  
20 standards required under this section;

21 “(iii) in developing guidelines for—

22 “(I) building commissioning; and

23 “(II) facility operations and  
24 maintenance; and

1 “(iv) in coordination with the Admin-  
2 istrator of the General Services Adminis-  
3 tration, in meeting statutory and agency  
4 goals for Federal fleet vehicles.

5 “(3) FEDERAL DIRECTOR.—

6 “(A) APPOINTMENT.—The Secretary shall  
7 appoint an individual to serve as Federal Direc-  
8 tor of the Program, which shall be a career po-  
9 sition in the Senior Executive service, to man-  
10 age the Program and carry out the activities of  
11 the Program described in paragraph (2).

12 “(B) DUTIES.—The Federal Director  
13 shall—

14 “(i) oversee, manage, and administer  
15 the Program;

16 “(ii) provide leadership in energy and  
17 water management, energy-related invest-  
18 ment practices, and environmental stew-  
19 ardship through coordination with Federal  
20 agencies and other appropriate entities;  
21 and

22 “(iii) establish a management council  
23 to advise the Federal Director that shall—

24 “(I) convene not less frequently  
25 than once every quarter; and

1 “(II) consist of representatives  
2 from—

3 “(aa) the Council on Envi-  
4 ronmental Quality;

5 “(bb) the Office of Manage-  
6 ment and Budget; and

7 “(cc) the Office of Federal  
8 High-Performance Green Build-  
9 ings in the General Services Ad-  
10 ministration.

11 “(4) SAVINGS CLAUSE.—Nothing in this sub-  
12 section impedes, supersedes, or alters the authority  
13 of the Secretary to carry out the remainder of this  
14 section or section 305 of the Energy Conservation  
15 and Production Act (42 U.S.C. 6834).

16 “(5) AUTHORIZATION OF APPROPRIATIONS.—  
17 There is authorized to be appropriated to the Sec-  
18 retary to carry out this subsection \$36,000,000 for  
19 each of fiscal years 2020 through 2030.”.

20 **SEC. 423. FEDERAL BUILDING ENERGY EFFICIENCY PER-**  
21 **FORMANCE STANDARDS; CERTIFICATION**  
22 **SYSTEM AND LEVEL FOR GREEN BUILDINGS.**

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

1           (1) in each of paragraphs (1) through (16), by  
 2           inserting a paragraph heading, the text of which is  
 3           comprised of the term defined in that paragraph;

4           (2) by redesignating paragraphs (2) through  
 5           (16) as paragraphs (3), (4), (6), (7), (8), (10), (12),  
 6           (13), (14), (15), (16), (9), (17), (5), and (2), respec-  
 7           tively, and moving the paragraphs so as to appear  
 8           in numerical order; and

9           (3) by inserting after paragraph (10) (as so re-  
 10          designated) the following:

11           “(11) MAJOR RENOVATION.—The term ‘major  
 12          renovation’ means a modification of the energy sys-  
 13          tems of a building that is sufficiently extensive to  
 14          ensure that the entire building can achieve compli-  
 15          ance with applicable energy standards for new build-  
 16          ings, as established by the Secretary.”.

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

20           (1) in subsection (a)(3)—

21           (A) by striking “(3)(A) Not later than”  
 22           and all that follows through subparagraph (B)  
 23           and inserting the following:



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

4           “(A) REVISED FEDERAL BUILDING EN-  
 5           ERGY EFFICIENCY PERFORMANCE STAND-  
 6           ARDS.—

7           “(i) IN GENERAL.—Not later than 1  
 8           year after the date of enactment of the En-  
 9           ergy Savings and Industrial Competitive-  
 10          ness Act of 2019, the Secretary shall es-  
 11          tablish, by regulation, revised Federal  
 12          building energy efficiency performance  
 13          standards that require that—

14           “(I) subject to clause (ii), new  
 15          Federal buildings and Federal build-  
 16          ings with major renovations—

17           “(aa) meet or exceed the  
 18          most recently published version  
 19          of the International Energy Con-  
 20          servation Code (in the case of  
 21          residential buildings) or  
 22          ASHRAE Standard 90.1 (in the  
 23          case of commercial buildings) as  
 24          of the date of enactment of the

1 Energy Savings and Industrial  
2 Competitiveness Act of 2019; and

3 “(bb) meet or exceed the en-  
4 ergy provisions of the State and  
5 local building codes applicable to  
6 the building if the codes are more  
7 stringent than the most recently  
8 published version of the Inter-  
9 national Energy Conservation  
10 Code or ASHRAE Standard 90.1  
11 as of the date of enactment of  
12 the Energy Savings and Indus-  
13 trial Competitiveness Act of  
14 2019, as applicable;

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

19 “(aa) the buildings shall be  
20 designed to achieve energy con-  
21 sumption levels that are not less  
22 than 30 percent below the levels  
23 established in the most recently  
24 published version of the Inter-  
25 national Energy Conservation

1 Code or the ASHRAE Standard,  
2 as of the date of enactment of  
3 the Energy Savings and Indus-  
4 trial Competitiveness Act of  
5 2019, as appropriate; and

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

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

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

1 “(ii) EXCEPTION.—Clause (i)(I) shall  
 2 not apply to the unaltered portions of Fed-  
 3 eral buildings and systems that have un-  
 4 dergone major renovations.

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

15 (B) in subparagraph (C), by striking “(C)  
 16 In the budget request” and inserting the fol-  
 17 lowing:

18 “(C) BUDGET REQUEST.—In the budget  
 19 request”; and

20 (C) by striking subparagraph (D) and in-  
 21 serting the following:

22 “(D) CERTIFICATION FOR GREEN BUILD-  
 23 INGS.—

24 “(i) SUSTAINABLE DESIGN PRIN-  
 25 CIPLES.—Sustainable design principles

1 shall be applied to the siting, design, and  
2 construction of buildings covered by this  
3 subparagraph.

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

20 “(iii) BASIS FOR SELECTION.—The  
21 determination of the certification systems  
22 under clause (ii) shall be based on ongoing  
23 review of the findings of the Federal Direc-  
24 tor under section 436(h) of the Energy  
25 Independence and Security Act of 2007

1 (42 U.S.C. 17092(h)) and the criteria de-  
2 scribed in clause (v).

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

6 “(I) make a separate determina-  
7 tion for all or part of each system;  
8 and

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

13 “(aa) are based on relevant  
14 technical data;

15 “(bb) use and reward eval-  
16 uation of health, safety, and envi-  
17 ronmental risks and impacts  
18 across the lifecycle of the build-  
19 ing product, material, brand, or  
20 technology, including methodolo-  
21 gies generally accepted by the ap-  
22 plicable scientific disciplines;

23 “(cc) as practicable, give  
24 preference to performance stand-

ards instead of prescriptive measures; and

“(dd) reward continual improvements in the lifecycle management of health, safety, and environmental risks and impacts.

“(v) CONSIDERATIONS.—In determining the green building certification systems under this subparagraph, the Secretary shall take into consideration—

“(I) the ability and availability of assessors and auditors to independently verify the criteria and measurement of metrics at the scale necessary to implement this subparagraph;

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

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

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

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

4           “(bb) use of renewable en-  
5           ergy sources;

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

13          “(dd)(AA) the sourcing of  
14          grown, harvested, or mined mate-  
15          rials; and

16          “(BB) certifications of re-  
17          sponsible sourcing, such as cer-  
18          tifications provided by the Forest  
19          Stewardship Council, the Sus-  
20          tainable Forestry Initiative, the  
21          American Tree Farm System, or  
22          the Programme for the Endorse-  
23          ment of Forest Certification; and



1                   “(ee) such other criteria as  
2                   the Secretary determines to be  
3                   appropriate; and

4                   “(V) national recognition within  
5                   the building industry.

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

13                  “(I) the criteria described in  
14                  clause (v); and

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

20                  “(vii) EXCLUSIONS.—

21                  “(I) IN GENERAL.—Subject to  
22                  subclause (II), if a certification sys-  
23                  tem fails to meet the review require-  
24                  ments of clause (v), the Secretary  
25                  shall—

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

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

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

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

16               “(aa) impedes the integrated  
17               use of the system;

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

21               “(cc) increases agency costs  
22               of the use.

23          “(viii) INTERNAL CERTIFICATION  
24          PROCESSES.—The Secretary may by rule  
25          allow Federal agencies to develop internal

1 certification processes, using certified pro-  
2 fessionals, in lieu of certification by certifi-  
3 cation entities identified under clause (ii).

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

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

21 “(xi) EFFECTIVE DATE.—

22 “(I) DETERMINATIONS MADE  
23 AFTER DECEMBER 31, 2019.—The  
24 amendments made by section  
25 422(b)(1)(C) of the Energy Savings

1 and Industrial Competitiveness Act of  
 2 2019 shall apply to any determination  
 3 made by a Federal agency after De-  
 4 cember 31, 2019.

5 “(II) DETERMINATIONS MADE ON  
 6 OR BEFORE DECEMBER 31, 2019.—  
 7 This subparagraph (as in effect on the  
 8 day before the date of enactment of  
 9 the Energy Savings and Industrial  
 10 Competitiveness Act of 2019) shall  
 11 apply to any use of a certification sys-  
 12 tem for green commercial and residen-  
 13 tial buildings by a Federal agency on  
 14 or before December 31, 2019.”; and

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

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

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

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

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

3       (c) FEDERAL COMPLIANCE.—Section 306 of the En-  
4       ergy Conservation and Production Act (42 U.S.C. 6835)  
5       is amended—

6               (1) in subsection (a)—

7                       (A) in paragraph (1)—

8                               (i) by striking “(1) The head” and in-  
9                               serting the following:

10                               “(1) IN GENERAL.—The head”; and

11                               (ii) by striking “assure that new Fed-  
12                               eral buildings” and inserting “ensure that  
13                               new Federal buildings and Federal build-  
14                               ings with major renovations”; and

15                       (B) in paragraph (2)—

16                               (i) by striking the second sentence  
17                               and inserting the following:

18                               “(B) PROCEDURES.—The Architect of the  
19                               Capitol shall adopt procedures necessary to en-  
20                               sure that the buildings referred to in subpara-  
21                               graph (A) meet or exceed the standards de-  
22                               scribed in that subparagraph.”; and

23                               (ii) in the first sentence—

1 (I) by inserting “and Federal  
 2 buildings with major renovations”  
 3 after “new buildings”; and

4 (II) by striking “(2) The Fed-  
 5 eral” and inserting the following:

6 “(2) APPLICABILITY.—

7 “(A) IN GENERAL.—The Federal”; and

8 (2) in subsection (b)—

9 (A) by striking the subsection heading and  
 10 inserting “EXPENDITURES”; and

11 (B) by inserting “or a Federal building  
 12 with major renovations” after “new Federal  
 13 building”.

14 **SEC. 424. ENHANCED ENERGY EFFICIENCY UNDER-**  
 15 **WRITING.**

16 (a) DEFINITIONS.—In this section:

17 (1) COVERED AGENCY.—The term “covered  
 18 agency”—

19 (A) means—

20 (i) an executive agency, as that term  
 21 is defined in section 102 of title 31, United  
 22 States Code; and

23 (ii) any other agency of the Federal  
 24 Government; and

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

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

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

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

12 (A) an original lender under a covered loan  
13 or the holder of a covered loan at the time at  
14 which that mortgage transaction is con-  
15 summated;

16 (B) any affiliate, agent, subsidiary, suc-  
17 cessor, or assignee of an original lender under  
18 a covered loan or the holder of a covered loan  
19 at the time at which that mortgage transaction  
20 is consummated;

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

22 (D) any subsequent purchaser, trustee, or  
23 transferee of any covered loan issued by an  
24 original lender.

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

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

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

12   (b) FINDINGS AND PURPOSES.—

13       (1) FINDINGS.—Congress finds that—

14           (A) energy costs for homeowners are a sig-  
15           nificant and increasing portion of their house-  
16           hold budgets;

17           (B) household energy use can vary sub-  
18           stantially depending on the efficiency and char-  
19           acteristics of the house;

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

22           (D) the current test for loan affordability  
23           used by most covered agencies, commonly  
24           known as the “debt-to-income” test, is inad-  
25           equiate because it does not take into account the



1 expected energy cost savings for the homeowner  
2 of an energy efficient home; and

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

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

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

17 (B) require a covered agency to include the  
18 expected energy cost savings of a homeowner as  
19 a regular expense in the tests, such as the debt-  
20 to-income test, used to determine the ability of  
21 the loan applicant to afford the cost of home-  
22 ownership for all loan programs; and

23 (C) require a covered agency to include the  
24 value home buyers place on the energy effi-  
25 ciency of a house in tests used to compare the

1 mortgage amount to home value, taking pre-  
2 cautions to avoid double-counting and to sup-  
3 port safe and sound lending.

4 (c) ENHANCED ENERGY EFFICIENCY UNDER-  
5 WRITING CRITERIA.—

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

16 (2) REQUIREMENTS TO ACCOUNT FOR ENERGY  
17 COST SAVINGS.—

18 (A) IN GENERAL.—The enhanced loan eli-  
19 gibility requirements under paragraph (1) shall  
20 require that, for all covered loans for which an  
21 energy efficiency report is voluntarily provided  
22 to the mortgagee by the mortgagor, the covered  
23 agency and the mortgagee shall take into con-  
24 sideration the estimated energy cost savings ex-  
25 pected for the owner of the subject property in

determining whether the loan applicant has sufficient income to service the mortgage debt plus other regular expenses.

(B) EXPENSES AS OFFSETS.—To the extent that a covered agency uses a test such as a debt-to-income test that includes certain regular expenses, such as hazard insurance and property taxes, the expected energy cost savings shall be included as an offset to these expenses.

(C) ASSESSED ENERGY COSTS.—Energy costs to be assessed include the cost of electricity, natural gas, oil, and any other fuel regularly used to supply energy to the subject property.

(3) DETERMINATION OF ESTIMATED ENERGY COST SAVINGS.—

(A) IN GENERAL.—The guidelines to be issued under paragraph (1) shall include instructions for the covered agency to calculate estimated energy cost savings using—

- (i) the energy efficiency report;
- (ii) an estimate of baseline average energy costs; and
- (iii) additional sources of information 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, 2023,  
 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” at  
 16 the end;

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

19 (C) by inserting after paragraph (3) the  
 20 following:

21 “(4) that State certified and licensed appraisers  
 22 have timely access, whenever practicable, to informa-  
 23 tion from the property owner and the lender that  
 24 may be relevant in developing an opinion of value re-

1       garding the energy- and water-saving improvements  
2       or features of a property, such as—

3               “(A) labels or ratings of buildings;

4               “(B) installed appliances, measures, sys-  
5       tems or technologies;

6               “(C) blueprints;

7               “(D) construction costs;

8               “(E) financial or other incentives regard-  
9       ing energy- and water-efficient components and  
10       systems installed in a property;

11              “(F) utility bills;

12              “(G) energy consumption and benchmark-  
13       ing data; and

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

20       Unless a property owner consents to a lender, an ap-  
21       praiser, in carrying out the requirements of para-  
22       graph (4), shall not have access to the commercial  
23       or financial information of the owner that is privi-  
24       leged or confidential.”.

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

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

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

13          (6) PROTECTIONS.—

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

24                (B) ADDITIONAL AUTHORITY.—At the end  
 25                of the 7-year period following the implementa-

tion of enhanced eligibility and underwriting valuation requirements under this section, the Secretary may modify or apply additional exceptions to the approach described in paragraph (2), where the Secretary finds that the unadjusted appraisal will reflect an accurate market value of the efficiency of the subject property or that a modified approach will better reflect an accurate market value.

(7) APPLICABILITY AND IMPLEMENTATION

DATE.—Not later than 3 years after the date of enactment of this Act, and before December 31, 2023, each covered agency shall implement the guidelines required under this subsection, which shall—

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

(B) be available on any residential real property, including individual units of condominiums and cooperatives, that qualifies for a covered loan.

(e) MONITORING.—Not later than 1 year after the date on which the enhanced eligibility and underwriting valuation requirements are implemented under this section, and every year thereafter, each covered agency with

1 relevant activity shall issue and make available to the pub-  
2 lic a report that—

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

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

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

13          (f) RULEMAKING.—

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

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

5                   (A) mortgage lenders;

6                   (B) appraisers;

7                   (C) energy raters and residential energy  
 8           consumption experts;

9                   (D) energy efficiency organizations;

10                  (E) real estate agents;

11                  (F) home builders and remodelers;

12                  (G) State energy officials; and

13                  (H) others as determined by the Secretary.

14           (g) ADDITIONAL STUDY.—

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

23           (2) RECOMMENDATIONS.—

24                   (A) IN GENERAL.—The advisory group es-  
 25           tablished in subsection (f)(2) shall provide rec-



ommendations to the Secretary on any revisions or additions to the enhanced energy efficiency underwriting criteria deemed necessary by the group, which may include alternate methods to better account for home energy costs and additional factors to account for substantial and regular costs of homeownership such as location-based transportation costs and water costs.

(B) LEGISLATIVE RECOMMENDATIONS.—

The Secretary shall forward any legislative recommendations from the advisory group to Congress for consideration.

## **TITLE V—MISCELLANEOUS**

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

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

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

The authorization of amounts under this Act and the amendments made by this Act shall be effective for any

- 1 fiscal year only to the extent and in the amount provided
- 2 in advance in appropriations Acts.

