

116TH CONGRESS
1ST SESSION

S. 2137

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

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

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,

1 respectively, has reviewed and updated the en-
 2 ergy provisions of the building code of the State
 3 or Indian tribe, respectively, to meet or exceed
 4 the target in section 307(b)(2).

5 “(2) 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 code provi-
 9 sions of the State or Indian tribe, respectively,
 10 meet the criteria specified in paragraph (1);
 11 and

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

14 “(d) IMPROVEMENTS IN COMPLIANCE WITH BUILD-
 15 ING ENERGY CODES.—

16 “(1) REQUIREMENT.—

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

22 “(i) achieved full compliance under
 23 paragraph (3) with the applicable certified
 24 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

with supporting evidence, taking into consideration—

“(i) whether the modified code is technically feasible and lifecycle cost effective;

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

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

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

“(i) determine whether—

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

“(II) to reject the proposed changes; or

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

“(C) FINAL DETERMINATION BY SECRETARY.—

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,”.

1 **Subtitle B—Extended Product**
2 **System Rebate Program**

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

4 (a) DEFINITIONS.—In this section:

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

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

11 (A) a power converter; or

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

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

18 (A) offers variable speed or multispeed op-
19 eration;

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

24 (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”;

1 (B) by striking subparagraph (A) and in-
2 serting the following:

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

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

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

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

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

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

19 “(G) a finding that, for all credits address-
20 ing the sourcing of grown, harvested, or mined
21 materials, the system rewards the use of prod-
22 ucts that have obtained certifications of respon-
23 sible sourcing, such as certifications provided by
24 the Sustainable Forestry Initiative, the Forest
25 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:

“Fiscal Year	Percentage Reduction
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)”; and

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.

(B) IMPOSITION OF CERTAIN MATERIAL COSTS, IMPEDIMENTS, OR PENALTIES.—In the absence of a publicly disclosed analysis that demonstrates significant additional default risk or prepayment risk associated with the loans, a covered agency shall not impose material costs, impediments, or penalties on covered loans merely because the loan uses an energy efficiency report or the enhanced loan eligibility requirements required under this section.

(7) LIMITATIONS.—

(A) IN GENERAL.—A covered agency may price covered loans originated under the enhanced loan eligibility requirements required under this section in accordance with the estimated risk of those loans.

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

(i) modify existing underwriting criteria or adopt new underwriting criteria that intentionally negate or reduce the impact of the requirements or resulting benefits that are set forth or otherwise derived from the enhanced loan eligibility requirements required under this subsection; or

(ii) impose greater buy back requirements, credit overlays, or insurance requirements, including private mortgage insurance, on covered loans merely because the loan uses an energy efficiency report or the enhanced loan eligibility requirements required under this subsection.

(8) APPLICABILITY AND IMPLEMENTATION DATE.—Not later than 3 years after the date of enactment of this Act, and before December 31, 2023, the enhanced loan eligibility requirements required under this subsection shall be implemented by each covered agency to—

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

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

(C) provide prospective mortgagees with sufficient guidance and applicable tools to implement the required underwriting methods.

(d) ENHANCED ENERGY EFFICIENCY UNDERWRITING 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.

