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

IN THE SENATE OF THE UNITED STATES

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

A BILL

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

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

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) Short Title.—This Act may be cited as the “Energy Savings and Industrial Competitiveness Act of 2019”.

(b) Table of Contents.—The table of contents of 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. 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


Subtitle C—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.
SEC. 2. DEFINITION OF SECRETARY.

In this Act, the term “Secretary” means the Secretary of Energy.

TITLE I—BUILDINGS
Subtitle A—Building Energy Codes
SEC. 101. GREATER ENERGY EFFICIENCY IN BUILDING CODES.

(a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended—

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

“(14) MODEL BUILDING ENERGY CODE.—The term ‘model building energy code’ means a voluntary building energy code or standard developed and updated by interested persons, such as the code or standard developed by—

“(A) the Council of American Building Officials, or its legal successor, International Code Council, Inc.;

“(B) the American Society of Heating, Refrigerating, and Air-Conditioning Engineers; or

“(C) other appropriate organizations.”;

and

(2) by adding at the end the following:
“(17) IECC.—The term ‘IECC’ means the International Energy Conservation Code.

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

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

“SEC. 304. UPDATING STATE BUILDING ENERGY EFFICIENCY CODES.

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

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

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

“(2) support full compliance with the State and local codes.
“(c) State and Indian Tribe Certification of Building Energy Code Updates.—

“(1) Review and Updating of Codes by Each State and Indian Tribe.—

“(A) In General.—Not later than 2 years after the date of publication of a revision to a model building energy code, each State or Indian tribe shall certify whether the State or Indian tribe, respectively, has reviewed and updated the energy provisions of the building code of the State or Indian tribe, respectively.

“(B) Demonstration.—The certification shall include a demonstration of whether the energy savings for the code provisions that are in effect throughout the territory of the State or Indian tribe meet or exceed the energy savings of the updated model building energy code.

“(C) No Model Building Energy Code Update.—If a model building energy code is not updated by a target date established under section 307(b)(2)(E), each State or Indian tribe shall, not later than 2 years after the specified date, certify whether the State or Indian tribe, respectively, has reviewed and updated the energy provisions of the building code of the State
or Indian tribe, respectively, to meet or exceed
the target in section 307(b)(2).

“(2) Validation by Secretary.—Not later
than 90 days after a State or Indian tribe certifi-
cation under paragraph (1), the Secretary shall—

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

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

“(d) Improvements in Compliance With Building Energy Codes.—

“(1) Requirement.—

“(A) In general.—Not later than 3 years
after the date of a certification under sub-
section (c), each State and Indian tribe shall
certify whether the State and Indian tribe, re-
spectively, has—

“(i) achieved full compliance under
paragraph (3) with the applicable certified
State and Indian tribe building energy
code or with the associated model building
energy code; or
“(ii) made significant progress under paragraph (4) toward achieving compliance with the applicable certified State and Indian tribe building energy code or with the associated model building energy code.

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

“(2) MEASUREMENT OF COMPLIANCE.—A certification under paragraph (1) shall include documentation of the rate of compliance based on—

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

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

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

“(A) at least 90 percent of building space covered by the code in the preceding year substantially meets all the requirements of the ap-
applicable code specified in paragraph (1), or achieves equivalent or greater energy savings level; or

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

“(4) S I G N I F I C A N T P R O G R E S S T O W A R D ACHIEVEMENT OF COMPLIANCE.—A State or Indian tribe shall be considered to have made significant progress toward achieving compliance for purposes of paragraph (1) if the State or Indian tribe—

“(A) has developed and is implementing a plan for achieving compliance during the 8-year-period beginning on the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2019, including annual targets for compliance and active training and enforcement programs; and

“(B) has met the most recent target under subparagraph (A).
“(5) Validation by Secretary.—Not later than 90 days after a State or Indian tribe certification under paragraph (1), the Secretary shall—

“(A) determine whether the State or Indian tribe has demonstrated meeting the criteria of this subsection, including accurate measurement of compliance; and

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

“(e) States or Indian Tribes That Do Not Achieve Compliance.—

“(1) Reporting.—A State or Indian tribe that has not made a certification required under subsection (c) or (d) by the applicable deadline shall submit to the Secretary a report describing—

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

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

“(2) Federal Support.—For any State or Indian tribe for which the Secretary has not validated a certification by a deadline under subsection (c) or (d), the lack of the certification may be a consider-
ation for Federal support authorized under this section for code adoption and compliance activities.

“(3) LOCAL GOVERNMENT.—In any State or Indian tribe for which the Secretary has not validated a certification under subsection (c) or (d), a local government may be eligible for Federal support under subsections (f) and (g) by meeting the certification requirements of subsections (e) and (d).

“(4) REPORTS BY SECRETARY.—

“(A) IN GENERAL.—Not later than December 31, 2020, and not less frequently than once every 3 years thereafter, the Secretary shall submit to Congress and publish a report describing—

“(i) the status of model building energy codes;

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

“(iii) implementation of this section; and

“(iv) improvements in energy savings over time as result of the targets established under section 307(b)(2).

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

on—

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

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

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

“(f) Technical Assistance to States and In-
dian Tribes.—The Secretary shall provide technical as-
sistance to States and Indian tribes to implement the goals
and requirements of this section, including procedures and
technical analysis for States and Indian tribes—

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

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

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

“(4) to otherwise promote the design and con-
struction of energy- and water-efficient buildings.
“(g) AVAILABILITY OF INCENTIVE FUNDING.—

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

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

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

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

“(2) ADDITIONAL FUNDING.—Additional funding shall be provided under this subsection for implementation of a plan to achieve and document full compliance with residential and commercial building energy codes under subsection (d)—

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

“(B) in a State or Indian tribe that is not eligible under subparagraph (A), to a local government that is eligible under this section.
“(3) TRAINING.—Of the amounts made available under this subsection, the State or Indian tribe may use amounts required, but not to exceed $750,000 for a State, to train State and local building code officials to implement and enforce codes described in paragraph (2).

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

“(h) STRETCH CODES AND ADVANCED STANDARDS.—

“(1) IN GENERAL.—The Secretary shall provide technical and financial support for the development of stretch codes and advanced standards for residential and commercial buildings for use as—

“(A) an option for adoption as a building energy code by local, tribal, or State governments; and

“(B) guidelines for energy-efficient building design.

“(2) TARGETS.—The stretch codes and advanced standards shall be designed—

“(A) to achieve substantial energy savings compared to the model building energy codes; and
“(B) to meet targets under section 307(b), if available, at least 3 to 6 years in advance of the target years.

“(i) STUDIES.—The Secretary, in consultation with building science experts from the National Laboratories and institutions of higher education, designers and builders of energy-efficient residential and commercial buildings, code officials, code and standards developers, and other stakeholders, shall undertake a study of the feasibility, impact, economics, and merit of—

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

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

“(3) legislative options for increasing energy savings from building energy codes and standards, including additional incentives for effective State and local action, and verification of compliance with and enforcement of a code or standard other than by a State or local government; and
“(4) code and standards improvements that consider energy efficiency and water efficiency and, to the maximum extent practicable, consider energy efficiency and water efficiency in an integrated manner.

“(j) Effect on Other Laws.—Nothing in this section or section 307 supersedes or modifies the application of sections 321 through 346 of the Energy Policy and Conservation Act (42 U.S.C. 6291 et seq.).

“(k) Authorization of Appropriations.—There is authorized to be appropriated to carry out this section and section 307 $200,000,000, to remain available until expended.”.

(e) Federal Building Energy Efficiency Standards.—Section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834) is amended by striking “voluntary building energy code” each place it appears in subsections (a)(2)(B) and (b) and inserting “model building energy code”.

(d) Model Building Energy Codes.—Section 307 of the Energy Conservation and Production Act (42 U.S.C. 6836) is amended to read as follows:
“SEC. 307. SUPPORT FOR MODEL BUILDING ENERGY CODES.

“(a) In General.—The Secretary shall support the updating of model building energy codes.

“(b) Targets.—

“(1) In General.—The Secretary shall support the updating of the model building energy codes to enable the achievement of aggregate energy savings targets established under paragraph (2).

“(2) Targets.—

“(A) In General.—The Secretary shall work with State, Indian tribes, local governments, code and standards developers (such as the entities described in section 303(14)), and other interested parties to support the updating of model building energy codes by establishing 1 or more national aggregate energy savings targets to achieve the purposes of this section.

“(B) Separate Targets.—The Secretary shall establish separate targets for commercial and residential buildings.

“(C) Baselines.—The baseline for updating model building energy codes shall be the 2009 IECC for residential buildings and ASHRAE Standard 90.1–2010 for commercial buildings.
“(D) Code cycles.—The targets established under subparagraph (A) shall align with the respective code development cycles determined by the model building energy code-setting and standards development organizations described in section 303(14).

“(E) Specific years.—

“(i) In general.—Targets for specific years shall be established and revised by the Secretary through rulemaking and coordinated with code and standards developers (such as the entities described in section 303(14)) at a level that—

“(I) is at the maximum level of energy efficiency that is technologically feasible and lifecycle cost effective, while accounting for the economic considerations under paragraph (4);

“(II) is higher than the preceding target;

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

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

“(ii) Initial targets.—Not later than 1 year after the date of enactment of this clause, the Secretary shall establish initial targets under this subparagraph.

“(iii) Different target years.—Subject to clause (i), prior to the applicable year, the Secretary may set a later target year for any of the model building energy codes described in subparagraph (A) if the Secretary determines that a target cannot be met.

“(iv) Small business.—When establishing targets under this paragraph through rulemaking, the Secretary shall ensure compliance with the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 601 note; Public Law 104–121).
“(3) APPLIANCE STANDARDS AND OTHER FACTORS AFFECTING BUILDING ENERGY USE.—In establishing building code targets under paragraph (2), the Secretary shall develop and adjust the targets in recognition of potential savings and costs relating to—

“(A) efficiency gains made in appliances, lighting, windows, insulation, and building envelope sealing;

“(B) advancement of distributed generation and on-site renewable power generation technologies;

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

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

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

“(4) ECONOMIC CONSIDERATIONS.—In establishing and revising building code targets under paragraph (2), the Secretary shall consider the economic feasibility of achieving the proposed targets established under this section and the potential costs
and savings for consumers and building owners, including a return on investment analysis.

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

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

“(2) ASSISTANCE.—The assistance shall include, as requested by the organizations, technical assistance in—

“(A) evaluating code or standards proposals or revisions;

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

“(C) building demonstrations;

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

“(E) performance-based standards;

“(F) evaluating economic considerations under subsection (b)(4); and
“(G) developing model building energy codes by Indian tribes in accordance with tribal law.

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

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

“(d) DETERMINATION.—

“(1) REVISION OF MODEL BUILDING ENERGY 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.—

“(i) In general.—A final determination by the Secretary shall be made on the model building energy code or standard, as modified by the changes proposed by the Secretary under subparagraph (A).

“(ii) Additional determinations.—If a model building energy code or standards developer makes an election pur-
suant to subparagraph (B)(ii), the Secretary shall make the following final determinations for purposes of this subsection:

“(I) A final determination regarding whether the code or standard of the developer, absent any changes proposed by the Secretary under subparagraph (A), will—

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

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

“(II) A final determination regarding whether the code or standard of the developer, as modified by the changes proposed by the Secretary under subparagraph (A), would—

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

“(bb) meet the applicable targets under subsection (b)(2).
“(e) ADMINISTRATION.—In carrying out this section, the Secretary shall—

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

“(2) provide an opportunity for public comment on targets and supporting analysis and determinations under this section.”.

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

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

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

“(a) DEFINITIONS.—In this section:

“(1) ELIGIBLE ENTITY.—The term ‘eligible entity’ means—

“(A) a relevant State agency, as determined by the Secretary, such as a State building code agency or State energy office; and

“(B) a partnership.
“(2) PARTNERSHIP.—The term ‘partnership’ means a partnership between an eligible entity described in paragraph (1)(A) and 1 or more of the following entities:

“(A) Local building code agencies.

“(B) Codes and standards developers.

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

“(D) Local and utility energy efficiency programs.

“(E) Consumer, energy efficiency, and environmental advocates.

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

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

“(b) ESTABLISHMENT.—

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

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

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

“(1) consider—

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

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

“(C) prospective benefits, and plans to assess the benefits, including benefits relating to—

“(i) resilience and peak load reduction;

“(ii) occupant safety and health; and

“(iii) environmental performance;

“(D) the demonstrated capacity of the eligible entity to carry out the proposed project; and

“(E) the need of the eligible entity for assistance; and

“(2) give priority to applications from partnerships.

“(d) ELIGIBLE ACTIVITIES.—
“(1) IN GENERAL.—An eligible entity awarded a grant under this section may use the grant funds—

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

“(i) builders, contractors and subcontractors, architects, and other design and construction professionals, relating to meeting updated building energy codes in a cost-effective manner; and

“(ii) building code officials, relating to improving implementation of and compliance with building energy codes;

“(B) to collect and disseminate quantitative data on construction and codes implementation, including code pathways, performance metrics, and technologies used;

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

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

“(E) to implement updates in energy codes for—
“(i) new residential and commercial buildings (including multifamily buildings); and

“(ii) additions and alterations to existing residential and commercial buildings (including multifamily buildings).

“(2) RELATED TOPICS.—Training and materials provided using a grant under this section may include information on the relationship between energy codes and—

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

“(B) improving resilience, health, and safety;

“(C) water savings and other environmental impacts; and

“(D) the economic impacts of energy codes.

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

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

“(2) for fiscal year 2030 and each fiscal year thereafter, such sums as are necessary.”.
(b) CONFORMING AMENDMENT.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended, in the matter preceding paragraph (1), by striking “As used in” and inserting “Except as otherwise provided, in”.

SEC. 103. COMMERCIAL BUILDING ENERGY CONSUMPTION INFORMATION SHARING.

(a) IN GENERAL.—Not later than 120 days after the date of enactment of this Act, the Administrator of the Energy Information Administration (referred to in this section as the “Administrator”) and the Administrator of the Environmental Protection Agency shall sign, and submit to Congress, an information sharing agreement (referred to in this section as the “agreement”) relating to commercial building energy consumption data.

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

(1) provide that the Administrator shall have access to building-specific data in the Portfolio Manager database of the Environmental Protection Agency;

(2) describe the manner in which the Administrator shall incorporate appropriate data (including the data described in subsection (c)) into any Commercial Buildings Energy Consumption Survey (re-
ferred to in this section as “CBECS”) published after the date of enactment of this Act for the purpose of analyzing and estimating building population, size, location, activity, energy usage, and any other relevant building characteristic; and

(3) describe and compare—

(A) the methodologies that the Energy Information Administration, the Environmental Protection Agency, and State and local government managers use to maximize the quality, reliability, and integrity of data collected through CBECS, the Portfolio Manager database of the Environmental Protection Agency, and State and local building energy disclosure laws (including regulations), respectively, and the manner in which those methodologies can be improved; and

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

(e) DATA.—The data referred in subsection (b)(2) includes data that—
(1) is collected through the Portfolio Manager database of the Environmental Protection Agency;

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

(3) includes information on private sector buildings that are not less than 250,000 square feet.

(d) PROTECTION OF INFORMATION.—In carrying out the agreement, the Administrator and the Administrator of the Environmental Protection Agency shall protect information in accordance with—

(1) section 552(b)(4) of title 5, United States Code (commonly known as the ‘Freedom of Information Act’);

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

(3) any other applicable law (including regulations).

Subtitle B—Worker Training and Capacity Building

SEC. 111. BUILDING TRAINING AND ASSESSMENT CENTERS.

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

(1) to identify opportunities for optimizing energy efficiency and environmental performance in buildings;

(2) to promote the application of emerging concepts and technologies in commercial and institutional buildings;

(3) to train engineers, architects, building scientists, building energy permitting and enforcement officials, and building technicians in energy-efficient design and operation;

(4) to assist institutions of higher education and Tribal Colleges or Universities in training building technicians;

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

(6) to coordinate with and assist State-accredited technical training centers, community colleges, Tribal Colleges or Universities, and local offices of the National Institute of Food and Agriculture and ensure appropriate services are provided under this section to each region of the United States.
(b) Coordination and Nonduplication.—

(1) In general.—The Secretary shall coordinate the program with the industrial research and assessment centers program and with other Federal programs to avoid duplication of effort.

(2) Collocation.—To the maximum extent practicable, building, training, and assessment centers established under this section shall be collocated with Industrial Assessment Centers.

(c) Authorization of Appropriations.—There is authorized to be appropriated to carry out this section $10,000,000, to remain available until expended.

Sec. 112. Career Skills Training.

(a) Definition of Eligible Entity.—In this section, the term “eligible entity” means a nonprofit partnership that—

(1) includes the equal participation of industry, including public or private employers, and labor organizations, including joint labor-management training programs;

(2) may include workforce investment boards, community-based organizations, qualified service and conservation corps, educational institutions, small businesses, cooperatives, State and local veterans agencies, and veterans service organizations; and
(3) demonstrates—

(A) experience in implementing and operating worker skills training and education programs;

(B) the ability to identify and involve in training programs carried out under this section, target populations of individuals who would benefit from training and be actively involved in activities relating to energy efficiency and renewable energy industries; and

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

(b) Establishment.—The Secretary shall award grants to eligible entities to pay the Federal share of associated career skills training programs under which students concurrently receive classroom instruction and on-the-job training for the purpose of obtaining an industry-related certification to install energy efficient buildings technologies, including technologies described in subsection (b)(3) of section 307 of the Energy Conservation and Production Act (42 U.S.C. 6836).

(c) Federal Share.—The Federal share of the cost of carrying out a career skills training program described in subsection (a) shall be 50 percent.
(d) **Authorization of Appropriations.**—There is authorized to be appropriated to carry out this section $10,000,000, to remain available until expended.

**Subtitle C—School Buildings**

**SEC. 121. COORDINATION OF ENERGY RETROFITTING ASSISTANCE FOR SCHOOLS.**

(a) **Definition of School.**—In this section, the term “school” means—

1. an elementary school or secondary school (as defined in section 8101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801));
2. an institution of higher education (as defined in section 102(a) of the Higher Education Act of 1965 (20 U.S.C. 1002(a)));
3. a school of the defense dependents’ education system under the Defense Dependents’ Education Act of 1978 (20 U.S.C. 921 et seq.) or established under section 2164 of title 10, United States Code;
4. a school operated by the Bureau of Indian Affairs;
5. a tribally controlled school (as defined in section 5212 of the Tribally Controlled Schools Act of 1988 (25 U.S.C. 2511)); and
(6) a Tribal College or University (as defined in section 316(b) of the Higher Education Act of 1965 (20 U.S.C. 1059e(b))).

(b) Designation of Lead Agency.—The Secretary, acting through the Office of Energy Efficiency and Renewable Energy, shall act as the lead Federal agency for coordinating and disseminating information on existing Federal programs and assistance that may be used to help initiate, develop, and finance energy efficiency, renewable energy, and energy retrofitting projects for schools.

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

(1) in consultation and coordination with the appropriate Federal agencies, carry out a review of existing programs and financing mechanisms (including revolving loan funds and loan guarantees) available in or from the Department of Agriculture, the Department of Energy, the Department of Education, the Department of the Treasury, the Internal Revenue Service, the Environmental Protection Agency, and other appropriate Federal agencies with jurisdiction over energy financing and facilitation that are currently used or may be used to help initiate, develop, and finance energy efficiency, renew-
able energy, and energy retrofitting projects for schools;

(2) establish a Federal cross-departmental collaborative coordination, education, and outreach effort to streamline communication and promote available Federal opportunities and assistance described in paragraph (1), for energy efficiency, renewable energy, and energy retrofitting projects that enables States, local educational agencies, and schools—

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

(B) to form partnerships with Governors, State energy programs, local educational, financial, and energy officials, State and local government officials, nonprofit organizations, and other appropriate entities, to support the initiation of the projects;

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

(A) to increase the energy efficiency of buildings or facilities;
(B) to install systems that individually generate energy from renewable energy resources;

(C) to establish partnerships to leverage economies of scale and additional financing mechanisms available to larger clean energy initiatives; or

(D) to promote—

(i) the maintenance of health, environmental quality, and safety in schools, including the ambient air quality, through energy efficiency, renewable energy, and energy retrofit projects; and

(ii) the achievement of expected energy savings and renewable energy production through proper operations and maintenance practices;

(4) develop and maintain a single online resource website with contact information for relevant technical assistance and support staff in the Office of Energy Efficiency and Renewable Energy for States, local educational agencies, and schools to effectively access and use Federal opportunities and assistance described in paragraph (1) to develop en-
ergy efficiency, renewable energy, and energy retrofitting projects; and

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

(A) have successfully implemented energy efficiency, renewable energy, and energy retrofitting projects; and

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

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

TITLE II—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

Subtitle A—Manufacturing Energy Efficiency

SEC. 201. PURPOSES.

The purposes of this subtitle are—

(1) to establish a clear and consistent authority for industrial efficiency programs of the Department of Energy;
(2) to accelerate the deployment of technologies
and practices that will increase industrial energy ef-
ficiency and improve productivity;

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

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

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

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

SEC. 202. FUTURE OF INDUSTRY PROGRAM AND INDUS-
TRIAL RESEARCH AND ASSESSMENT CEN-
TERS.

(a) Future of Industry Program.—Section 452
of the Energy Independence and Security Act of 2007 (42
U.S.C. 17111) is amended—

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

(2) in subsection (a)(2)—
(A) by redesignating subparagraph (E) as subparagraph (F); and

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

“(E) water and wastewater treatment facilities, including systems that treat municipal, industrial, and agricultural waste; and”;

(3) by striking subsection (e); and

(4) by redesigning subsection (f) as subsection (e).

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

“SEC. 454. INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.

“(a) DEFINITIONS.—In this section:

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

“(A) any business providing technology or services to improve the energy efficiency, water efficiency, power factor, or load management of a manufacturing site or other industrial process in an energy-intensive industry (as defined in section 452(a)); and
“(B) any utility operating under a utility energy service project.

“(2) Industrial Research and Assessment Center.—The term ‘industrial research and assessment center’ means—

“(A) an institution of higher education-based industrial research and assessment center that is funded by the Secretary under subsection (b); and

“(B) an industrial research and assessment center at a trade school, community college, or union training program that is funded by the Secretary under subsection (f).

“(b) Institution of Higher Education-Based Industrial Research and Assessment Centers.—

“(1) In General.—The Secretary shall provide funding to institution of higher education-based industrial research and assessment centers.

“(2) Purpose.—The purpose of each institution of higher education-based industrial research and assessment center shall be—

“(A) to identify opportunities for optimizing energy efficiency and environmental performance, including implementation of—

“(i) smart manufacturing;
“(ii) energy management systems;

“(iii) sustainable manufacturing; and

“(iv) information technology advancements for supply chain analysis, logistics, system monitoring, industrial and manufacturing processes, and other purposes;

“(B) to promote applications of emerging concepts and technologies in small- and medium-sized manufacturers (including water and wastewater treatment facilities and federally owned manufacturing facilities);

“(C) to promote research and development for the use of alternative energy sources to supply heat, power, and new feedstocks for energy-intensive industries;

“(D) to coordinate with appropriate Federal and State research offices;

“(E) to provide a clearinghouse for industrial process and energy efficiency technical assistance resources; and

“(F) to coordinate with State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States.
“(c) COORDINATION.—To increase the value and capabilities of the industrial research and assessment centers, the centers shall—

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

“(2) coordinate with the Federal Energy Management Program and the Building Technologies Program of the Department of Energy to provide building assessment services to manufacturers;

“(3) increase partnerships with the National Laboratories of the Department of Energy to leverage the expertise, technologies, and research and development capabilities of the National Laboratories for national industrial and manufacturing needs;

“(4) increase partnerships with energy service providers and technology providers to leverage private sector expertise and accelerate deployment of new and existing technologies and processes for energy efficiency, power factor, and load management;

“(5) identify opportunities for reducing greenhouse gas emissions and other air emissions; and

“(6) promote sustainable manufacturing practices for small- and medium-sized manufacturers.
“(d) OUTREACH.—The Secretary shall provide funding for—

“(1) outreach activities by the industrial research and assessment centers to inform small- and medium-sized manufacturers of the information, technologies, and services available; and

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

“(A) Federal and State efforts;

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

“(C) the efforts of regional energy efficiency organizations; and

“(D) the efforts of other industrial research and assessment centers.

“(e) CENTERS OF EXCELLENCE.—

“(1) ESTABLISHMENT.—The Secretary shall establish a Center of Excellence at not more than 5 of the highest-performing industrial research and assessment centers, as determined by the Secretary.

“(2) DUTIES.—A Center of Excellence shall coordinate with and advise the industrial research and assessment centers located in the region of the Center of Excellence, including—
“(A) by mentoring new directors and staff of the industrial research and assessment centers with respect to—

“(i) the availability of resources; and

“(ii) best practices for carrying out assessments, including through the participation of the staff of the Center of Excellence in assessments carried out by new industrial research and assessment centers;

“(B) by providing training to staff and students at the industrial research and assessment centers on new technologies, practices, and tools to expand the scope and impact of the assessments carried out by the centers;

“(C) by assisting the industrial research and assessment centers with specialized technical opportunities, including by providing a clearinghouse of available expertise and tools to assist the centers and clients of the centers in assessing and implementing those opportunities;

“(D) by identifying and coordinating with regional, State, local, and utility energy efficiency programs for the purpose of facilitating efforts by industrial research and assessment centers to connect industrial facilities receiving
assessments from those centers with regional, State, local, and utility energy efficiency programs that could aid the industrial facilities in implementing any recommendations resulting from the assessments;

“(E) by facilitating coordination between the industrial research and assessment centers and other Federal programs described in paragraphs (1) through (3) of subsection (c); and

“(F) by coordinating the outreach activities of the industrial research and assessment centers under subsection (d)(1).

“(3) FUNDING.—Subject to the availability of appropriations, for each fiscal year, out of any amounts made available to carry out this section under subsection (i), the Secretary shall use not less than $500,000 to support each Center of Excellence.

“(f) EXPANSION OF INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—

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

“(2) PURPOSE.—
“(A) IN GENERAL.—Subject to subparagraph (B), to the maximum extent practicable, an industrial research and assessment center established under paragraph (1) shall have the same purpose as an institution of higher education-based industrial research center that is funded by the Secretary under subsection (b)(1).

“(B) CONSIDERATION OF CAPABILITIES.— In evaluating or establishing the purpose of an industrial research and assessment center established under paragraph (1), the Secretary shall take into consideration the varying capabilities of trade schools, community colleges, and union training programs.

“(g) WORKFORCE TRAINING.—

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

“(2) APPRENTICESHIPS.—The Secretary shall pay the Federal share of associated apprenticeship programs under which—
“(A) students work with or for industries, manufacturers, and energy service providers to implement the recommendations of industrial research and assessment centers; and

“(B) employees of facilities that have received an assessment from an industrial research and assessment center work with or for an industrial research and assessment center to gain knowledge on engineering practices and processes to improve productivity and energy savings.

“(3) **Federal Share.**—The Federal share of the cost of carrying out internship programs described in paragraph (1) and apprenticeship programs described in paragraph (2) shall be 50 percent.

“(h) **Small Business Loans.**—The Administrator of the Small Business Administration shall, to the maximum extent practicable, expedite consideration of applications from eligible small business concerns for loans under the Small Business Act (15 U.S.C. 631 et seq.) to implement recommendations developed by the industrial research and assessment centers.

“(i) **Funding.**—There is authorized to be appropriated to the Secretary to carry out this section
$30,000,000 for each fiscal year, to remain available until expended.”.

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

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

SEC. 203. SUSTAINABLE MANUFACTURING INITIATIVE.

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

“SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.

“(a) IN GENERAL.—As part of the Office of Energy Efficiency and Renewable Energy of the Department of Energy, the Secretary, on the request of a manufacturer, shall carry out onsite technical assessments to identify opportunities for—

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

“(2) preventing pollution and minimizing waste;

“(3) improving efficient use of water in manufacturing processes;

“(4) conserving natural resources; and

“(5) achieving such other goals as the Secretary determines to be appropriate.
“(b) COORDINATION.—To implement any recommendations resulting from an onsite technical assessment carried out under subsection (a) and to accelerate the adoption of new and existing technologies and processes that improve energy efficiency, the Secretary shall coordinate with—

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

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

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

“(4) the private sector and other appropriate agencies, including the National Institute of Standards and Technology.

“(c) RESEARCH AND DEVELOPMENT PROGRAM FOR SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECHNOLOGIES AND PROCESSES.—As part of the industrial efficiency programs of the Department of Energy, the Secretary shall carry out a joint industry-government partnership program to research, develop, and demonstrate new sustainable manufacturing and industrial technologies and processes that maximize the energy efficiency of industrial plants, reduce pollution, and conserve natural resources.”.
(b) CLERICAL AMENDMENT.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prc. 6201) is amended by adding at the end of the items relating to part E of title III the following:

“Sec. 376. Sustainable manufacturing initiative.”.

SEC. 204. CONFORMING AMENDMENTS.

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


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

Subtitle B—Extended Product System Rebate Program

SEC. 211. EXTENDED PRODUCT SYSTEM REBATE PROGRAM.

(a) DEFINITIONS.—In this section:

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

(A) a power converter; or

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

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

(A) offers variable speed or multispeed operation;

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

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

(ii) uses an extended product system technology, as determined by the Secretary.

(4) Qualified extended product system.—

(A) In general.—The term “qualified extended product system” means an extended product system that—

(i) includes an electric motor and an electronic control; and
(ii) reduces the input energy (as measured in kilowatt-hours) required to operate the extended product system by not less than 5 percent, as compared to identified base levels set by the Secretary.

(B) INCLUSIONS.—The term “qualified extended product system” includes commercial or industrial machinery or equipment that—

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

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

(ii) was previously used prior to, and was placed back into service during, calendar year 2020 or 2021.

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

(c) QUALIFIED ENTITIES.—
(1) Eligibility Requirements.—A qualified entity under this section shall be—

(A) in the case of a qualified extended product system described in subsection (a)(4)(A), the purchaser of the qualified extended product that is installed; and

(B) in the case of a qualified extended product system described in subsection (a)(4)(B), the manufacturer of the commercial or industrial machinery or equipment that incorporated the extended product system into that machinery or equipment.

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

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

(B) a certification that includes demonstrated evidence—

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

(ii)(I) in the case of a qualified entity described in paragraph (1)(A)—
(aa) that the qualified entity installed the qualified extended product system during the 2 fiscal years following the date of enactment of this Act;

(bb) that the qualified extended product system meets the requirements of subsection (a)(4)(A); and

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

(II) in the case of a qualified entity described in paragraph (1)(B), demonstrated evidence—

(aa) that the qualified extended product system meets the requirements of subsection (a)(4)(B); and

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

(d) Authorized Amount of Rebate.—

(1) In general.—The Secretary may provide to a qualified entity a rebate in an amount equal to the product obtained by multiplying—

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

(i) the electric motor to which the qualified extended product system is attached; and

(ii) the electronic control; and

(B) $25.

(2) Maximum Aggregate Amount.—A qualified entity shall not be entitled to aggregate rebates under this section in excess of $25,000 per calendar year.

(e) Authorization of Appropriations.—There is authorized to be appropriated to carry out this section $5,000,000 for each of the first 2 full fiscal years following the date of enactment of this Act, to remain available until expended.
Subtitle C—Transformer Rebate Program

SEC. 221. ENERGY EFFICIENT TRANSFORMER REbate PRO-GRAM.

(a) DEFINITIONS.—In this section:

(1) QUALIFIED ENERGY EFFICIENT TRANSFORMER.—The term “qualified energy efficient transformer” means a transformer that meets or exceeds the applicable energy conservation standards described in the tables in subsection (b)(2) and paragraphs (1) and (2) of subsection (c) of section 431.196 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act).

(2) QUALIFIED ENERGY INEFFICIENT TRANSFORMER.—The term “qualified energy inefficient transformer” means a transformer with an equal number of phases and capacity to a transformer described in any of the tables in subsection (b)(2) and paragraphs (1) and (2) of subsection (c) of section 431.196 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act) that—

(A) does not meet or exceed the applicable energy conservation standards described in paragraph (1); and
(B)(i) was manufactured between January 1, 1987, and December 31, 2008, for a transformer with an equal number of phases and capacity as a transformer described in the table in subsection (b)(2) of section 431.196 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act); or

(ii) was manufactured between January 1, 1992, and December 31, 2011, for a transformer with an equal number of phases and capacity as a transformer described in the table in paragraph (1) or (2) of subsection (c) of that section (as in effect on the date of enactment of this Act).

(3) QUALIFIED ENTITY.—The term “qualified entity” means an owner of industrial or manufacturing facilities, commercial buildings, or multifamily residential buildings, a utility, or an energy service company that fulfills the requirements of subsection (d).

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

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

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

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

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

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

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

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

(5) that the qualified energy inefficient trans-
former has been permanently decommissioned and
scraped.
(d) Authorized Amount of Rebate.—The amount of a rebate provided under this section shall be—

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

(A) the qualified energy inefficient transformer; and

(B) the qualified energy efficient transformer; or

(2) for a transformer described in subsection (a)(2)(B)(i), the amount determined using a table of default rebate values by rated transformer output, as measured in kilovolt-amperes, as determined by the Secretary in consultation with applicable industry.

(e) Authorization of Appropriations.—There is authorized to be appropriated to carry out this section $5,000,000 for each of fiscal years 2020 and 2021, to remain available until expended.

(f) Termination of Effectiveness.—The authority provided by this section terminates on December 31, 2021.
TITLE III—FEDERAL AGENCY

ENERGY EFFICIENCY

SEC. 301. ENERGY-EFFICIENT AND ENERGY-SAVING INFORMATION TECHNOLOGIES.

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

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

“(1) DEFINITIONS.—In this subsection:

“(A) DIRECTOR.—The term ‘Director’ means the Director of the Office of Management and Budget.

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

“(2) DEVELOPMENT OF IMPLEMENTATION STRATEGY.—Not later than 1 year after the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2019, each Federal agency shall coordinate with the Director, the Secretary, and the Administrator of the Environmental Protection Agency to develop an implementation strategy
(including best-practices and measurement and verification techniques) for the maintenance, purchase, and use by the Federal agency of energy-efficient and energy-saving information technologies at or for facilities owned and operated by the Federal agency, taking into consideration the performance goals established under paragraph (4).

“(3) Administration.—In developing an implementation strategy under paragraph (2), each Federal agency shall consider—

“(A) advanced metering infrastructure;

“(B) energy efficient data center strategies and methods of increasing asset and infrastructure utilization;

“(C) advanced power management tools;

“(D) building information modeling, including building energy management;

“(E) secure telework and travel substitution tools; and

“(F) mechanisms to ensure that the agency realizes the energy cost savings of increased efficiency and utilization.

“(4) Performance Goals.—

“(A) In General.—Not later than 180 days after the date of enactment of the Energy
Savings and Industrial Competitiveness Act of 2019, the Director, in consultation with the Secretary, shall establish performance goals for evaluating the efforts of Federal agencies in improving the maintenance, purchase, and use of energy-efficient and energy-saving information technology at or for facilities owned and operated by the Federal agencies.

“(B) BEST PRACTICES.—The Chief Information Officers Council established under section 3603 of title 44, United States Code, shall recommend best practices for the attainment of the performance goals established under subparagraph (A), which shall include, to the extent applicable by law, consideration by a Federal agency of the use of—

“(i) energy savings performance contracting; and

“(ii) utility energy services contracting.

“(5) REPORTS.—

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

“(B) OMB GOVERNMENT EFFICIENCY REPORTS AND SCORECARDS.—Effective beginning not later than October 1, 2019, the Director shall include in the annual report and scorecard of the Director required under section 528 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17144) a description of the efforts and results of Federal agencies under this subsection.

“(C) USE OF EXISTING REPORTING STRUCTURES.—The Director may require Federal agencies to submit any information required to be submitted under this subsection though reporting structures in use as of the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2019.”.

SEC. 302. ENERGY EFFICIENT DATA CENTERS.

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

(1) in subsection (b)—

(A) in paragraph (2)(D)(iv), by striking “determined by the organization” and inserting “proposed by the stakeholders”; and
(B) by striking paragraph (3); and

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

“(c) Stakeholder Involvement.—

“(1) In general.—The Secretary and the Administrator shall carry out subsection (b) in collaboration with the information technology industry and other key stakeholders, with the goal of producing results that accurately reflect the most relevant and useful information.

“(2) Considerations.—In carrying out the collaboration described in paragraph (1), the Secretary and the Administrator shall pay particular attention to organizations that—

“(A) have members with expertise in energy efficiency and in the development, operation, and functionality of data centers, information technology equipment, and software, including representatives of hardware manufacturers, data center operators, and facility managers;

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

“(C) follow—

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

“(ii) accredited standards development processes; or

“(D) have a mission to promote energy efficiency for data centers and information technology.

“(d) MEASUREMENTS AND SPECIFICATIONS.—The Secretary and the Administrator shall consider and assess the adequacy of the specifications, measurements, best practices, and benchmarks described in subsection (b) for use by the Federal Energy Management Program, the Energy Star Program, and other efficiency programs of the Department of Energy or the Environmental Protection Agency.

“(e) STUDY.—

“(1) DEFINITION OF REPORT.—In this subsection, the term ‘report’ means the report of the Lawrence Berkeley National Laboratory entitled ‘United States Data Center Energy Usage Report’ and dated June 2016, which was prepared as an up-

“(2) STUDY.—Not later than 4 years after the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2019, the Secretary, in collaboration with the Administrator, shall make available to the public an update to the report that provides—

“(A) a comparison and gap analysis of the estimates and projections contained in the report with new data regarding the period from 2015 through 2019;

“(B) an analysis considering the impact of information technologies, including virtualization and cloud computing, in the public and private sectors;

“(C) an evaluation of the impact of the combination of cloud platforms, mobile devices, social media, and big data on data center energy usage;

“(D) an evaluation of water usage in data centers and recommendations for reductions in that water usage; and
“(E) updated projections and recommendations for best practices through fiscal year 2025.

“(f) **Data Center Energy Practitioner Program.**

“(1) **In General.**—The Secretary, in collaboration with key stakeholders and the Director of the Office of Management and Budget, shall maintain a data center energy practitioner program that provides for the certification of energy practitioners qualified to evaluate the energy usage and efficiency opportunities in federally owned and operated data centers.

“(2) **Evaluations.**—Each Federal agency shall consider having the data centers of the agency evaluated once every 4 years by energy practitioners certified pursuant to the program, whenever practicable using certified practitioners employed by the agency.

“(g) **Open Data Initiative.**

“(1) **In General.**—The Secretary, in collaboration with key stakeholders and the Director of the Office of Management and Budget, shall establish an open data initiative relating to energy usage at federally owned and operated data centers, with the
purpose of making the data available and accessible in a manner that encourages further data center innovation, optimization, and consolidation.

“(2) CONSIDERATION.—In establishing the initiative under paragraph (1), the Secretary shall consider using the online Data Center Maturity Model.

“(h) INTERNATIONAL SPECIFICATIONS AND METRICS.—The Secretary, in collaboration with key stakeholders, shall actively participate in efforts to harmonize global specifications and metrics for data center energy and water efficiency.

“(i) DATA CENTER UTILIZATION METRIC.—The Secretary, in collaboration with key stakeholders, shall facilitate in the development of an efficiency metric that measures the energy efficiency of a data center (including equipment and facilities).

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

Subtitle A—Third-Party Certification Under Energy Star Program

SEC. 401. THIRD-PARTY CERTIFICATION UNDER ENERGY STAR PROGRAM.

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

“(e) THIRD-PARTY CERTIFICATION.—

“(1) IN GENERAL.—Subject to paragraph (2), not later than 180 days after the date of enactment of this subsection, the Administrator shall revise the certification requirements for the labeling of consumer, home, and office electronic products for program partners that have complied with all requirements of the Energy Star program for a period of at least 18 months.

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

“(A) shall not require third-party certification for a product to be listed; but
“(B) may require that test data and other product information be submitted to facilitate product listing and performance verification for a sample of products.

“(3) THIRD PARTIES.—Nothing in this subsection prevents the Administrator from using third parties in the course of the administration of the Energy Star program.

“(4) TERMINATION.—

“(A) IN GENERAL.—Subject to subparagraph (B), an exemption from third-party certification provided to a program partner under paragraph (1) shall terminate if the program partner is found to have violated program requirements with respect to at least 2 separate models during a 2-year period.

“(B) RESUMPTION.—A termination for a program partner under subparagraph (A) shall cease if the program partner complies with all Energy Star program requirements for a period of at least 3 years.”.
Subtitle B—Federal Green Buildings

SEC. 411. HIGH-PERFORMANCE GREEN FEDERAL BUILDINGS.

Section 436(h) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17092(h)) is amended—

(1) in the subsection heading, by striking “SYSTEM” and inserting “SYSTEMS”;

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

“(1) IN GENERAL.—Based on an ongoing review, the Federal Director shall identify and shall provide to the Secretary pursuant to section 305(a)(3)(D) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)(3)(D)) a list of those certification systems that the Director identifies as the most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings.”; and

(3) in paragraph (2)—

(A) in the matter preceding subparagraph (A), by striking “system” and inserting “systems”;

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

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

and

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

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

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

and

(E) by adding at the end the following:

“(G) a finding that, for all credits addressing the sourcing of grown, harvested, or mined materials, the system rewards the use of products that have obtained certifications of responsible sourcing, such as certifications provided by the Sustainable Forestry Initiative, the Forest Stewardship Council, the American Tree Farm System, or the Programme for the Endorsement of Forest Certification; and
“(H) a finding that the system incorporates life-cycle assessment as a credit pathway.”.

Subtitle C—Energy and Water Performance Requirements for Federal Buildings

SEC. 421. ENERGY AND WATER PERFORMANCE REQUIREMENTS FOR FEDERAL BUILDINGS.

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

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

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

“(a) Energy and Water Performance Requirements for Federal Buildings.—

“(1) Energy requirements.—Subject to paragraph (3), to the maximum extent life cycle cost-effective (as defined in subsection (f)(1)), each agency shall apply energy conservation measures to, and shall improve the design for the construction of, the Federal buildings of the agency (including each industrial or laboratory facility) so that the energy consumption per gross square foot of the Federal
buildings of the agency in fiscal years 2020 through 2027 is reduced, as compared with the energy consumption per gross square foot of the Federal buildings of the agency in fiscal year 2018, by the percentage specified in the following table:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Percentage Reduction</th>
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<tbody>
<tr>
<td>2020</td>
<td>2.5</td>
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<tr>
<td>2021</td>
<td>5</td>
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<tr>
<td>2022</td>
<td>7.5</td>
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<tr>
<td>2027</td>
<td>20</td>
</tr>
</tbody>
</table>

“(2) WATER REQUIREMENTS.—Subject to paragraph (3), the head of each Federal agency shall, for each of fiscal years 2020 through 2030, improve water use efficiency and management, including stormwater management, at facilities of the agency by reducing agency potable water consumption intensity—

“(A) by 54 percent by fiscal year 2030, relative to the water consumption of the agency in fiscal year 2007, through reductions of 2 percent each fiscal year (as measured in gallons 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—

“(A) review the results of the implementation of the energy and water performance requirements established under paragraph (1);
“(B) submit to Congress recommendations concerning energy performance requirements for fiscal years 2028 through 2037; and

“(C) submit to Congress recommendations concerning water performance requirements for fiscal years 2031 through 2040.”;

(3) in subsection (b)—

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

(B) by redesignating paragraphs (2) through (4) as paragraphs (3) through (5), respectively; and

(C) by striking paragraph (1) and inserting the following:

“(1) IN GENERAL.—Each agency shall—

“(A) not later than October 1, 2019, to the maximum extent practicable, begin installing in Federal buildings owned by the United States all energy and water conservation measures determined by the Secretary to be life cycle cost-effective (as defined in subsection (f)(1)); and

“(B) complete the installation described in subparagraph (A) as soon as practicable after the date referred to in that subparagraph.
“(2) EXPLANATION OF NONCOMPLIANCE.—

“(A) IN GENERAL.—If an agency fails to comply with paragraph (1), the agency shall submit to the Secretary, using guidelines developed by the Secretary, an explanation of the reasons for the failure.

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

(4) in subsection (c)(1)—

(A) in subparagraph (A)—

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

(ii) by inserting “or water” after “energy” each place it appears; and

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

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

(6) in subsection (e)—
(A) in the subsection heading, by inserting “and Water” after “Energy”;

(B) in paragraph (1)—

(i) in the first sentence—

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

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

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

(ii) in the second sentence, by inserting “and water” after “electricity”; and

(iii) in the fourth sentence, by inserting “and water” after “energy”;

(C) in paragraph (2)—

(i) in subparagraph (A)—

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

(II) by inserting “and any other person the Secretary deems necessary,” before “shall”;

(ii) in subparagraph (B)—

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

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

(iii) by adding at the end the following:

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

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

(E) in paragraph (4)—

(i) in subparagraph (A)—

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

(II) by inserting “and water” be-
fore “use in”; and
(ii) in subparagraph (B)(ii), in the
matter preceding clause (I), by inserting
“and water” after “energy”; and

(7) in subsection (f)—

(A) in paragraph (1)—

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

(ii) by inserting after subparagraph

(D) the following:

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

(B) in paragraph (2)—

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

(ii) in subparagraph (B)—

(I) by striking “energy” before
“efficiency”; and
(II) by inserting “or water” before “use”; and

(iii) by adding at the end the following:

“(C) ENERGY MANAGEMENT SYSTEM.—An energy manager designated for a facility under subparagraph (A) shall take into consideration—

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

“(ii) the applicability of the certification of the facility in accordance with the International Organization for Standardization standard numbered 50001 and entitled ‘Energy Management Systems’.”;

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

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

“(A) EVALUATIONS.—Except as provided in subparagraph (B), not later than the date that is 180 days after the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2019, and annually thereafter, each energy manager shall complete, for the pre-
ceeding calendar year, a comprehensive energy and water evaluation and recommissioning or retrocommissioning for approximately 25 percent of the facilities of the applicable agency that meet the criteria under paragraph (2)(B) in a manner that ensures that an evaluation of each facility is completed not less frequently than once every 4 years.

“(B) EXCEPTIONS.—An evaluation and recommissioning or retrocommissioning shall not be required under subparagraph (A) with respect to a facility that, as of the date on which the evaluation and recommissioning or retrocommissioning would occur—

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

“(ii)(I) has been commissioned, recommissioned, or retrocommissioned during the preceding 10-year period; or

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

“(iii) has not had a major change in function or use since the previous evalua-
tion and recommissioning or retrocommissioning;

“(iv) has been benchmarked with public disclosure under paragraph (8) during the preceding calendar year; and

“(v)(I) based on the benchmarking described in clause (iv), has achieved at a facility level the most recent cumulative energy savings target under subsection (a) compared to the earlier of—

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

“(bb) the date—

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

“(BB) on which ongoing commissioning began; or

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

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

“(A) implement any energy- or water-saving measure that the Federal agency identified in the evaluation that is life cycle cost-effective; and

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

(D) in paragraph (7)(B)(ii)(II), by inserting “and water” after “energy”; and

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

(b) CONFORMING AMENDMENT.—The table of contents for the National Energy Conservation Policy Act (Public Law 95–619; 92 Stat. 3206) is amended by striking the item relating to section 543 and inserting the following:

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

SEC. 422. FEDERAL ENERGY MANAGEMENT PROGRAM.

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

“(h) FEDERAL ENERGY MANAGEMENT PROGRAM.—

“(1) IN GENERAL.—The Secretary shall establish a program, to be known as the ‘Federal Energy
Management Program’ (referred to in this subsection as the ‘Program’), to facilitate the implementation by the Federal Government of cost-effective energy and water management and energy-related investment practices—

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

“(B) to promote environmental stewardship.

“(2) PROGRAM ACTIVITIES.—

“(A) STRATEGIC PLANNING AND TECHNICAL ASSISTANCE.—Under the Program, the Federal Director appointed under paragraph (3)(A) (referred to in this subsection as the ‘Federal Director’) shall—

“(i) provide technical assistance and project implementation support and guidance to Federal agencies to identify, implement, procure, and track energy and water conservation measures required under this Act and under other provisions of law (including regulations);

“(ii) in coordination with the Administrator of the General Services Administration, establish appropriate procedures,
methods, and best practices for use by Federal agencies to select, monitor, and terminate contracts entered into under section 546 with utilities;

“(iii) in coordination with the Federal Acquisition Regulatory Council, establish appropriate procedures, methods, and best practices for use by Federal agencies to select, monitor, and terminate contracts entered into under section 801 with energy service contractors and utilities;

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

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

“(vi) establish a recognition program for Federal achievement in energy and water management, energy-related investment practices, environmental stewardship, and other relevant areas, through events
such as individual recognition award ceremonies and public announcements.

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

“(i) track and report on the progress of Federal agencies in meeting the requirements of the agency under this section;

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

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

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

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

“(II) based on that data, submit to each Federal agency a report that will facilitate the energy and water management, energy-related investment practices, and environmental stewardship of the agency in support of Federal goals under this Act
and under other provisions of law (including regulations);

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

“(II) in consultation with the Administrator of the General Services Administration, acting through the head of the Office of High-Performance Green Buildings, establish and implement Federal building sustainable design principles for Federal facilities;

“(v) manage the implementation of Federal building energy efficiency standards established under section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834); and

“(vi) designate products that meet the highest energy conservation standards for categories not covered under the Energy Star program established under section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a).

“(C) FEDERAL POLICY COORDINATION.—

Under the Program, the Federal Director shall—
“(i) develop and implement accredited training consistent with existing Federal programs and activities—

“(I) relating to energy and water use, management, and resilience in Federal buildings, energy-related investment practices, and environmental stewardship; and

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

“(ii) coordinate and facilitate energy and water management, energy-related investment practices, and environmental stewardship through the Interagency Energy Management Task Force established under section 547; and

“(iii) report on the implementation of the priorities of the President, including Executive orders, relating to energy and water use in Federal buildings, in coordination with—

“(I) the Office of Management and Budget;
“(II) the Council on Environmental Quality; and
“(III) any other entity, as considered necessary by the Federal Director.

“(D) FACILITY AND FLEET OPTIMIZATION.—Under the Program, the Federal Director shall develop guidance, supply assistance to, and track the progress of Federal agencies—
“(i) in conducting portfolio-wide facility energy and water resilience planning and project integration;
“(ii) in building new construction and major renovations to meet the sustainable design and energy and water performance standards required under this section;
“(iii) in developing guidelines for—
“(I) building commissioning; and
“(II) facility operations and maintenance; and
“(iv) in coordination with the Administrator of the General Services Administration, in meeting statutory and agency goals for Federal fleet vehicles.

“(3) FEDERAL DIRECTOR.—
“(A) APPOINTMENT.—The Secretary shall appoint an individual to serve as Federal Director of the Program, which shall be a career position in the Senior Executive service, to manage the Program and carry out the activities of the Program described in paragraph (2).

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

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

“(ii) provide leadership in energy and water management, energy-related investment practices, and environmental stewardship through coordination with Federal agencies and other appropriate entities; and

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

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

“(II) consist of representatives from—

“(aa) the Council on Environmental Quality;
“(bb) the Office of Management and Budget; and

“(cc) the Office of Federal High-Performance Green Buildings in the General Services Administration.

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

“(5) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this subsection $36,000,000 for each of fiscal years 2020 through 2030.”.

SEC. 423. FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS.

(a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended—

(1) in each of paragraphs (1) through (16), by inserting a paragraph heading, the text of which is comprised of the term defined in that paragraph;
(2) by redesignating paragraphs (2) through (16) as paragraphs (3), (4), (6), (7), (8), (10), (12), (13), (14), (15), (16), (9), (17), (5), and (2), respectively, and moving the paragraphs so as to appear in numerical order; and

(3) by inserting after paragraph (10) (as so redesignated) the following:

“(11) MAJOR RENOVATION.—The term ‘major renovation’ means a modification of the energy systems of a building that is sufficiently extensive to ensure that the entire building can achieve compliance with applicable energy standards for new buildings, as established by the Secretary.”.

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

(1) in subsection (a)(3)—

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

“(3) REVISED FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS; CERTIFICATION FOR GREEN BUILDINGS.—
“(A) Revised Federal Building Energy Efficiency Performance Standards.—

“(i) In general.—Not later than 1 year after the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2019, the Secretary shall establish, by regulation, revised Federal building energy efficiency performance standards that require that—

“(I) subject to clause (ii), new Federal buildings and Federal buildings with major renovations—

“(aa) meet or exceed the most recently published version of the International Energy Conservation Code (in the case of residential buildings) or ASHRAE Standard 90.1 (in the case of commercial buildings) as of the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2019; and

“(bb) meet or exceed the energy provisions of the State and
local building codes applicable to
the building if the codes are more
stringent than the most recently
published version of the Inter-
national Energy Conservation
Code or ASHRAE Standard 90.1
as of the date of enactment of
the Energy Savings and Indus-
trial Competitiveness Act of
2019, as applicable;
“(II) unless demonstrated not to
be life cycle cost-effective for new
Federal buildings and Federal build-
ings with major renovations—
“(aa) the buildings shall be
designed to achieve energy con-
sumption levels that are not less
than 30 percent below the levels
established in the most recently
published version of the Inter-
national Energy Conservation
Code or the ASHRAE Standard,
as of the date of enactment of
the Energy Savings and Indus-
trial Competitiveness Act of 2019, as appropriate; and

“(bb) sustainable design principles are applied to the location, siting, design, and construction of all new Federal buildings and replacement Federal buildings;

“(III) if water is used to achieve energy efficiency, water conservation technologies shall be applied to the extent that the technologies are life-cycle cost effective; and

“(IV) if life-cycle cost effective, as compared to other reasonably available technologies, not less than 30 percent of the hot water demand for each new Federal building or Federal building undergoing a major renovation be met through the installation and use of solar hot water heaters.

“(ii) EXCEPTION.—Clause (i)(I) shall not apply to the unaltered portions of Federal buildings and systems that have undergone major renovations.
“(B) Updates.—Not later than 1 year after the date of approval of each subsequent revision of the ASHRAE Standard or the International Energy Conservation Code, as appropriate, the Secretary shall determine whether the revised standards established under subclauses (I) and (II) of subparagraph (A)(i) should be updated to reflect the revisions, based on the energy savings and life cycle cost-effectiveness of the revisions.”;

(B) in subparagraph (C), by striking “(C) In the budget request” and inserting the following:

“(C) Budget request.—In the budget request”; and

(C) by striking subparagraph (D) and inserting the following:

“(D) Certification for green buildings.—

“(i) Sustainable design principles.—Sustainable design principles shall be applied to the siting, design, and construction of buildings covered by this subparagraph.
“(ii) Selection of Certification Systems.—The Secretary, after reviewing the findings of the Federal Director under section 436(h) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17092(h)), in consultation with the Administrator of General Services, and in consultation with the Secretary of Defense relating to those facilities under the custody and control of the Department of Defense, shall determine those certification systems for green commercial and residential buildings that the Secretary determines to be the most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings.

“(iii) Basis for Selection.—The determination of the certification systems under clause (ii) shall be based on ongoing review of the findings of the Federal Director under section 436(h) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17092(h)) and the criteria described in clause (v).
“(iv) ADMINISTRATION.—In determining certification systems under this subparagraph, the Secretary shall—

“(I) make a separate determination for all or part of each system; and

“(II) confirm that the criteria used to support the selection of building products, materials, brands, and technologies—

“(aa) are based on relevant technical data;

“(bb) use and reward evaluation of health, safety, and environmental risks and impacts across the lifecycle of the building product, material, brand, or technology, including methodologies generally accepted by the applicable scientific disciplines;

“(cc) as practicable, give preference to performance standards 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—
“(aa) efficient and sustainable use of water, energy, and other natural resources;

“(bb) use of renewable energy sources;

“(cc) improved indoor environmental quality through enhanced indoor air quality, thermal comfort, acoustics, day lighting, pollutant source control, and use of low-emission materials and building system controls;

“(dd)(AA) the sourcing of grown, harvested, or mined materials; and

“(BB) certifications of responsible sourcing, such as certifications provided by the Forest Stewardship Council, the Sustainable Forestry Initiative, the American Tree Farm System, or the Programme for the Endorsement of Forest Certification; and
“(ee) such other criteria as
the Secretary determines to be
appropriate; and
“(V) national recognition within
the building industry.
“(vi) REVIEW.—The Secretary, in
consultation with the Administrator of
General Services and the Secretary of De-
fense, shall conduct an ongoing review to
evaluate and compare private sector green
building certification systems, taking into
account—
“(I) the criteria described in
clause (v); and
“(II) the identification made by
the Federal Director under section
436(h) of the Energy Independence
and Security Act of 2007 (42 U.S.C.
17092(h)).
“(vii) EXCLUSIONS.—
“(I) IN GENERAL.—Subject to
subclause (II), if a certification sys-
tem fails to meet the review require-
ments of clause (v), the Secretary
shall—
“(aa) identify the portions
of the system, whether pre-
requisites, credits, points, or oth-
wise, that meet the review cri-
teria of clause (v);

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

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

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

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

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

“(cc) increases agency costs
of the use.

“(viii) INTERNAL CERTIFICATION
PROCESSES.—The Secretary may by rule
allow Federal agencies to develop internal
certification processes, using certified professionals, in lieu of certification by certification entities identified under clause (ii).

“(ix) Privatized military housing.—With respect to privatized military housing, the Secretary of Defense, after consultation with the Secretary may, through rulemaking, develop alternative certification systems and levels than the systems and levels identified under clause (ii) that achieve an equivalent result in terms of energy savings, sustainable design, and green building performance.

“(x) Water conservation technologies.—In addition to any use of water conservation technologies otherwise required by this section, water conservation technologies shall be applied to the extent that the technologies are life-cycle cost-effective.

“(xi) Effective date.—

“(I) Determinations made after December 31, 2019.—The amendments made by section 422(b)(1)(C) of the Energy Savings
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and Industrial Competitiveness Act of
2019 shall apply to any determination
made by a Federal agency after De-
cember 31, 2019.

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

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

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

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

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

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

(1) in subsection (a)—

(A) in paragraph (1)—

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

“(1) IN GENERAL.—The head”; and

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

(B) in paragraph (2)—

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

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

(ii) in the first sentence—
(I) by inserting “and Federal buildings with major renovations” after “new buildings”; and

(II) by striking “(2) The Federal” and inserting the following:

“(2) APPLICABILITY.—

“(A) IN GENERAL.—The Federal”; and

(2) in subsection (b)—

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

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

SEC. 424. ENHANCED ENERGY EFFICIENCY UNDERWRITING.

(a) DEFINITIONS.—In this section:

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

(A) means—

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

(ii) any other agency of the Federal Government; and
(B) includes any enterprise, as that term is defined under section 1303 of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (12 U.S.C. 4502).

(2) COVERED LOAN.—The term “covered loan” means a loan secured by a home that is issued, insured, purchased, or securitized by a covered agency.

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

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

(A) an original lender under a covered loan or the holder of a covered loan at the time at which that mortgage transaction is consummated;

(B) any affiliate, agent, subsidiary, successor, or assignee of an original lender under a covered loan or the holder of a covered loan at the time at which that mortgage transaction is consummated;

(C) any servicer of a covered loan; and

(D) any subsequent purchaser, trustee, or transferee of any covered loan issued by an original lender.
(5) **SECRETARY.**—The term “Secretary” means the Secretary of Housing and Urban Development.

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

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

(b) **FINDINGS AND PURPOSES.**—

(1) **FINDINGS.**—Congress finds that—

(A) energy costs for homeowners are a significant and increasing portion of their household budgets;

(B) household energy use can vary substantially depending on the efficiency and characteristics of the house;

(C) expected energy cost savings are important to the value of the house;

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

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

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

(A) improve the accuracy of mortgage underwriting by Federal mortgage agencies by ensuring that energy cost savings are included in the underwriting process as described below, and thus to reduce the amount of energy consumed by homes and to facilitate the creation of energy efficiency retrofit and construction jobs;

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

(C) require a covered agency to include the value home buyers place on the energy efficiency of a house in tests used to compare the
mortgage amount to home value, taking precautions to avoid double-counting and to support safe and sound lending.

(c) **Enhanced Energy Efficiency Underwriting Criteria.**—

(1) **In General.**—Not later than 1 year after the date of enactment of this Act, the Secretary shall, in consultation with the advisory group established in subsection (f)(2), develop and issue guidelines for a covered agency to implement enhanced loan eligibility requirements, for use when testing the ability of a loan applicant to repay a covered loan, that account for the expected energy cost savings for a loan applicant at a subject property, in the manner set forth in paragraphs (2) and (3).

(2) **Requirements to Account for Energy Cost Savings.**—

(A) **In General.**—The enhanced loan eligibility requirements under paragraph (1) shall require that, for all covered loans for which an energy efficiency report is voluntarily provided to the mortgagee by the mortgagor, the covered agency and the mortgagee shall take into consideration the estimated energy cost savings expected 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.
(B) Report requirements.—For the purposes of subparagraph (A), an energy efficiency report shall—

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

(ii) be prepared in accordance with the guidelines to be issued under paragraph (1); and

(iii) be prepared—

(I) in accordance with the Residential Energy Service Network’s Home Energy Rating System (commonly known as “HERS”) by an individual certified by the Residential Energy Service Network, unless the Secretary finds that the use of HERS does not further the purposes of this section; or

(II) by other methods approved by the Secretary, in consultation with the Secretary of Energy and the advisory group established in subsection (f)(2), for use under this section,
which shall include a third-party quality assurance procedure.

(C) Use by Appraiser.—If an energy efficiency report is used under paragraph (2), the energy efficiency report shall be provided to the appraiser to estimate the energy efficiency of the subject property and for potential adjustments for energy efficiency.

(4) Required disclosure to consumer for a home with an energy efficiency report.—If an energy efficiency report is used under paragraph (2), the guidelines to be issued under paragraph (1) shall require the mortgagee to—

(A) inform the loan applicant of the expected energy costs as estimated in the energy efficiency report, in a manner and at a time as prescribed by the Secretary, and if practicable, in the documents delivered at the time of loan application; and

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

(5) Required disclosure to consumer for a home without an energy efficiency report.—If an energy efficiency report is not used
under paragraph (2), the guidelines to be issued under paragraph (1) shall require the mortgagee to inform the loan applicant in a manner and at a time as prescribed by the Secretary, and if practicable, in the documents delivered at the time of loan application of—

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

(B) the impact the typical energy cost savings would have on monthly ownership costs of a typical home;

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

(D) resources for improving the energy efficiency of a home.

(6) PRICING OF LOANS.—

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

(A) in consultation with the Federal Financial Institutions Examination Council and the advisory group established in subsection (f)(2), develop and issue guidelines for a covered agency to determine the maximum permitted loan amount based on the value of the property for all covered loans made on properties with an energy efficiency report that meets the requirements of subsection (c)(3)(B); and

(B) in consultation with the Secretary of Energy, issue guidelines for a covered agency to determine the estimated energy savings under paragraph (3) for properties with an energy efficiency report.

(2) REQUIREMENTS.—The enhanced energy efficiency underwriting valuation guidelines required under paragraph (1) shall include—

(A) a requirement that if an energy efficiency report that meets the requirements of subsection (c)(3)(B) is voluntarily provided to the mortgagee, such report shall be used by the
mortgagee or covered agency to determine the estimated energy savings of the subject property; and

(B) a requirement that the estimated energy savings of the subject property be added to the appraised value of the subject property by a mortgagee or covered agency for the purpose of determining the loan-to-value ratio of the subject property, unless the appraisal includes the value of the overall energy efficiency of the subject property, using methods to be established under the guidelines issued under paragraph (1).

(3) DETERMINATION OF ESTIMATED ENERGY SAVINGS.—

(A) AMOUNT OF ENERGY SAVINGS.—The amount of estimated energy savings shall be determined by calculating the difference between the estimated energy costs for the average comparable houses, as determined in guidelines to be issued under paragraph (1), and the estimated energy costs for the subject property based upon the energy efficiency report.

(B) DURATION OF ENERGY SAVINGS.—The duration of the estimated energy savings shall
be based upon the estimated life of the applicable equipment, consistent with the rating system used to produce the energy efficiency report.

(C) Present Value of Energy Savings.—The present value of the future savings shall be discounted using the average interest rate on conventional 30-year mortgages, in the manner directed by guidelines issued under paragraph (1).


(A) in paragraph (2), by striking “and” at the end;

(B) in paragraph (3), by striking the period at the end and inserting “; and”; and

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

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

“(A) labels or ratings of buildings;
“(B) installed appliances, measures, sys-
tems or technologies;
“(C) blueprints;
“(D) construction costs;
“(E) financial or other incentives regard-
ing energy- and water-efficient components and
systems installed in a property;
“(F) utility bills;
“(G) energy consumption and
benchmarking data; and
“(H) third-party verifications or representa-
tions of energy and water efficiency perform-
ance of a property, observing all financial pri-
vacy requirements adhered to by certified and
licensed appraisers, including section 501 of the

Unless a property owner consents to a lender, an ap-
praiser, in carrying out the requirements of para-
graph (4), shall not have access to the commercial
or financial information of the owner that is privi-
leged or confidential.”.
(5) Transactions requiring state certified appraisers.—Section 1113 of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (12 U.S.C. 3342) is amended—

(A) in paragraph (1), by inserting before the semicolon the following: “, or any real property on which the appraiser makes adjustments using an energy efficiency report”; and

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

(6) Protections.—

(A) Authority to impose limitations.—The guidelines to be issued under paragraph (1) shall include such limitations and conditions as determined by the Secretary to be necessary to protect against meaningful under or over valuation of energy cost savings or duplicative counting of energy efficiency features or energy cost savings in the valuation of any subject property that is used to determine a loan amount.

(B) Additional authority.—At the end 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
relevant activity shall issue and make available to the public a report that—

(1) enumerates the number of covered loans of the agency for which there was an energy efficiency report, and that used energy efficiency appraisal guidelines and enhanced loan eligibility requirements;

(2) includes the default rates and rates of foreclosures for each category of loans; and

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

(f) Rulemaking.—

(1) In general.—The Secretary shall prescribe regulations to carry out this section, in consultation with the Secretary of Energy and the advisory group established in paragraph (2), which may contain such classifications, differentiations, or other provisions, and may provide for such proper implementation and appropriate treatment of different types of transactions, as the Secretary determines are necessary or proper to effectuate the purposes of this section, to prevent circumvention or evasion thereof, or to facilitate compliance therewith.
(2) ADVISORY GROUP.—To assist in carrying out this section, the Secretary shall establish an advisory group, consisting of individuals representing the interests of—

(A) mortgage lenders;

(B) appraisers;

(C) energy raters and residential energy consumption experts;

(D) energy efficiency organizations;

(E) real estate agents;

(F) home builders and remodelers;

(G) State energy officials; and

(H) others as determined by the Secretary.

(g) ADDITIONAL STUDY.—

(1) IN GENERAL.—Not later than 18 months after the date of enactment of this Act, the Secretary shall reconvene the advisory group established in subsection (f)(2), in addition to water and locational efficiency experts, to advise the Secretary on the implementation of the enhanced energy efficiency underwriting criteria established in subsections (c) and (d).

(2) RECOMMENDATIONS.—

(A) IN GENERAL.—The advisory group established 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.