I

116TH CONGRESS
2D SESSION

H. R. 9036

To amend title VI of the Public Utility Regulatory Policies Act of 1978 to establish a Federal renewable electricity standard for retail electricity suppliers and a Federal energy efficiency resource standard for retail electricity suppliers and retail natural gas suppliers, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 18, 2020

Mr. WELCH (for himself, Ms. CLARKE of New York, and Mr. LUJÁN) introduced the following bill; which was referred to the Committee on Energy and Commerce

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A BILL

To amend title VI of the Public Utility Regulatory Policies Act of 1978 to establish a Federal renewable electricity standard for retail electricity suppliers and a Federal energy efficiency resource standard for retail electricity suppliers and retail natural gas suppliers, and for other purposes.

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

SECTION 1. SHORT TITLE; FINDINGS.

(a) SHORT TITLE.—This Act may be cited as the ''American Renewable Energy and Efficiency Act''.

(b) FINDINGS.—Congress finds that—

(1) the Federal renewable electricity standard established by section 610 of the Public Utility Regulatory Policies Act of 1978 (as added by this Act) establishes a market-based policy to create ongoing competition among renewable electricity generators across the United States and provide the greatest quantity of clean electricity for the lowest price;

(2) the United States has vast wind, solar, hydropower, biomass, and geothermal resources that—

(A) are renewable;

(B) are dispersed widely across different regions of the United States; and

(C) can be harnessed to generate a significant share of electricity in the United States;

(3) the Federal energy efficiency resource standard established by section 611 of the Public Utility Regulatory Policies Act of 1978 (as added by this Act)—

(A) establishes nationwide minimum levels of electricity and natural gas savings to be achieved through utility efficiency programs, building energy codes, appliance standards, and related efficiency measures; and

(B) rewards energy-saving improvements achieved through—

(i) end-use energy efficiency upgrades;

(ii) reduced losses in transmission and distribution of energy; and

(iii) fuel switching, to the extent that the switching results in reduced primary energy use; and

(4) in light of the cost-effective energy efficiency opportunities that exist across the United States in every sector of the economy, retail electricity suppliers, retail natural gas suppliers, and States should—

(A) include energy efficiency as a resource in utility planning and procurement activities; and

(B) seek to achieve all energy efficiency measures that are available at lower cost than other energy supply options.

SEC. 2. FEDERAL RENEWABLE ELECTRICITY STANDARD.

Title VI of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.) is amended by adding after section 609 (7 U.S.C. 918c) the following:

"SEC. 610. FEDERAL RENEWABLE ELECTRICITY STANDARD.

''(a) DEFINITIONS.—In this section:

''(1) FEDERAL RENEWABLE ELECTRICITY CREDIT.—The term 'Federal renewable electricity credit' means a credit, that represents, for purposes of compliance with this section, 1 megawatt hour of renewable electricity, issued pursuant to subsection (e).

''(2) IMPACTED COMMUNITY.—The term 'impacted community' means—

''(A) an economically distressed area affected by environmental pollution or other hazards that can lead to—

''(i) exposure to the pollution or hazard, including negative public health effects resulting from that exposure; or

''(ii) environmental degradation; or

''(B) an economically distressed area affected by high unemployment due to—

''(i) a significant decline in coal mining activity; or

''(ii) the closure of a coal-fired power plant.

''(3) INDIAN LAND.—The term 'Indian land' means—

''(A) any land within the limits of any Indian reservation, pueblo, or rancheria;

"(B) any land not within the limits of any Indian reservation, pueblo, or rancheria title to which on the date of enactment of this section was held by—

"(i) the United States for the benefit of any Indian Tribe or individual; or

"(ii) any Indian Tribe or individual subject to restriction by the United States against alienation;

"(C) any dependent Indian community; or

"(D) any land conveyed under the Alaska Native Claims Settlement Act to any Native Corporation (as that term is defined in section 3 of that Act).

"(4) INDIAN TRIBE.—The term 'Indian Tribe' means any Indian Tribe, band, nation, or other organized group or community (including any Native village, Regional Corporation, or Village Corporation (as those terms are defined in section 3 of the Alaska Native Claims Settlement Act)) that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

"(5) QUALIFIED HYDROPOWER.—The term 'qualified hydropower' means energy produced from

generating capacity added to a dam on or after January 1, 2001, if the Commission certifies that—

''(A) the dam—

''(i) was placed in service before the date of enactment of this section;

''(ii) was operated for flood control, navigation, or water supply purposes; and

''(iii) was not producing hydroelectric power prior to the addition of the capacity; and

''(B) the hydroelectric project installed on the dam—

''(i) is licensed or is exempt from licensing by the Commission;

''(ii) is in compliance with—

''(I) the terms and conditions of the license or exemption; and

''(II) other applicable legal requirements for the protection of environmental quality, including applicable fish passage requirements; and

''(iii) is operated so that the water surface elevation at any given location and time that would have occurred in the absence of the hydroelectric project is main-

tained, subject to any license or exemption requirements that require changes in water surface elevation for the purpose of improving the environmental quality of the affected waterway.

''(6) QUALIFIED RENEWABLE BIOMASS.—The term 'qualified renewable biomass' means renewable biomass that, when combusted, yields, on a weighted-average basis, at least 50 percent less lifecycle greenhouse gas emissions (as defined in section 4(a) of the American Renewable Energy and Efficiency Act) per unit of useful energy, than the lifecycle greenhouse gas emissions, including methane leakage, from the generation of such unit of useful energy by a combined cycle natural gas electric generating unit using the most efficient commercially available technology (based on lifecycle greenhouse gas emissions).

''(7) RENEWABLE BIOMASS.—The term 'renewable biomass' means—

''(A) crop byproducts or crop residues harvested from actively managed or fallow agricultural land that is cleared prior to the date of enactment of this section;

''(B) planted trees, brush, slash, and residues from an actively managed tree farm dedicated to energy crop production and located on land cleared prior to the date of enactment of this section;

''(C) byproducts of wood or paper mill operations, including lignin in spent pulping liquors;

''(D) algae;

''(E) nonhazardous plant matter derived from waste—

''(i) including separated yard waste, landscape right-of-way trimmings, or food waste; but

''(ii) not including municipal solid waste, recyclable waste paper, painted, treated or pressurized wood, or wood contaminated with plastic or metals; and

''(F) vegetative matter removed from within 200 yards of any manmade structure or campground for the purposes of protecting structures from wildfire.

''(8) RENEWABLE ELECTRICITY.—The term 'renewable electricity' means electricity generated (in-

cluding by means of a fuel cell) from a renewable energy resource.

''(9) RENEWABLE ENERGY RESOURCE.—The term 'renewable energy resource' means each of the following:

''(A) Wind energy.

''(B) Solar energy.

''(C) Geothermal energy.

''(D) Qualified renewable biomass.

''(E) Biogas derived from qualified renewable biomass.

''(F) Biofuel derived from qualified renewable biomass.

''(G) Biogas derived from anaerobic digestion at wastewater treatment facilities or from farms through anaerobic digesters.

''(H) Qualified hydropower.

''(I) Marine and hydrokinetic renewable energy (as defined in section 632 of the Energy Independence and Security Act of 2007).

''(J) Landfill gas.

''(10) RETAIL ELECTRICITY SUPPLIER.—

''(A) IN GENERAL.—The term 'retail electricity supplier' means, for any calendar year, an electric utility that sells not fewer than

1,000,000 megawatt hours of electricity to electric consumers during the preceding calendar year.

''(B) INCLUSIONS AND LIMITATIONS.—For purposes of determining whether an electric utility qualifies as a retail electricity supplier under subparagraph (A)—

''(i) the sales made by any affiliate of the electric utility to electric consumers, other than sales to lessees or tenants of the affiliate, shall be considered to be sales made by the electric utility; and

''(ii) sales made by the electric utility to an affiliate, lessee, or tenant of the electric utility shall not be treated as sales to electric consumers.

''(C) AFFILIATE.—In this paragraph, the term 'affiliate' when used in relation to a person, means another person that directly or indirectly owns or controls, is owned or controlled by, or is under common ownership or control with, that person, as determined under regulations promulgated by the Commission.

''(11) RETAIL ELECTRICITY SUPPLIER'S BASE QUANTITY.—The term 'retail electricity supplier's

base quantity' means the total quantity of electricity sold by the retail electricity supplier, expressed in megawatt hours, to electric consumers during the relevant calendar year, excluding—

"(A) electricity generated by a hydroelectric facility, other than qualified hydropower; and

"(B) electricity generated by the combustion of municipal solid waste.

"(12) RETIRE AND RETIREMENT.—The terms 'retire' and 'retirement' with respect to a Federal renewable electricity credit, mean to disqualify the credit for any subsequent use under this section, regardless of whether the use is a sale, transfer, exchange, or submission in satisfaction of a compliance obligation.

"(b) ANNUAL COMPLIANCE OBLIGATION.—Except as otherwise provided in subsection (f), for each of calendar years 2021 through 2039, not later than March 31 of the following calendar year, each retail electricity supplier shall submit to the Commission a quantity of Federal renewable electricity credits that represents a quantity of megawatt hours of renewable electricity that is at least equal to the annual target of the retail electricity supplier under subsection (d).

''(c) ESTABLISHMENT.—

''(1) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Commission shall promulgate regulations to implement and enforce the requirements of this section.

''(2) CONSIDERATIONS.—In promulgating regulations under paragraph (1), the Commission shall, to the maximum extent practicable—

''(A) preserve the integrity and incorporate best practices of existing State and tribal renewable electricity programs;

''(B) preserve the integrity of voluntary renewable energy markets;

''(C) delegate to an appropriate market-making entity the administration of a national tradeable Federal renewable electricity credit market for purposes of creating a transparent national market for the sale or trade of Federal renewable electricity credits, relying on existing and emerging State, tribal, or regional tracking systems that issue and track non-Federal renewable electricity credits; and

''(D) cooperate with States and Indian Tribes—

''(i) to facilitate coordination between State, tribal, and Federal renewable electricity programs; and

''(ii) to minimize administrative burdens and costs to retail electricity suppliers.

''(d) ANNUAL COMPLIANCE REQUIREMENT.—

''(1) ANNUAL TARGETS.—For each of calendar years 2021 through 2039, the annual target of a retail electricity supplier shall be equal to the number of megawatt hours that is equal to the product obtained by multiplying—

''(A) the required annual percentage for that calendar year under paragraph (2); and

''(B) the retail electricity supplier's base quantity for that calendar year.

''(2) REQUIRED ANNUAL PERCENTAGE.—

''(A) CALENDAR YEARS 2021 THROUGH 2030.—For each of calendar years 2021 through 2030, the required annual percentage shall be as follows:

"Year:	Required annual percentage:
2021	21.0
2022	24.5
2023	28.0
2024	31.5
2025	35.0
2026	39.0
2027	43.0
2028	47.0
2029	51.0
2030	55.0

"(B) CALENDAR YEARS 2031 THROUGH 2039.—

"(i) INCREASE.—Except as provided in clause (ii), for each of calendar years 2031 through 2039, the required annual percentage shall be equal to the required annual percentage for the previous calendar year plus 4 percentage points.

"(ii) FEASIBILITY.—

"(I) ADJUSTMENT.—Except as provided in subclause (II), for any of calendar years 2031 through 2039, the Commission may increase or decrease the 4 percentage point increase required under clause (i) if the Commission determines necessary based on technical and economic feasibility studies or other equivalent means.

"(II) EXCEPTION.—For each of calendar years 2031 through 2039, the percentage point increase required under this subparagraph for the required annual percentage shall be greater than zero.

"(e) FEDERAL RENEWABLE ELECTRICITY CREDITS.—

"(1) IN GENERAL.—

"(A) ISSUANCE; TRACKING; VERIFICATION.—The regulations promulgated under this section shall include provisions governing the issuance, tracking, and verification of Federal renewable electricity credits.

"(B) CREDIT RATIO.—Except as provided in paragraphs (2) through (4), the Commission shall issue to each generator of renewable electricity 1 Federal renewable electricity credit for each megawatt hour of renewable electricity generated by the generator after December 31, 2020.

"(C) SERIAL NUMBER.—The Commission shall assign a unique serial number to each Federal renewable electricity credit.

''(2) GENERATION FROM CERTAIN STATE RENEWABLE ELECTRICITY PROGRAMS.—

''(A) IN GENERAL.—If renewable electricity is generated with the support of payments from a retail electricity supplier pursuant to a State renewable electricity program (whether through State alternative compliance payments or through payments to a State renewable electricity procurement fund or entity), the Commission shall issue Federal renewable electricity credits to the retail electricity supplier for the portion of the relevant renewable electricity generation that is attributable to payments made by the retail electricity supplier, as determined pursuant to regulations promulgated by the Commission.

''(B) REMAINING PORTION.—For any remaining portion of the relevant renewable electricity generation, the Commission shall issue Federal renewable electricity credits to the generator, as provided in paragraph (1), except that not more than 1 Federal renewable electricity credit shall be issued for the same megawatt hour of electricity.

"(C) STATE GUIDANCE.—In determining how Federal renewable electricity credits will be apportioned among retail electricity suppliers and generators under this paragraph, the Commission shall consider information and guidance issued by the applicable one or more States.

"(3) CERTAIN POWER SALES CONTRACTS.—Except as otherwise provided in paragraph (2), if a generator has sold renewable electricity to a retail electricity supplier under a contract for power from a facility placed in service before the date of enactment of this section, and the contract does not provide for the determination of ownership of the Federal renewable electricity credits associated with the generation, the Commission shall issue the Federal renewable electricity credits to the retail electricity supplier for the duration of the contract.

"(4) CREDIT MULTIPLIERS.—

"(A) IN GENERAL.—Except as provided in subparagraph (B), the Commission shall issue—

"(i) not more than 2 Federal renewable electricity credits for each megawatt hour of renewable electricity generated in a

community that the Commission determines is an impacted community; and

"(ii) not more than 2 Federal renewable electricity credits for each megawatt hour of renewable electricity generated on Indian land.

"(B) ADJUSTMENT.—Except as provided in subparagraph (C), not later than January 1, 2023, and not less frequently than every 4 years thereafter, the Commission shall review the effect on the aggregate quantity of renewable electricity generated as a result of providing credit multipliers under this paragraph and shall, as necessary and after providing 1 year of notice, reduce the number of Federal renewable electricity credits issued under this paragraph per megawatt hour of renewable electricity generated by any given energy source or facility, but not below one, to ensure that the number is no higher than the Commission determines is necessary to incentivize incremental renewable energy generation in impacted communities and on Indian land.

"(C) FACILITIES PLACED IN SERVICE AFTER ENACTMENT.—

"(i) IN GENERAL.—For any renewable electricity generation facility placed in service after the date of enactment of this section, subparagraph (B) shall not apply for the first 10 years after the date on which the facility is placed in service.

"(ii) INITIAL PERIOD.—For each year during the 10-year period described in clause (i), the Commission shall issue to the facility the same number of Federal renewable electricity credits per megawatt hour generated as are issued to that facility in the year in which the facility is placed in service.

"(iii) SUBSEQUENT PERIOD.—After the 10-year period described in clause (i), the Commission shall issue Federal renewable electricity credits to the facility in accordance with subparagraph (B).

"(5) CREDITS BASED ON QUALIFIED HYDROPOWER.—For purposes of this subsection, the number of megawatt hours of renewable electricity generation from qualified hydropower shall be calculated—

"(A) based solely on the increase in average annual generation directly resulting from the efficiency improvements or capacity additions described in subsection (a)(5)(A); and

"(B) using the same water flow information used to determine a historic average annual generation baseline for the hydroelectric facility, as certified by the Commission.

"(6) GENERATION FROM MIXED RENEWABLE AND NONRENEWABLE RESOURCES.—If electricity is generated using both a renewable energy resource and an energy source that is not a renewable energy resource (such as cofiring of renewable biomass and fossil fuel), the Commission shall issue Federal renewable electricity credits based on the proportion of the electricity generated that is attributable to the renewable energy resource.

"(7) PROHIBITION AGAINST DOUBLE-COUNTING.—The Commission shall ensure that—

"(A) no Federal renewable electricity credit is used more than once for compliance with this section; and

"(B) except as provided in paragraph (4), not more than 1 Federal renewable electricity

credit is issued for any megawatt hour of renewable electricity generated.

''(8) TRADING.—The lawful holder of a Federal renewable electricity credit may—

''(A) sell, exchange, or transfer the credit;

''(B) submit the credit for compliance under subsection (b); or

''(C) submit the credit for retirement by the Commission.

''(9) BANKING.—

''(A) IN GENERAL.—A Federal renewable electricity credit may be submitted in satisfaction of the compliance obligation under subsection (b) for the compliance year in which the credit was issued or for any of the 3 immediately subsequent compliance years.

''(B) RETIREMENT.—The Commission shall retire any Federal renewable electricity credit that has not been retired by April 2 of the calendar year that is 3 years after the calendar year during which the credit was issued.

''(10) RETIREMENT.—The Commission shall retire a Federal renewable electricity credit immediately upon submission by the lawful holder of the

credit, whether in satisfaction of a compliance obligation under subsection (b) or for another reason.

''(f) ALTERNATIVE COMPLIANCE PAYMENTS.—

''(1) IN GENERAL.—A retail electricity supplier may satisfy the requirements of subsection (b) in whole or in part by submitting in accordance with this subsection, in lieu of each Federal renewable electricity credit that would otherwise be submitted, an alternative compliance payment equal to $50, adjusted for inflation on January 1 of each year following calendar year 2021, in accordance with regulations promulgated by the Commission.

''(2) PAYMENT TO STATE FUNDS.—

''(A) IN GENERAL.—Except as otherwise provided in this paragraph, payments made under this subsection shall be made directly to one or more States in which the retail electricity supplier sells electricity, in proportion to the portion of the retail electricity supplier's base quantity that is sold within each applicable State, if—

''(i) the payments are deposited directly into a fund of the State treasury established for that purpose; and

''(ii) the State uses the funds in accordance with paragraphs (3) and (4).

''(B) NONCOMPLIANCE.—If the Commission determines that a State is in substantial noncompliance with paragraph (3) or (4), the Commission shall direct that any future alternative compliance payments that would otherwise be paid to the State under this subsection shall instead be paid to the Commission and deposited in the Treasury.

''(3) STATE USE OF FUNDS.—As a condition of receipt of alternative compliance payments under this subsection, a State shall use the payments exclusively for—

''(A) deploying technologies that generate electricity from renewable energy resources; or

''(B) implementing cost-effective energy efficiency programs to achieve energy savings.

''(4) REPORTING.—

''(A) IN GENERAL.—As a condition of receipt of alternative compliance payments pursuant to this subsection, a State shall submit to the Commission an annual report, in accordance with regulations promulgated by the Commission, containing a full accounting of the use

of the payments, including a detailed description of the activities funded by the payments and demonstrating compliance with the requirements of this subsection.

''(B) DEADLINE.—A State shall submit a report under this paragraph—

''(i) not later than 1 year after the date on which the first alternative compliance payment is received; and

''(ii) every 1 year thereafter until all alternative compliance payments are expended.

''(g) INFORMATION COLLECTION.—The Commission may require any retail electricity supplier, renewable electricity generator, or any other entity that the Commission determines appropriate, to provide any information the Commission determines appropriate to carry out this section.

''(h) ENFORCEMENT AND JUDICIAL REVIEW.—

''(1) FAILURE TO SUBMIT CREDITS.—If any person fails to comply with the requirements of subsection (b) or (f) for a calendar year, the person shall be liable to pay to the Commission a civil penalty equal to the product obtained by multiplying—

''(A) double the alternative compliance payment calculated under subsection (f)(1) for such calendar year; and

''(B) the aggregate quantity of Federal renewable electricity credits or equivalent alternative compliance payments that the person failed to submit in violation of the requirements of subsections (b) and (f) for such calendar year.

''(2) ENFORCEMENT.—The Commission shall assess a civil penalty under paragraph (1) in accordance with the procedures described in section 31(d) of the Federal Power Act.

''(3) VIOLATION OF REQUIREMENT OF REGULATIONS OR ORDERS.—

''(A) IN GENERAL.—Any person who violates or fails or refuses to comply with any requirement of this section, other than a requirement of subsection (b) or (f), shall be subject to a civil penalty under section 316A(b) of the Federal Power Act.

''(B) ASSESSMENT.—The penalty under subparagraph (A) shall be assessed by the Commission in the same manner as in the case of

a violation referred to in section 316A(b) of that Act.

''(4) JUDICIAL REVIEW.—

''(A) IN GENERAL.—Any person aggrieved by a final action taken by the Commission under this section, other than the assessment of a civil penalty under paragraphs (1) through (3), may use the procedures for review described in section 313 of the Federal Power Act.

''(B) REFERENCE.—For purposes of this paragraph, references to an order in section 313 of that Act shall be considered to refer also to all other final actions of the Commission under this section other than the assessment of a civil penalty under paragraphs (1) through (3).

''(i) ADMINISTRATION.—Nothing in this section—

''(1) diminishes or qualifies any authority of a State, a political subdivision of a State, or an Indian Tribe—

''(A) to adopt or enforce any law or regulation respecting renewable electricity, including any law or regulation establishing requirements that are more stringent than those established

by this section, provided that no such law or regulation may relieve any person of any requirement otherwise applicable under this section; or

''(B) to regulate the acquisition and disposition of Federal renewable electricity credits by retail electricity suppliers within the jurisdiction of the State, political subdivision, or Indian Tribe, including the authority to require the retail electricity supplier to acquire and submit to the Commission for retirement Federal renewable electricity credits in excess of those submitted under this section; or

''(2) affects the application of or the responsibility for compliance with any other provision of law or regulation.''.

SEC. 3. CLARIFYING STATE AUTHORITY TO ADOPT RENEWABLE ENERGY INCENTIVES.

Section 210 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 824a–3) is amended by adding at the end the following:

''(o) CLARIFICATION OF STATE AUTHORITY TO ADOPT RENEWABLE ENERGY INCENTIVES.—

''(1) DEFINITION OF STATE-APPROVED PRODUCTION INCENTIVE PROGRAM.—In this subsection,

the term 'State-approved production incentive program' means a requirement imposed pursuant to State law or by a State regulatory authority acting within its authority under State law that an electric utility purchase renewable energy (as defined in section 609(a)) at a specified rate.

''(2) STATE AUTHORITY TO ADOPT RENEWABLE ENERGY INCENTIVES.—Notwithstanding any other provision of this Act or the Federal Power Act, a State law or State regulatory authority may set the rates for a sale of electricity by a facility generating renewable energy (as defined in section 609(a)) pursuant to a State-approved production incentive program under which the facility voluntarily participates in the State-approved production incentive program.''.

SEC. 4. GUIDELINES FOR DETERMINING QUALIFIED RENEWABLE BIOMASS.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) LIFECYCLE GREENHOUSE GAS EMISSIONS.—

(A) IN GENERAL.—The term ''lifecycle greenhouse gas emissions'' means the aggregate quantity of greenhouse gas emissions, adjusted to account for the relative global warming potential of the emissions relative to all greenhouse gas emissions.

(B) INCLUSIONS.—For purposes of subparagraph (A), the term ''greenhouse gas emissions'' includes—

(i) direct emissions; and

(ii) significant indirect emissions, including from—

(I) land use changes and temporal changes in forest carbon sequestration;

(II) biomass harvests, regrowth, and avoided decomposition related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution; and

(III) feedstock generation or extraction through the distribution and delivery of the finished fuel to the ultimate consumer.

(b) GUIDELINES.—Not later than 1 year after the date of enactment of this Act, the Administrator shall, recognizing the recommendations of, and coordinating with, the Scientific Advisory Board of the Environmental Protection Agency regarding the accounting of biogenic carbon dioxide emissions, and after notice and public comment, issue guidelines for calculating lifecycle greenhouse gas emissions for renewable biomass (as that term is defined in section 610(a) of the Public Utility Regulatory Policies Act of 1978, as added by this Act).

SEC. 5. ENERGY EFFICIENCY RESOURCE STANDARD FOR RETAIL ELECTRICITY AND NATURAL GAS SUPPLIERS.

(a) IN GENERAL.—Title VI of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.) is further amended by adding at the end the following:

"SEC. 611. FEDERAL ENERGY EFFICIENCY RESOURCE STANDARD FOR RETAIL ELECTRICITY AND NATURAL GAS SUPPLIERS.

''(a) DEFINITIONS.—In this section:

''(1) AFFILIATE.—The term 'affiliate' when used in relation to a person, means another person that owns or controls, is owned or controlled by, or is under common ownership control with, that per-

son, as determined under regulations promulgated by the Secretary.

''(2) ASHRAE, ANSI, AND IESNA.—The terms 'ASHRAE', 'ANSI', and 'IESNA' mean the American Society of Heating, Refrigerating and Air Conditioning Engineers, the American National Standards Institute, and the Illuminating Engineering Society of North America, respectively.

''(3) BASE QUANTITY.—

''(A) IN GENERAL.—The term 'base quantity', with respect to a retail electricity supplier or retail natural gas supplier, means, for each calendar year for which a performance standard is established under subsection (c), the average annual quantity of electricity delivered by the retail electricity supplier to electric consumers, or quantity of natural gas delivered by the retail natural gas supplier to natural gas consumers, during the 3 calendar years immediately preceding the year that compliance is required under subsection (c)(1).

''(B) EXCLUSION.—The term 'base quantity', with respect to a retail natural gas supplier, does not include natural gas delivered for purposes of electricity generation.

''(4) CHP SAVINGS.—The term 'CHP savings' means—

''(A) CHP system savings from a combined heat and power system that commences operation after the date of enactment of this section; and

''(B) the increase in CHP system savings from upgrading or replacing, after the date of enactment of this section, a combined heat and power system that commenced operation on or before the date of enactment of this section.

''(5) CHP SYSTEM SAVINGS.—The term 'CHP system savings' means the electric output, and the electricity saved due to the mechanical output, of a combined heat and power system, adjusted to reflect any increase in fuel consumption by that system as compared to the fuel that would have been required to produce an equivalent useful thermal energy output in a separate thermal-only system, as determined in accordance with regulations promulgated by the Secretary.

''(6) CODES AND STANDARDS SAVINGS.—The term 'codes and standards savings' means a reduction in electricity or natural gas consumption as a result of the adoption and implementation, after the

date of enactment of this section, of new or revised appliance and equipment efficiency standards or building energy codes.

''(7) COMBINED HEAT AND POWER SYSTEM.—The term 'combined heat and power system' means a system that uses the same energy source both for the generation of electrical or mechanical power and the production of steam or another form of useful thermal energy, if—

''(A) the system meets any requirements relating to efficiency and other operating characteristics that the Secretary promulgates by regulation; and

''(B) the net wholesale sales of electricity by a facility does not exceed 50 percent of total annual electric generation by the facility.

''(8) COST-EFFECTIVE.—The term 'cost-effective', with respect to an energy efficiency program, means that the program achieves a net present value of economic benefits over the life of the implemented measures, both directly to the energy consumer and to the economy, that is greater than the net present value of the cost of the program over the life of the program, both directly to the energy consumer and to the economy, using the societal benefit-cost test

calculated using the lower of a utility weighted average cost of capital or a social discount rate of 3 percent.

''(9) CUSTOMER FACILITY SAVINGS.—The term 'customer facility savings' means a reduction in electricity, or natural gas consumption, including waste heat energy savings, at a facility of an electricity consumer served by a retail electricity supplier or a natural gas consumer served by a natural gas supplier, as compared to—

''(A) in the case of new equipment that replaces existing equipment with remaining useful life—

''(i) consumption of the existing equipment for the remaining useful life of the equipment; and

''(ii) thereafter, consumption by new equipment of average efficiency of the same equipment type;

''(B) in the case of new equipment other than new equipment described in subparagraph (A), consumption by new equipment of average efficiency of the same equipment type;

''(C) in the case of consumption, other than consumption described in subparagraphs

(A) and (B), at an existing facility, consumption at the facility during a base period of not less than 1 year; and

''(D) in the case of consumption, other than consumption described in subparagraphs (A) and (B), at a new facility, consumption at a reference new facility of average efficiency for new facilities of the same type.

''(10) ELECTRICITY SAVINGS.—The term 'electricity savings' means reductions in electricity consumption or losses, as determined in accordance with regulations promulgated by the Secretary, that—

''(A) are achieved through measures implemented after the date of enactment of this section;

''(B) are additional to business-as-usual customer purchase practices and distribution system efficiency;

''(C) the retail electricity supplier claiming or transferring the electricity savings has played a significant role in achieving;

''(D) occur in the service territory of the retail electricity supplier claiming or transferring the electricity savings; and

''(E) are limited to—

''(i) customer facility savings of electricity, adjusted to reflect any associated increase in fuel consumption at the facility;

''(ii) reductions in distribution system losses of electricity achieved by a retail electricity supplier, as compared to losses that would occur with new distribution system equipment of average efficiency;

''(iii) CHP savings;

''(iv) codes and standards savings of electricity; and

''(v) fuel-switching energy savings that results in net savings of electricity.

''(11) FUEL-SWITCHING ENERGY SAVINGS.—

''(A) IN GENERAL.—The term 'fuel-switching energy savings' means net energy savings, calculated in accordance with subparagraph (B), from consumer switches from 1 energy source to another, as determined in accordance with regulations promulgated by the Secretary.

''(B) CALCULATION.—For purposes of calculating net energy savings under subparagraph (A)—

''(i) electricity consumption shall be evaluated based on the average additional quantity of fuel burned at power plants to supply each additional kilowatt-hour of electricity consumption in the region;

''(ii) electricity and natural gas consumption shall include losses in the transmission and distribution systems; and

''(iii) fuel-switching that does not result in net cost savings to the consumer shall not be counted.

''(12) NATURAL GAS SAVINGS.—The term 'natural gas savings' means reductions in natural gas consumption or losses, as determined in accordance with regulations promulgated by the Secretary, that—

''(A) are achieved through measures implemented after the date of enactment of this section;

''(B) are additional to business-as-usual customer purchase practices and distribution system efficiency;

''(C) the retail natural gas supplier claiming or transferring the natural gas savings has played a significant role in achieving;

''(D) occur in the service territory of the retail natural gas supplier claiming or transferring the natural gas savings; and

''(E) are limited to—

''(i) customer facility savings of natural gas, adjusted to reflect any associated increase in electricity consumption or consumption of other fuels at the facility;

''(ii) reductions in leakage, operational losses, and consumption of natural gas to operate a gas distribution system, achieved by a retail natural gas supplier, as compared to similar leakage, losses, and consumption during a base period of not less than 1 year;

''(iii) codes and standards savings of natural gas; and

''(iv) fuel-switching energy savings that results in net savings of natural gas.

''(13) PERFORMANCE STANDARD.—The term 'performance standard' means a standard—

''(A) established for a calendar year for cumulative electricity savings or cumulative natural gas savings that is expressed as a percentage of base quantity; and

''(B) for each of calendar years 2021 through 2035, that is labeled as cumulative electricity savings percentage or cumulative natural gas savings, as applicable, in the table under subsection (c)(2).

''(14) POWER POOL.—The term 'power pool' means an association of two or more interconnected electric systems that have entered into an agreement to coordinate operations and planning for improved reliability and efficiencies, including a Regional Transmission Organization or an Independent System Operator, as determined by the Secretary.

''(15) REPORTING PERIOD.—The term 'reporting period' means—

''(A) calendar years 2021 through 2023; and

''(B) each successive 2-calendar-year period thereafter.

''(16) RETAIL ELECTRICITY SUPPLIER.—

''(A) IN GENERAL.—The term 'retail electricity supplier' means, for any calendar year, an electric utility that delivered not fewer than 1,000,000 megawatt hours of electricity to electric consumers for purposes other than resale during the preceding calendar year.

''(B) INCLUSIONS AND LIMITATIONS.—For purposes of determining whether an electric utility qualifies as a retail electricity supplier under subparagraph (A)—

''(i) deliveries by any affiliate of the electric utility to electric consumers for purposes other than resale shall be considered to be deliveries by the electric utility; and

''(ii) deliveries by any electric utility to a lessee, tenant, or affiliate of the electric utility shall not be considered to be deliveries to electric consumers.

''(17) RETAIL NATURAL GAS SUPPLIER.—

''(A) IN GENERAL.—The term 'retail natural gas supplier' means, for any given calendar year, a local distribution company (as defined in section 2 of the Natural Gas Policy Act of 1978), that delivered to natural gas consumers more than 5,000,000,000 cubic feet of natural gas for purposes other than resale during the preceding calendar year.

''(B) INCLUSIONS AND LIMITATIONS.—For purposes of determining whether a person

qualifies as a retail natural gas supplier under subparagraph (A)—

"(i) deliveries of natural gas by any affiliate of a local distribution company to consumers for purposes other than resale shall be considered to be deliveries by the local distribution company; and

"(ii) deliveries of natural gas to a lessee, tenant, or affiliate of a local distribution company shall not be considered to be deliveries to natural gas consumers.

"(18) STATE REGULATORY AUTHORITY.—The term 'State regulatory authority' means any State agency which has ratemaking authority with respect to—

"(A) the sale of natural gas by any gas utility (other than by such State agency); or

"(B) the sale of electric energy by any electric utility (other than such State agency), and in the case of an electric utility with respect to which the Tennessee Valley Authority has ratemaking authority, such term means the Tennessee Valley Authority.

"(19) THIRD-PARTY EFFICIENCY PROVIDER.—The term 'third-party efficiency provider' means any

retailer, building owner, energy service company, financial institution, or other commercial, industrial, or nonprofit entity that is capable of providing electricity savings or natural gas savings in accordance with subsections (d) and (e).

''(20) WASTE HEAT ENERGY SAVINGS.—

''(A) IN GENERAL.—The term 'waste heat energy savings' means a reduction in electricity or natural gas consumption that results from a modification of an industrial or commercial system that commenced operation before the date of enactment of this section, in order to recapture electrical, mechanical, or thermal energy that would otherwise be wasted, as determined in accordance with regulations promulgated by the Secretary.

''(B) INCLUSION.—Waste heat energy savings shall be included as part of customer facility savings.

''(b) ESTABLISHMENT.—

''(1) REGULATIONS.—Not later than 1 year after the date of enactment of this section, the Secretary shall, by regulation, establish a program to implement and enforce the requirements of this section, including by—

''(A) establishing measurement and verification procedures and standards under subsection (e);

''(B) establishing requirements under which retail electricity suppliers and retail natural gas suppliers shall—

''(i) demonstrate, document, and report the compliance of the retail electricity suppliers and retail natural gas suppliers with the performance standards under subsection (c); and

''(ii) estimate the impact of the performance standards on current and future electricity and natural gas consumption in the service territories of the suppliers; and

''(C) establishing requirements governing applications for, and implementation of, State programs under subsection (g).

''(2) COORDINATION WITH STATE PROGRAMS.—In establishing and implementing this section, the Secretary shall, to the maximum extent practicable, preserve the integrity and incorporate best practices of existing State energy efficiency programs.

''(c) PERFORMANCE STANDARDS.—

"(1) COMPLIANCE OBLIGATION.—Not later than May 1 of the calendar year immediately following each reporting period—

"(A) each retail electricity supplier shall submit to the Secretary a report, in accordance with regulations promulgated by the Secretary, demonstrating that such retail electricity supplier has achieved cumulative electricity savings (adjusted to account for any attrition of savings from measures implemented in prior years) in each calendar year of such reporting period that are equal to or greater than the applicable performance standard; and

"(B) each retail natural gas supplier shall submit to the Secretary a report, in accordance with regulations promulgated by the Secretary, demonstrating that the retail natural gas supplier has achieved cumulative natural gas savings from measures (adjusted to account for any attrition of savings measures implemented in prior years) in each calendar year of such reporting period that are equal to or greater than the applicable performance standard.

"(2) PERFORMANCE STANDARDS FOR 2021 THROUGH 2035.—For each of calendar years 2021

through 2035, the performance standards are as follows:

"Calendar Year	Cumulative Electricity Savings Percentage	Cumulative Natural Gas Savings Percentage
2021	1.00	0.50
2022	2.00	1.25
2023	3.00	2.00
2024	4.25	3.00
2025	5.50	4.00
2026	7.00	5.00
2027	8.50	6.00
2028	10.00	7.00
2029	11.50	8.00
2030	13.00	9.00
2031	14.75	10.00
2032	16.50	11.00
2033	18.25	12.00
2034	20.00	13.00
2035	22.00	14.00

"(3) SUBSEQUENT YEARS.—

"(A) CALENDAR YEARS 2036 THROUGH 2045.—Not later than December 31, 2033, the Secretary shall promulgate regulations establishing performance standards for each of calendar years 2036 through 2045.

"(B) SUBSEQUENT EXTENSIONS.—Except as provided in subparagraph (A), not later than the last day of the penultimate reporting period for which performance standards have been es-

tablished under this paragraph, the Secretary shall promulgate regulations establishing performance standards for the 10-calendar-year period following the last calendar year for which performance standards previously were established.

''(C) REQUIREMENTS.—The Secretary shall establish performance standards under this paragraph at levels reflecting the maximum achievable level of cost-effective energy efficiency potential, taking into account—

''(i) cost-effective energy savings achieved by leading retail electricity suppliers and retail natural gas suppliers;

''(ii) opportunities for new codes and standards savings;

''(iii) technology improvements; and

''(iv) other indicators of cost-effective energy efficiency potential.

''(D) MINIMUM PERCENTAGE.—In no case shall a performance standard established under this paragraph for any calendar year be less than the applicable performance standard for calendar year 2035 (including any increase in

the standard for calendar year 2035 established pursuant to paragraph (4)).

''(4) MIDCOURSE REVIEW AND ADJUSTMENT OF PERFORMANCE STANDARDS.—

''(A) IN GENERAL.—Not later than December 31, 2029, and at 10-year intervals thereafter, the Secretary shall—

''(i) review the most recent performance standards established under paragraph (2) or (3); and

''(ii) increase the performance standards by regulation if the Secretary determines that additional cost-effective energy efficiency potential is achievable, taking into account the requirements described in paragraph (3)(C).

''(B) LEAD TIME.—If the Secretary revises performance standards under this paragraph, the regulations shall provide adequate lead time to ensure that compliance with the increased performance standards is feasible.

''(5) DELAY OF SUBMISSION FOR FIRST REPORTING PERIOD.—

''(A) IN GENERAL.—Notwithstanding paragraphs (1) and (2), for the first reporting

period, the Secretary may accept a request from a retail electricity supplier or a retail natural gas supplier to delay the required submission of documentation of all or part of the required savings for up to 2 years.

"(B) PLAN FOR COMPLIANCE.—The request for delay under subparagraph (A) shall include a plan for coming into full compliance by the end of the second reporting period.

"(6) APPLYING UNUSED SAVINGS TO FUTURE YEARS.—If electricity savings or natural gas savings achieved by a retail electricity supplier or retail natural gas supplier in a year exceed the applicable performance standard specified under this subsection, any savings in excess of the performance standard may be applied toward performance standards specified for any of the 2 immediately subsequent compliance years.

"(d) TRANSFERS OF ELECTRICITY OR NATURAL GAS SAVINGS.—

"(1) BILATERAL CONTRACTS FOR SAVINGS TRANSFERS.—Subject to the limitations of this subsection, a retail electricity supplier or retail natural gas supplier may use electricity savings or natural gas savings purchased pursuant to a bilateral con-

tract from another retail electricity supplier or retail natural gas supplier, a State, or a third-party efficiency provider to meet the applicable performance standard under subsection (c).

''(2) REQUIREMENTS.—Electricity savings or natural gas savings purchased and used for compliance under this subsection shall be—

''(A) measured and verified in accordance with subsection (e);

''(B) reported in accordance with subsection (c); and

''(C) achieved within the same State as is served by the retail electricity supplier or retail natural gas supplier.

''(3) EXCEPTION.—Notwithstanding paragraph (2)(C), a State regulatory authority may authorize a retail electricity supplier or a retail natural gas supplier regulated by the State regulatory authority to purchase savings achieved in a different State, if—

''(A) the savings are achieved within the same power pool; and

''(B) the State regulatory authority that regulates the purchaser oversees the measurement and verification of the savings pursuant to

the procedures and standards applicable in the State in which the purchaser is located.

''(4) REGULATORY APPROVAL.—Nothing in this subsection limits or affects the authority of a State regulatory authority to require a retail electricity supplier or retail natural gas supplier that is regulated by the State regulatory authority to obtain the authorization or approval of the State regulatory authority of a contract for transfer of electricity savings or natural gas savings under this subsection.

''(5) LIMITATIONS.—To optimize the achievement of cost-effective efficiency potential, the Secretary may prescribe such limitations as the Secretary determines appropriate with respect to the proportion of the compliance obligation of a retail electricity or natural gas supplier under the applicable performance standards under subsection (c) that may be met using electricity savings or natural gas savings that are purchased under this subsection.

''(e) EVALUATION, MEASUREMENT, AND VERIFICATION OF SAVINGS.—

''(1) REGULATIONS.—The regulations promulgated pursuant to subsection (b) shall—

''(A) be based on—

"(i) the Uniform Methods Project of the Department of Energy;

"(ii) the National Standard Practice Manual for Assessing the Cost-Effectiveness of Energy Efficiency Resources, developed by the National Efficiency Screening Project; and

"(iii) other best practices recognized in the energy efficiency industry; and

"(B) include—

"(i) procedures and standards for evaluating, measuring, and verifying electricity savings and natural gas savings that count towards the performance standards established under subsection (c) that—

"(I) specify the types of energy efficiency and energy conservation measures that may be counted;

"(II) require that energy consumption estimates for customer facilities or portions of facilities in the applicable base and current years be adjusted, as appropriate, to account for changes in weather, level of production, and building area;

''(III) do not prevent overall load growth due to beneficial electrification;

''(IV) account for the useful life of energy efficiency and energy conservation measures;

''(V) allow for savings from a program to be estimated based on extrapolation from a representative sample of participating customers;

''(VI) include procedures for calculating and documenting CHP savings, fuel-switching energy savings, and waste heat energy savings;

''(VII) establish methods for calculating codes and standards energy savings, including—

''(aa) the use of verified compliance rates;

''(bb) requiring that the baseline for calculating savings from building energy codes shall be the more stringent of—

''(AA) the 2018 International Energy Conserva-

tion Code for residential buildings, or the ASHRAE/ ANSI/ IESNA Standard 90.1–2016 for commercial buildings; or

''(BB) the applicable State building code in effect on the date of enactment of this section; and

''(cc) requiring that the baseline for calculating savings from appliance and equipment standards shall be the average efficiency of new appliances and equipment in the applicable one or more categories prior to the adoption and implementation of the new standard;

''(VIII) include procedures for calculating and documenting—

''(aa) customer facility savings and reductions in distribution system losses of electricity and natural gas that are achieved as a result of smart grid deploy-

ment, as described in section 1301 of the Energy Independence and Security Act of 2007; and

''(bb) reductions in natural gas distribution system losses attributable to pipeline repair and replacement programs;

''(IX) count only measures and savings that are additional to business-as-usual customer purchase practices;

''(X) ensure that the retail electricity supplier or retail natural gas supplier claiming the electricity savings or natural gas savings, including State and local codes and standards savings, has played a significant role in achieving the savings (including through the activities of a designated agent of the supplier);

''(XI) avoid double-counting of savings used for compliance with this section, including transferred savings;

''(XII) include electricity savings or natural gas savings from programs administered by retail electricity suppliers or natural gas suppliers that are funded by Federal, State, or other sources, unless the funding source specifies otherwise;

''(XIII) credit large customer self-directed electricity savings or natural gas savings to the retail electricity supplier or retail natural gas supplier if the large customer receives incentives or rate reductions from the retail electricity supplier or retail natural gas supplier for self-directed energy efficiency improvements;

''(XIV) include guidance, as appropriate, for additional alternative approaches to evaluate electricity savings and natural gas savings for large commercial and industrial customers in energy-intensive industries that are subject to international competition;

''(XV) include procedures for counting electricity savings and nat-

ural gas savings achieved by solar heating and cooling technologies, solar light pipe technology, geothermal heat pumps, and other technologies utilizing renewable resources that do not produce electricity or gaseous fuel and reduce on-site energy consumption;

''(XVI) include procedures for counting electricity savings and natural gas savings achieved by weatherization measures, such as installing mechanical insulation, repairing or replacing heating and cooling systems, repairing or replacing windows and doors, performing air sealing, and replacing lights and appliances with more energy efficient models;

''(XVII) include procedures for counting electricity savings and natural gas savings achieved from increased utilization of mechanical insulation for new, retrofit, and maintenance construction for commercial, industrial, public, and nonprofit buildings and facilities;

''(XVIII) in any State in which the State regulatory authority has designated 1 or more entities to administer electric ratepayer-funded efficiency programs approved by the State regulatory authority, provide that electricity savings and natural gas savings achieved through those programs shall be distributed proportionally among retail electricity suppliers and retail natural gas suppliers;

''(XIX) include guidance for retail electricity suppliers and retail natural gas suppliers to calculate and document business-as-usual consumption projections;

''(XX) include guidance for estimating savings using information from the database established under paragraph (3) based on similar measures and programs in other settings with appropriate adjustments, as necessary; and

"(XXI) incorporate advances in the science of policy evaluation, such as the use of—

"(aa) randomized control trials;

"(bb) other experimental and quasi-experimental approaches; and

"(cc) large data sets and machine learning techniques; and

"(ii) procedures and standards for third-party verification of reported electricity savings or natural gas savings.

"(2) NATIONAL ACADEMY OF SCIENCES STUDY.—Not later than 180 days after the date of enactment of this section, the Secretary shall offer to enter into an agreement with the National Academy of Sciences, under which the Academy shall—

"(A) evaluate existing state-of-the-art methods for evaluating energy efficiency policies and measures;

"(B) identify approaches in program evaluation literature that may be brought into the energy efficiency domain, including—

"(i) randomized control trials and other experimental or quasi-experimental approaches;

"(ii) control of confounding factors;

"(iii) longitudinal studies;

"(iv) assessments by neutral arbiters; and

"(v) disclosure of data for replication; and

"(C) not later than 18 months after the date of enactment of this section, publish a report that includes—

"(i) a description of the evaluation under subparagraph (A);

"(ii) a description of the approaches identified under subparagraph (B); and

"(iii) recommendations for advancing and adopting rigorous state-of-the-art methods for evaluating energy efficiency policies and measures.

"(3) ENERGY EFFICIENCY PROGRAM EVALUATION DATABASE.—

"(A) IN GENERAL.—The Secretary shall establish and maintain a searchable public database, accessible on the website of the Depart-

ment of Energy, that contains a list of randomized control trials and other experimental or quasi-experimental evaluations of energy efficiency programs.

''(B) REQUIREMENTS.—Each trial or evaluation on the list described in subparagraph (A) shall include, at a minimum—

''(i) the State in which the trial or evaluation was conducted;

''(ii) the type of trial or evaluation conducted;

''(iii) the type of program evaluated;

''(iv) an abstract or summary of the program evaluated;

''(v) a summary of the trial or evaluation methodology;

''(vi) the revealed energy savings from the trial or evaluation; and

''(vii) to the extent practicable, the underlying data used to conduct the trial or evaluation.

''(f) ENFORCEMENT AND JUDICIAL REVIEW.—

''(1) REVIEW OF RETAIL SUPPLIER REPORTS.—

''(A) IN GENERAL.—The Secretary shall review each report submitted to the Secretary

by a retail electricity supplier or retail natural gas supplier under subsection (c) to verify that the applicable performance standards under subsection (c) have been met.

''(B) EXCLUSION.—In determining compliance with the applicable performance standards under subsection (c), the Secretary shall exclude reported electricity savings or natural gas savings that are not adequately demonstrated and documented, in accordance with the regulations promulgated under this section.

''(2) PENALTY FOR FAILURE TO DOCUMENT ADEQUATE SAVINGS.—If a retail electricity supplier or a retail natural gas supplier fails to demonstrate compliance with an applicable performance standard under subsection (c), or to pay to the State an applicable alternative compliance payment under subsection (g), the Secretary shall assess against the retail electricity supplier or retail natural gas supplier a civil penalty in an amount equal to, as adjusted for inflation in accordance with such regulations as the Secretary may promulgate—

''(A) $100 per megawatt hour of electricity savings or alternative compliance payment that

the retail electricity supplier failed to achieve or make, respectively; or

"(B) $10 per million Btu of natural gas savings or alternative compliance payment that the retail natural gas supplier failed to achieve or make, respectively.

"(3) OFFSETTING STATE PENALTIES.—The Secretary shall reduce the amount of any penalty under paragraph (2) by the amount paid by the relevant retail electricity supplier or retail natural gas supplier to a State for failure to comply with the requirements of a State energy efficiency resource standard during the same compliance period, if the State standard—

"(A) is comparable in type to the Federal performance standard established under this section; and

"(B) is more stringent than the applicable performance standard under subsection (c).

"(4) USE OF PAYMENTS.—

"(A) DEFINITION OF COVERED RATE.—In this paragraph, the term 'covered rate' means the proportion that—

"(i) the amount of penalty payments made by retail electricity suppliers and

natural gas suppliers in a State under paragraph (2); bears to

''(ii) the total amount of penalty payments collected by the Secretary under that paragraph.

''(B) USE OF PAYMENTS.—Penalty payments collected under paragraph (2) by the Secretary shall be—

''(i) provided to each State at the covered rate for the State; and

''(ii) used by the State to implement cost-effective energy efficiency programs that—

''(I) to the maximum extent practicable, achieve electricity savings and natural gas savings in the State sufficient to make up the deficit associated with the penalty payments; and

''(II) are measured and verified in accordance with the applicable procedures and standards established under subsection (e).

''(5) ENFORCEMENT PROCEDURES.—The Secretary shall assess a civil penalty, as provided under paragraph (2), in accordance with the procedures

described in section 333(d) of the Energy Policy and Conservation Act.

''(6) JUDICIAL REVIEW.—

''(A) IN GENERAL.—Any person adversely affected by a final action taken by the Secretary under this section, other than the assessment of a civil penalty, may use the procedures for review described in section 336(b) of the Energy Policy and Conservation Act.

''(B) REFERENCE.—In this paragraph, references to a rule in section 336(b) of the Energy Policy and Conservation Act shall be considered to refer also to all other final actions of the Secretary under this section other than the assessment of a civil penalty.

''(g) STATE ADMINISTRATION.—

''(1) IN GENERAL.—Upon receipt of an application from the Governor of a State (including the Mayor of the District of Columbia), the Secretary may authorize the State to implement a State energy efficiency program in lieu of the Federal program established under subsection (b) if the Secretary determines that the requirements of such State program meet or exceed the requirements of such Federal program, including—

''(A) achieving electricity savings and natural gas savings that are equal to or greater than savings required under the applicable performance standards established under subsection (c);

''(B) reviewing reports and verifying electricity savings and natural gas savings achieved in the State (including savings transferred from outside the State); and

''(C) if applicable, collecting any alternative compliance payments under paragraph (4) and using the payments to implement cost-effective efficiency programs.

''(2) SECRETARIAL DETERMINATION.—Not later than 180 days after the date on which a complete application is received by the Secretary under this subsection, the Secretary after public notice and opportunity for comment shall determine whether to approve or disapprove such application.

''(3) ALTERNATIVE MEASUREMENT AND VERIFICATION PROCEDURES AND STANDARDS.—As part of an application pursuant to paragraph (1), a State may request to use alternative measurement and verification procedures and standards from the procedures and standards described in subsection

(e), if the State demonstrates that the alternative procedures and standards provide a level of accuracy of measurement and verification that are at least equivalent to the Federal procedures and standards under subsection (e).

''(4) ALTERNATIVE COMPLIANCE PAYMENTS.—

''(A) IN GENERAL.—As part of an application submitted under paragraph (1), a State may permit retail electricity suppliers or retail natural gas suppliers to pay to the State, by not later than May 1 of the calendar year immediately following the applicable reporting period, an alternative compliance payment in an amount equal to, as adjusted for inflation in accordance with such regulations as the Secretary may promulgate, not less than—

''(i) $50 per megawatt hour of electricity savings needed to make up any deficit in achieving electricity savings that would otherwise be required under the applicable performance standard established under subsection (c); or

''(ii) $5 per million Btu of natural gas savings needed to make up any deficit in achieving natural gas savings that would

otherwise be required under the applicable performance standard established under subsection (c).

''(B) USE OF PAYMENTS.—Alternative compliance payments collected by a State under subparagraph (A) shall be used by the State to implement the State program authorized under this section and to implement cost-effective energy efficiency programs that—

''(i) to the maximum extent practicable, achieve electricity savings and natural gas savings in the State sufficient to make up the deficit associated with the alternative compliance payments; and

''(ii) can be measured and verified in accordance with the applicable procedures and standards under subsection (e) or paragraph (3), as applicable.

''(5) REVIEW OF STATE PROGRAM.—

''(A) PERIODIC REVIEW.—Every 2 years, the Secretary shall review State programs authorized under this section in approximately ½ of the States with such authorized State programs, so that each such State program shall be reviewed at least every 4 years.

''(B) REPORT.—To facilitate review under subparagraph (A), the Secretary may require a State to submit a report demonstrating the State program authorized under this section meets the requirements of this section, including—

''(i) reports submitted by retail electricity suppliers and retail natural gas suppliers to the State demonstrating compliance with applicable requirements;

''(ii) the impact of applicable requirements on projected electricity and natural gas demand within the State;

''(iii) an accounting of the use of alternative compliance payments by the State and the resulting electricity savings and natural gas savings achieved; and

''(iv) any other information that the Secretary determines appropriate.

''(C) REVIEW UPON PETITION.—Notwithstanding subparagraph (A), upon receipt of a public petition containing credible allegation of substantial deficiencies of a State program authorized under this section, the Secretary shall promptly re-review the State program.

"(D) DEFICIENCIES.—

"(i) IN GENERAL.—In completing a review of a State program authorized under this section, if the Secretary finds deficiencies, the Secretary shall—

"(I) notify the State of the deficiencies;

"(II) direct the State to correct the deficiencies; and

"(III) require the State to report to the Secretary on progress made by not later than 180 days after the date on which the State receives notice under subclause (I).

"(ii) SUBSTANTIAL DEFICIENCIES.—If the deficiencies are substantial, the Secretary shall—

"(I) disallow the reported electricity savings or natural gas savings that the Secretary determines are not credible due to deficiencies;

"(II) re-review the State program 2 years after the date on which the original review was completed; and

"(III) if substantial deficiencies remain uncorrected after the review provided for under subclause (II), revoke the authorization for the State to implement a State program under this section.

"(6) CALLS FOR REVISION OF STATE APPLICATIONS.—As a condition of maintaining the authorization to implement a State program under this section, the Secretary may require the State to submit a revised application under paragraph (1) if the Secretary has—

"(A) established new or revised performance standards under subsection (c);

"(B) promulgated new or substantially revised measurement and verification procedures and standards under subsection (e); or

"(C) otherwise substantially revised the Federal program established under this section.

"(h) INFORMATION AND REPORTS.—In accordance with section 13 of the Federal Energy Administration Act of 1974, the Secretary may require any retail electricity supplier, retail natural gas supplier, third-party efficiency provider, or any other entity that the Secretary determines

appropriate, to provide any information the Secretary determines appropriate to carry out this section.

''(i) COST RECOVERY, FIXED COST RECOVERY, AND SHAREHOLDER INCENTIVES.—Each State regulatory authority is encouraged to review the rules and regulations of the State regulatory authority to ensure that utilities under its jurisdiction can—

''(1) recover the direct costs of energy efficiency programs;

''(2) fully recover authorized fixed costs, including lost margins from lower annual sales due to energy efficiency programs; and

''(3) earn an incentive for shareholders if the energy efficiency standards are achieved.

''(j) STATE LAW.—Nothing in this section diminishes or qualifies any authority of a State or political subdivision of a State to adopt or enforce any law or regulation respecting electricity savings or natural gas savings, including any law or regulation establishing energy efficiency requirements that are more stringent than those under this section, except that no State law or regulation shall relieve any person of any requirement otherwise applicable under this section.''.

SEC. 6. PROGRAM REVIEW.

(a) NATIONAL ACADEMY OF SCIENCES REVIEW.—The Secretary of Energy shall enter into a contract with the National Academy of Sciences under which the National Academy of Sciences shall, not later than July 1, 2025, and every 10 years thereafter, submit to Congress, the Federal Energy Regulatory Commission, and the Secretary of Energy a comprehensive evaluation of the implementation (including outcomes) of sections 610 and 611 of the Public Utility Regulatory Policies Act of 1978 (as added by this Act), including—

(1) an evaluation of the effectiveness of implementation of such sections, including the specific design elements used in increasing the efficiency of retail natural gas and electricity distribution and consumption and increasing the deployment of renewable electricity capacity;

(2) the opportunities for additional technologies and sources of efficiency and renewable electricity that have emerged since the date of enactment of this Act;

(3) the impact of implementation of such sections on the reliability of electricity and natural gas supply;

(4) the net benefits or costs of the implementation of such sections to the United States and the States, including—

(A) the effects on electricity and natural gas demand and prices;

(B) the economic development benefits of investment;

(C) environmental costs and benefits;

(D) the impacts on public health and health care costs; and

(E) avoided costs related to environmental and congestion mitigation investments that otherwise would have been required;

(5) an assessment of the benefits and costs of increasing the performance standards established under section 611(c) of the Public Utility Regulatory Policies Act of 1978 (as added by this Act);

(6) the feasibility, advantages, and disadvantages of alternative models for demonstrating compliance with a Federal energy efficiency resource standard, including—

(A) establishing a national trading system for energy efficiency credits; or

(B) demonstrating compliance through reductions in the projected amount of electricity

and natural gas delivered by retail electricity suppliers and retail natural gas suppliers, rather than on measured and verified electricity savings and natural gas savings; and

(7) recommendations regarding potential changes to implementing such sections, including changes to regulations and procedures, or to related public policies.

(b) RECOMMENDATIONS TO CONGRESS.—Not later than January 1, 2026, and every 10 years thereafter, the Secretary of Energy shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report making recommendations for modifications and improvements to implementation of sections 610 and 611 of the Public Utility Regulatory Policies Act of 1978 (as added by this Act), including an explanation of the inconsistencies, if any, between the recommendations of the Secretary of Energy and the recommendations included in the most recent evaluation by the National Academy of Sciences under subsection (a).

SEC. 7. CONFORMING AMENDMENT.

The table of contents of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. prec. 2601) is amended

by adding at the end of the items relating to title VI the following:

○