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116TH CONGRESS
2D SESSION

# H. R. 7516

To advance innovation in and deployment of zero-emission electricity technology, and for other purposes.

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IN THE HOUSE OF REPRESENTATIVES

JULY 9, 2020

Ms. DEGETTE (for herself, Mr. HUFFMAN, and Mr. PETERS) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Science, Space, and Technology, Ways and Means, Transportation and Infrastructure, and Education and Labor, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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# A BILL

To advance innovation in and deployment of zero-emission electricity technology, 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; TABLE OF CONTENTS.**

(a) SHORT TITLE.—This Act may be cited as the ''Clean Energy Innovation and Deployment Act of 2020''.

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

# TITLE I—INVESTMENT IN CLEAN ENERGY TECHNOLOGY INNOVATION

**SEC. 100. PURPOSE.**

The purpose of this title is to employ a wide range of measures to bring promising clean energy technologies to the point of commercial-availability, including through the activities of a Clean Energy Deployment Administration.

## Subtitle A—Clean Energy Deployment Administration

**SEC. 101. DEFINITIONS.**

In this subtitle:

(1) ADMINISTRATION.—The term ''Administration'' means the Clean Energy Deployment Administration established by section 103.

(2) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Administration.

(3) ADVISORY COUNCIL.—The term ''Advisory Council'' means the Energy Technology Advisory Council of the Administration.

(4) BREAKTHROUGH TECHNOLOGY.—The term ''breakthrough technology'' means a clean energy technology that—

(A) presents a significant opportunity to advance the goals developed by the Secretary under section 102, as assessed under the methodology established by the Advisory Council; and

(B) has not been determined by the Secretary to be commercially ready.

(5) CLEAN ENERGY TECHNOLOGY.—The term ''clean energy technology'' means a technology related to the production, use, transmission, storage, control, or conservation of energy that will contribute to the stabilization of the climate by reducing greenhouse gas emissions or sequestering or utilizing carbon dioxide and—

(A) reduce the need for additional energy supplies by using existing energy supplies with greater efficiency;

(B) transmit, distribute, or transport energy with greater effectiveness through the infrastructure of the United States; or

(C) increase and diversify the sources of energy in the United States in a way that will reduce risk to human health, safety, and welfare and the environment and create energy security.

(6) COST.—The term ''cost'' has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(7) DIRECT LOAN.—The term ''direct loan'' has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(8) ENERGY TRANSITION COMMUNITY.—The term ''energy transition community'' has the meaning given such term in section 511 of this Act.

(9) FINANCIAL INSTITUTION.—The term ''financial institution'' means—

(A) an insured bank (as defined in section 3(h) of the Federal Deposit Insurance Act (12 U.S.C. 1813(h)));

(B) a commercial bank or trust company;

(C) a private banker;

(D) an agency or branch of a foreign bank in the United States;

(E) any credit union;

(F) a thrift institution;

(G) a broker or dealer registered with the Securities and Exchange Commission under the Securities Exchange Act of 1934 (15 U.S.C. 78a et seq.);

(H) a broker or dealer in securities or commodities;

(I) an investment banker or investment company;

(J) an insurance company; and

(K) a loan or finance company.

(10) FUND.—The term ''Fund'' means the Clean Energy Investment Fund established by section 105(a).

(11) LOAN GUARANTEE.—The term ''loan guarantee'' has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(12) NATIONAL LABORATORY.—The term ''National Laboratory'' has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(13) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(14) SECURITY.—The term ''security'' has the meaning given the term in section 2 of the Securities Act of 1933 (15 U.S.C. 77b).

(15) SMALL BUSINESS.—The term ''small business'' means a business which is independently owned and operated and which is not dominant in

its field of operation. The term ''small business'' may be further defined by the Administrator by the number of employees, dollar volume of business, net worth, net income, or other factors.

(16) STATE.—The term ''State'' means—

(A) a State;

(B) the District of Columbia;

(C) the Commonwealth of Puerto Rico; and

(D) any other territory or possession of the United States.

**SEC. 102. ENERGY TECHNOLOGY DEPLOYMENT GOALS.**

(a) GOALS.—Not later than 1 year after the date of enactment of this Act, the Secretary, in consultation with the Advisory Council, shall develop and publish for review and comment in the Federal Register near-, medium-, and long-term goals (including numerical performance targets at appropriate intervals to measure progress toward those goals) for the deployment of clean energy technologies through the credit support programs established by this subtitle to promote—

(1) the deployment, by not later than 2050, of electric generating capacity with net-zero greenhouse gas emissions, that is sufficient to reliably meet the

projected energy demand of the United States in 2050;

(2) clean energy technologies in vehicles and fuels that will substantially reduce the reliance of the United States on foreign sources of energy and insulate consumers from the volatility of global energy markets;

(3) a domestic commercialization and manufacturing capacity that will establish the United States as a world leader in clean energy technologies across multiple sectors;

(4) the installation of electricity transmission infrastructure with the capacity to provide the cost-effective deployment of zero-emission electricity technologies appropriate to each region of the United States;

(5) the transformation of the building stock of the United States to net zero energy consumption;

(6) the recovery, use, and prevention of waste energy;

(7) domestic manufacturing of clean energy technologies on a scale that is sufficient to achieve price parity with conventional energy sources;

(8) domestic production of commodities and materials, including steel, chemicals, polymers, and

cement, through the use of clean energy technologies that will establish the United States as a world leader in the environmentally-sustainable production of such commodities and materials;

(9) a robust, efficient, and interactive electricity transmission grid that will allow for the incorporation of clean energy technologies, distributed generation, smart grid functions, and demand-response in each regional electric grid;

(10) a variety of financial products intended to allow owners and users of residential, retail, commercial, and industrial buildings to make energy efficiency and distributed generation technology investments with reasonable payback periods; and

(11) such other goals as the Secretary, in consultation with the Advisory Council, determines to be consistent with this subtitle.

(b) REVISIONS.—The Secretary shall revise the goals established under subsection (a), from time to time as appropriate, to account for advances in technology and infrastructure.

**SEC. 103. CLEAN ENERGY DEPLOYMENT ADMINISTRATION.**

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established in the Department of Energy an administration, to be

known as the Clean Energy Deployment Administration. There shall be at the head of the Administration an Administrator and a Board of Directors, who shall be appointed by the President with the advice and consent of the Senate.

(2) STATUS.—

(A) IN GENERAL.—The Administration (including officers, employees, and agents of the Administration) shall not be responsible to, or subject to the authority, direction, or control of, any other officer, employee, or agent of the Department of Energy other than the Secretary, acting through the Administrator.

(B) EXEMPTION FROM REORGANIZATION.—The Administration shall be exempt from the reorganization authority provided under section 643 of the Department of Energy Organization Act (42 U.S.C. 7253).

(C) INSPECTOR GENERAL.—Section 12 of the Inspector General Act of 1978 (5 U.S.C. App.) is amended—

(i) in paragraph (1), by inserting ''the Administrator of the Clean Energy Deployment Administration;'' after ''Export-Import Bank;''; and

(ii) in paragraph (2), by inserting ''the Clean Energy Deployment Administration,'' after ''Export-Import Bank,''.

(3) OFFICES.—

(A) PRINCIPAL OFFICE.—The Administration shall—

(i) maintain the principal office of the Administration in the District of Columbia; and

(ii) for purposes of venue in civil actions, be considered to be a resident of the District of Columbia.

(B) OTHER OFFICES.—The Administration may establish other offices in such other places as the Administration considers necessary or appropriate for the conduct of the business of the Administration.

(b) ADMINISTRATOR.—

(1) IN GENERAL.—The Administrator shall be—

(A) appointed by the President, with the advice and consent of the Senate, for a 5-year term; and

(B) compensated at the annual rate of basic pay prescribed for level II of the Execu-

tive Schedule under section 5313 of title 5, United States Code.

(2) DUTIES.—The Administrator shall—

(A) serve as—

(i) the Chief Executive Officer of the Administration; and

(ii) the Chairman of the Board of Directors;

(B) consult with the Secretary of Agriculture, the Secretary of the Interior, the Administrator of the Environmental Protection Agency, and the heads of other agencies as appropriate, in carrying out the duties described in this paragraph;

(C) ensure that—

(i) the Administration operates in a safe and sound manner, including maintenance of adequate capital and internal controls (consistent with section 404 of the Sarbanes-Oxley Act of 2002 (15 U.S.C. 7262));

(ii) the operations and activities of the Administration foster liquid, efficient, competitive, and resilient energy and energy efficiency finance markets;

(iii) the Administration carries out this subtitle only through activities that are authorized under and consistent with this subtitle; and

(iv) the activities of the Administration and the manner in which the Administration is operated are consistent with the public interest;

(D) develop policies and procedures for the Administration that will—

(i) promote a self-sustaining portfolio of investments that will maximize the value of investments to effectively promote clean energy technologies;

(ii) promote transparency and openness in Administration operations;

(iii) afford the Administration with sufficient flexibility to carry out this subtitle;

(iv) provide for the efficient processing of applications;

(v) promote the participation of private financial institutions and other sources of private capital in investments,

on commercially reasonable terms, if and to the extent the capital is available; and

(vi) promote the availability of financial products to small business by working with entities that have appropriate expertise in extending credit or other relevant financial services to small businesses that are developing clean energy technologies;

(E) ensure, to the maximum extent practicable and to the extent of available resources, that on the request of any energy transition community or Indian Tribe, such energy transition community or Indian Tribe shall have available scientific and technical information and expertise for use in the regulation, development, and management of clean energy technologies, either—

(i) directly, acting through Federal officials within the Administration; or

(ii) indirectly, by providing financial assistance to an energy transition community or an Indian Tribe to secure independent assistance in the regulation, development, and management of clean energy technologies; and

(F) with the concurrence of the Board of Directors, establish expected loss reserves for the support provided by the Administration consistent with section 104(a).

(c) BOARD OF DIRECTORS.—

(1) IN GENERAL.—The Board of Directors of the Administration shall consist of—

(A) the Secretary or the designee of the Secretary, who shall serve as an ex-officio voting member of the Board of Directors;

(B) the Administrator, who shall serve as the Chairman of the Board of Directors; and

(C) 7 additional members who shall—

(i) be appointed by the President, with the advice and consent of the Senate, for staggered 5-year terms; and

(ii) have experience in banking or financial services relevant to the operations of the Administration, including individuals with substantial experience in the development of energy projects, the electricity generation sector, the transportation sector, the manufacturing sector, and the energy efficiency sector.

(2) DUTIES.—The Board of Directors shall—

(A) oversee the operations of the Administration and ensure industry best practices are followed in all financial transactions involving the Administration;

(B) consult with the Administrator on the general policies and procedures of the Administration to ensure that the interests of the taxpayers are protected;

(C) ensure that the portfolio of investments of the Administration are consistent with this subtitle and with the long-term financial stability of the Administration;

(D) ensure that the operations and activities of the Administration are consistent with the development of a robust private sector that can provide commercial loans or financing products for clean energy technologies; and

(E) not serve on a full-time basis, except that the Board of Directors shall meet at least quarterly to review, as appropriate, applications for credit support and set policies and procedures as necessary.

(3) REMOVAL.—An appointed member of the Board of Directors may be removed from office by the President for good cause.

(4) VACANCIES.—An appointed seat on the Board of Directors that becomes vacant shall be filled by appointment by the President, but only for the unexpired portion of the term of the vacating member.

(5) COMPENSATION OF MEMBERS.—An appointed member of the Board of Directors shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level III of the Executive Schedule under section 5314 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the performance of the duties of the Board of Directors.

(d) ENERGY TECHNOLOGY ADVISORY COUNCIL.—

(1) IN GENERAL.—The Administration shall have an Energy Technology Advisory Council consisting of—

(A) 6 members selected by the Secretary; and

(B) 3 members selected by the Board of Directors of the Administration.

(2) QUALIFICATIONS.—The members of the Advisory Council shall—

(A) have relevant scientific expertise; and

(B) in the case of the members selected by the Secretary under paragraph (1)(A), include representatives of—

(i) the academic community;

(ii) the private research community;

(iii) National Laboratories;

(iv) the technology or project development community;

(v) the commercial energy financing and operations sector; and

(vi) the electric generation sector, including at least one person who is knowledgeable of the electric cooperative sector.

(3) DUTIES.—

(A) ADVICE.—The Advisory Council shall provide advice to the Administration regarding the technological approaches that should be supported by the Administration to meet the goals developed by the Secretary under section 102.

(B) METHODOLOGY FOR ASSESSMENT.—The Advisory Council shall develop and publish for comment in the Federal Register a methodology for the assessment of clean energy technologies. Such methodology shall—

(i) allow the Administration to evaluate projects based on the progress likely to be achieved per-dollar invested in clean energy technology; and

(ii) take into account the extent to which support for a clean energy technology is likely to accrue benefits that are attributable to commercial-scale deployment taking place earlier than that which otherwise would have occurred without the support.

(4) TERM.—

(A) IN GENERAL.—Members of the Advisory Council shall have 5-year staggered terms, as determined by the Secretary and the Administrator.

(B) REAPPOINTMENT.—A member of the Advisory Council may be reappointed.

(5) COMPENSATION.—A member of the Advisory Council, who is not otherwise compensated as a Federal employee, shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time)

during which the member is engaged in the performance of the duties of the Advisory Council.

(e) STAFF.—

(1) IN GENERAL.—The Administrator, in consultation with the Board of Directors, may—

(A) appoint and terminate such officers, attorneys, employees, and agents as are necessary to carry out this subtitle; and

(B) vest those personnel with such powers and duties as the Administrator determines to be necessary.

(2) DIRECT HIRE AUTHORITY.—

(A) IN GENERAL.—Notwithstanding section 3304 and sections 3309 through 3318 of title 5, United States Code, the Administrator may, on a determination that there is a severe shortage of candidates or a critical hiring need for particular positions, recruit and directly appoint highly qualified critical personnel with specialized knowledge important to the function of the Administration into the competitive service.

(B) EXCEPTION.—The authority granted under subparagraph (A) shall not apply to posi-

tions in the excepted service or the Senior Executive Service.

(C) REQUIREMENTS.—In exercising the authority granted under subparagraph (A), the Administrator shall ensure that any action taken by the Administrator—

(i) is consistent with the merit principles of section 2301 of title 5, United States Code; and

(ii) complies with the public notice requirements of section 3327 of title 5, United States Code.

(D) TERMINATION OF EFFECTIVENESS.—The authority provided by this paragraph terminates effective on the date that is 3 years after the date of enactment of this Act.

(3) CRITICAL PAY AUTHORITY.—

(A) IN GENERAL.—Notwithstanding section 5377 of title 5, United States Code, and without regard to the provisions of that title governing appointments in the competitive service or the Senior Executive Service and chapters 51 and 53 of that title (relating to classification and pay rates), the Administrator may establish, fix the compensation of, and appoint

individuals to critical positions needed to carry out the functions of the Administration, if the Administrator certifies that—

(i) the positions require expertise of an extremely high level in a financial, technical, or scientific field;

(ii) the Administration would not successfully accomplish an important mission without such an individual; and

(iii) exercise of the authority is necessary to recruit an individual who is exceptionally well qualified for the position.

(B) LIMITATIONS.—The authority granted under subparagraph (A) shall be subject to the following conditions:

(i) The number of critical positions authorized by subparagraph (A) may not exceed 20 at any given time in the Administration.

(ii) The term of an appointment under subparagraph (A) may not exceed 4 years.

(iii) An individual appointed under subparagraph (A) may not have been an Administration employee at any time dur-

ing the 2-year period preceding the date of appointment.

(iv) Total annual compensation for any individual appointed under subparagraph (A) may not exceed the highest total annual compensation payable at the rate determined under section 104 of title 3, United States Code.

(v) An individual appointed under subparagraph (A) may not be considered to be an employee for purposes of subchapter II of chapter 75 of title 5, United States Code.

(C) NOTIFICATION.—Each year, the Administrator shall submit to Congress a notification that lists each individual appointed under this paragraph.

**SEC. 104. ADMINISTRATION FUNCTIONS.**

(a) DIRECT SUPPORT.—

(1) IN GENERAL.—The Administration may issue direct loans, letters of credit, loan guarantees, insurance products, or such other credit support (including through participation as a co-lender or a lending member of a syndication) as the Administrator considers appropriate to deploy clean energy

technologies if the Administrator has determined that deployment of the technologies would benefit or be accelerated by the support.

(2) ELIGIBILITY CRITERIA.—In carrying out this subsection and awarding credit support to projects, the Administrator shall account for—

(A) how the technology rates based on an evaluation methodology established by the Advisory Council;

(B) how the project fits with the goals developed by the Secretary under section 102; and

(C) the potential for the applicant to successfully complete the project.

(3) RISK.—

(A) TECHNOLOGY RISK.—In this paragraph, the term ''technology risk''—

(i) means risk during construction or operation associated with the design, development, or deployment of a clean energy technology from the perspective of commercial lenders, that may be increased as a result of the absence of adequate historical construction, operating, or performance data from commercial applications of the technology; and

(ii) includes risk associated with the cost, schedule, performance, reliability, maintenance, and the perception of risk.

(B) EXPECTED LOAN LOSS RESERVE.—The Administrator shall establish an expected loan loss reserve to account for estimated losses attributable to activities under this section that is consistent with the purposes of—

(i) developing breakthrough technologies to the point at which the associated technology risk is largely mitigated;

(ii) achieving widespread deployment and advancing the commercial viability of clean energy technologies; and

(iii) advancing the goals developed by the Secretary under section 102.

(C) INITIAL EXPECTED LOAN LOSS RESERVE.—Until such time as the Administrator determines sufficient data exist to establish an expected loan loss reserve that is appropriate, the Administrator shall consider establishing an initial rate of 10 percent for the portfolio of investments under this subtitle.

(D) PORTFOLIO INVESTMENT APPROACH.—The Administration shall—

(i) use a portfolio investment approach to mitigate risk and diversify investments across technologies;

(ii) to the maximum extent practicable and consistent with long-term self-sufficiency, weigh the portfolio of investments in projects to advance goals developed by the Secretary under section 102; and

(iii) consistent with the expected loan loss reserve established under this paragraph, provide the maximum practicable percentage of support to promote breakthrough technologies.

(E) LOSS RATE REVIEW.—

(i) IN GENERAL.—The Board of Directors shall review on an annual basis the loss rates of the portfolio to determine the adequacy of the reserves.

(ii) REPORT.—Not later than 90 days after the date of the initiation of each review under clause (i), the Administrator 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

describing the results of the review and any recommended policy changes.

(4) APPLICATION REVIEW.—

(A) IN GENERAL.—To the maximum extent practicable and consistent with sound business practices, the Administration shall seek to consolidate reviews of applications for credit support under this subtitle such that final decisions on applications can be issued not later than 180 days after the date of submission of a completed application.

(B) ENVIRONMENTAL REVIEW.—In carrying out this subtitle, the Administration shall, to the maximum extent practicable—

(i) avoid duplicating efforts that have already been undertaken by other agencies, including State agencies acting under Federal programs; and

(ii) with the advice of the Council on Environmental Quality and any other applicable agencies, use the administrative records of similar reviews conducted throughout the executive branch to develop the most expeditious review process practicable.

(5) WAGE RATE REQUIREMENTS.—With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

(b) INDIRECT SUPPORT.—

(1) IN GENERAL.—The Administration shall work to develop financial products and arrangements to promote widespread deployment of, and private sector support of, clean energy technologies by facilitating aggregation of small projects and by providing indirect credit support, including credit enhancement.

(2) FINANCIAL PRODUCTS.—The Administration—

(A) in cooperation with Federal, State, local, and private sector entities, shall develop debt instruments that directly aggregate, or provide for the aggregation of, projects for the deployment of clean energy technology on a scale appropriate for residential or commercial applications; and

(B) may insure, purchase, and make commitments to purchase, any debt instrument as-

sociated with the deployment of a clean energy technology (including instruments secured by liens or other collateral related to the funding of clean energy technology) for the purposes of enhancing the availability of private financing for deployment of clean energy technology.

(3) DISPOSITION OF DEBT OR INTEREST.—The Administration may acquire, hold, and sell or otherwise dispose of, pursuant to commitments or otherwise, any debt associated with the deployment of clean energy technologies or interest in the debt.

(4) PRICING.—

(A) IN GENERAL.—The Administrator may establish requirements, and impose charges or fees, which may be regarded as elements of pricing, for different classes of sellers, servicers, or services.

(B) CLASSIFICATION OF SELLERS AND SERVICERS.—For the purpose of subparagraph (A), the Administrator may classify sellers and servicers as necessary to promote transparency and liquidity and to properly characterize the risk of default.

(5) ELIGIBILITY.—The Administrator shall establish—

(A) eligibility criteria for loan originators, sellers, and servicers seeking support for portfolios of financial obligations relating to clean energy technologies to ensure the capability of the loan originators, sellers, and servicers to perform the functions required to maintain the expected performance of the portfolios; and

(B) such criteria, standards, guidelines, and mechanisms such that, to the maximum extent practicable, loan originators and sellers will be able to determine the eligibility of loans for resale at the time of initial lending.

(6) SECONDARY MARKET SUPPORT.—

(A) IN GENERAL.—The Administration may lend on the security of, and make commitments to lend on the security of, any debt that the Administration has issued or is authorized to purchase under this section.

(B) AUTHORIZED ACTIONS.—On such terms and conditions as the Administrator may prescribe, the Administration may, based on the debt and with the concurrence of the Board of Directors—

(i) give security or guarantee;

(ii) pay interest or other return; and

(iii) issue notes, debentures, bonds, or other obligations or securities.

(7) LENDING ACTIVITIES.—

(A) IN GENERAL.—The Administrator shall determine—

(i) the volume of the lending activities of the Administration; and

(ii) the types of loan ratios, risk profiles, interest rates, maturities, and charges or fees in the secondary market operations of the Administration.

(B) OBJECTIVES.—Determinations under subparagraph (A) shall be consistent with the objectives of—

(i) providing an attractive investment environment for clean energy technologies;

(ii) making the operations of the Administration self-supporting over the long term; and

(iii) advancing the goals developed by the Secretary under section 102.

**SEC. 105. IMPROVEMENTS TO EXISTING CLEAN ENERGY INVESTMENT PROGRAMS.**

(a) CLEAN ENERGY INVESTMENT FUND.—

(1) ESTABLISHMENT.—There is established in the Treasury of the United States a revolving fund, to be known as the Clean Energy Investment Fund, consisting of—

(A) such amounts as are deposited in the Fund under this subtitle and amendments made by this subtitle; and

(B) such sums as may be appropriated to the Fund.

(2) EXPENDITURES FROM FUND.—

(A) IN GENERAL.—Amounts in the Fund shall be available to the Secretary for obligation without fiscal year limitation, to remain available until expended.

(B) ADMINISTRATIVE EXPENSES.—

(i) FEES.—Fees collected by the Secretary of the Treasury for expenses related to the administrative needs of the Fund shall be available without limitation to cover applicable expenses.

(ii) FUND.—To the extent that administrative expenses are not reimbursed through fees, an amount not to exceed 1.5 percent of the amounts in the Fund as of the beginning of each fiscal year shall be

available to pay the administrative expenses for the fiscal year necessary to carry out title XVII of the Energy Policy Act of 2005 (42 U.S.C. 16511 et seq.).

(3) TRANSFERS OF AMOUNTS.—

(A) IN GENERAL.—The amounts required to be transferred to the Fund under this subsection shall be transferred at least monthly from the general fund of the Treasury to the Fund on the basis of estimates made by the Secretary of the Treasury.

(B) CASH FLOWS.—Cash flows associated with costs of the Fund described in section 502(5)(B) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(B)) shall be transferred to appropriate credit accounts.

(C) ADJUSTMENTS.—Proper adjustment shall be made in amounts subsequently transferred to the extent prior estimates were in excess of or less than the amounts required to be transferred.

(b) REVISIONS TO LOAN GUARANTEE PROGRAM AUTHORITY.—

(1) DEFINITION OF COMMERCIAL TECHNOLOGY.—Section 1701(1) of the Energy Policy Act

of 2005 (42 U.S.C. 16511(1)) is amended by striking subparagraph (B) and inserting the following:

''(B) EXCLUSION.—The term 'commercial technology' does not include a technology if the sole use of the technology is in connection with—

''(i) any demonstration project; or

''(ii) a project for which the Secretary approved a guarantee.''.

(2) SPECIFIC APPROPRIATION OR CONTRIBUTION.—Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by striking subsection (b) and inserting the following:

''(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—

''(1) IN GENERAL.—No guarantee shall be made unless sufficient amounts to account for the cost are available—

''(A) in unobligated balances within the Clean Energy Investment Fund established under section 105(a) of the Clean Energy Innovation and Deployment Act of 2020;

''(B) as a payment from the borrower and the payment is deposited in the Clean Energy Investment Fund; or

''(C) in any combination of balances and payments described in subparagraphs (A) and (B), respectively.

''(2) LIMITATION.—The source of payments received from a borrower under paragraph (1)(B) shall not be a loan or other debt obligation that is made or guaranteed by the Federal Government.

''(3) RELATION TO OTHER LAWS.—Section 504(b) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661c(b)) shall not apply to a guarantee under this section.''.

(3) SUBROGATION.—Section 1702(g)(2) of the Energy Policy Act of 2005 (42 U.S.C. 16512(g)(2)) is amended by striking subparagraphs (B) and (C) and inserting the following:

''(B) SUPERIORITY OF RIGHTS.—Except as provided in subparagraph (C), the rights of the Secretary, with respect to any property acquired pursuant to a guarantee or related agreements, shall be superior to the rights of any other person with respect to the property.

''(C) TERMS AND CONDITIONS.—A guarantee agreement shall include such detailed terms and conditions as the Secretary determines appropriate to—

''(i) protect the interests of the United States in the case of default;

''(ii) have available all the patents and technology necessary for any person selected, including the Secretary, to complete and operate the project;

''(iii) provide for sharing the proceeds received from the sale of project assets with other creditors or control the disposition of project assets if necessary to protect the interests of the United States in the case of default; and

''(iv) provide such lien priority in project assets as necessary to protect the interests of the United States in the case of a default.''.

(4) FEES.—Section 1702(h) of the Energy Policy Act of 2005 (42 U.S.C. 16512(h)) is amended by striking paragraph (2) and inserting the following:

''(2) AVAILABILITY.—Fees collected under this subsection shall—

''(A) be deposited by the Secretary in the Clean Energy Investment Fund established under section 105(a) of Clean Energy Innovation and Deployment Act of 2020; and

''(B) remain available to the Secretary for expenditure, without further appropriation or fiscal year limitation, for administrative expenses incurred in carrying out this title.

''(3) ADJUSTMENT.—The Secretary may adjust the amount or manner of collection of fees under this subsection as the Secretary determines is necessary to deploy, to the maximum extent practicable, eligible projects under this title.

''(4) EXCESS FEES.—Of the amount of a fee imposed on an applicant at the conditional commitment stage, 75 percent of the amount shall be refundable to the applicant if there is no financial close on the application, unless the Secretary determines that the administrative costs of the Department have exceeded the amount retained.

''(5) CREDIT REPORT.—If, in the opinion of the Secretary, the credit rating of an applicant is not relevant to the determination of whether or not support will be provided and the applicant agrees to accept the credit rating assigned to the applicant by the Secretary, the Secretary may waive any requirement to provide a third-party credit report.''.

(5) PROCESSING.—Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by adding at the end the following:

''(l) ACCELERATED REVIEWS.—To the maximum extent practicable and consistent with sound business practices, the Secretary shall seek to conduct necessary reviews concurrently of an application for a guarantee under this title such that decisions as to whether to enter into a commitment on the application can be issued not later than 180 days after the date of submission of a completed application.''.

**SEC. 106. FEDERAL CREDIT AUTHORITY.**

(a) TRANSFER OF FUNCTIONS AND AUTHORITY.—

(1) IN GENERAL.—

(A) DEADLINE.—Subject to paragraph (2), on a finding by the Secretary and the Administrator that the Administration is sufficiently ready to assume the functions, and that applicants to those programs will not be unduly adversely affected, but in no case later than 18 months after the date of enactment of this Act, the functions and authority of the Secretary described in subparagraph (B) shall be transferred to the Administration.

(B) FUNCTIONS AND AUTHORITY.—The functions and authority of the Secretary described in this subparagraph are functions and authority under—

(i) subsection title XVII of the Energy Policy Act of 2005 (42 U.S.C. 16511 et seq.);

(ii) section 2602(c) of the Energy Policy Act of 1992 (25 U.S.C. 3502(c)); and

(iii) financial services and program management for grant, loan, and other credit enhancement programs authorized to be administered by the Secretary under any other provision of law, as the Secretary determines appropriate.

(2) FAILURE TO TRANSFER FUNCTIONS.—If the functions and authorities are not transferred to the Administration in accordance with paragraph (1), the Secretary and the Administrator shall submit to Congress a report on the reasons for delay and an expected timetable for transfer of the functions and authorities to the Administration not later than 2 years after the enactment of this title and every year thereafter until the functions and authorities are transferred to the Administration.

(3) EFFECT ON EXISTING RIGHTS AND OBLIGATIONS.—The transfer of functions and authority under this subsection shall not affect the rights and obligations of any party that arise under a predecessor program or authority prior to the transfer under this subsection.

(4) TRANSFER OF FUND AUTHORITY.—

(A) IN GENERAL.—On transfer of functions pursuant to paragraph (1), the Administration shall have all authorities to make use of the Fund reserved for the Secretary before the transfer.

(B) ADMINISTRATIVE EXPENSES.—Effective beginning on the date of enactment of this Act, the Administrator may make use of up to 1.5 percent of the amounts in the Fund as of the beginning of each fiscal year to pay administrative expenses for that fiscal year to carry out this subtitle.

(5) USE.—

(A) IN GENERAL.—Amounts in the Fund shall be available for discharge of liabilities and all other expenses of the Administration, including subsequent transfer to the respective credit accounts.

(B) LIABILITY.—All activities of the Administration that could result in a liability for the United States shall be transparently accounted for and no obligation or liability may be incurred unless—

(i) the appropriate amounts are transferred to credit accounts for activities pursuant to the Federal Credit Reform Act of 1990 (2 U.S.C. 661a); or

(ii) sufficient amounts are reserved within the Fund to account for such liabilities.

(6) INITIAL INVESTMENT.—

(A) IN GENERAL.—On transfer of functions pursuant to paragraph (1), out of any funds in the Treasury not otherwise appropriated, the Secretary of the Treasury shall transfer to the Fund to carry out this subtitle $10,000,000,000, to remain available until expended.

(B) RECEIPT AND ACCEPTANCE.—The Fund shall be entitled to receive and shall accept, and shall be used to carry out this subtitle, the funds transferred to the Fund under

subparagraph (A), without further appropriation.

(7) AUTHORIZATION OF APPROPRIATIONS.—In addition to funds made available by paragraphs (1) through (6), there are authorized to be appropriated to the Fund such sums as are necessary to carry out this subtitle.

(b) PAYMENTS OF LIABILITIES.—Any payment to discharge liabilities arising from agreements under this subtitle shall be made exclusively out of the Fund or the associated credit account, as appropriate.

(c) FEES.—

(1) IN GENERAL.—Consistent with carrying out this subtitle, the Administrator shall charge fees or collect compensation generally in accordance with commercial rates.

(2) AVAILABILITY OF FEES.—All fees collected by the Administration may be retained by the Administration and placed in the Fund and may remain available to the Administration, without further appropriation or fiscal year limitation, for use in carrying out this subtitle.

(3) BREAKTHROUGH TECHNOLOGIES.—The Administration shall charge the minimum amount in fees or compensation practicable for breakthrough

technologies, consistent with the long-term viability of the Administration, unless the Administration first determines that a higher charge will not impede the development of the technology.

(4) ALTERNATIVE FEE ARRANGEMENTS.—The Administration may use such alternative arrangements (such as profit participation, contingent fees, and other valuable contingent interests) as the Administration considers appropriate to compensate the Administration for the expenses of the Administration and the risk inherent in the support of the Administration.

(d) COST TRANSFER AUTHORITY.—Amounts collected by the Administration for the cost of a loan or loan guarantee shall be transferred by the Administration to the respective credit program accounts.

(e) SUPPLEMENTAL BORROWING AUTHORITY.—In order to maintain sufficient liquidity for activities authorized under section 104(b), the Administration may issue notes, debentures, bonds, or other obligations for purchase by the Secretary of the Treasury.

(f) PUBLIC DEBT TRANSACTIONS.—For the purpose of subsection (e)—

(1) the Secretary of the Treasury may use as a public debt transaction the proceeds of the sale of

any securities issued under chapter 31 of title 31, United States Code; and

(2) the purposes for which securities may be issued under that chapter are extended to include any purchase under this subsection.

(g) MAXIMUM OUTSTANDING HOLDING.—The Secretary of the Treasury shall purchase instruments issued under subsection (e) to the extent that the purchase would not increase the aggregate principal amount of the outstanding holdings of obligations under subsection (e) by the Secretary of the Treasury to an amount that is greater than $2,000,000,000.

(h) RATE OF RETURN.—Each purchase of obligations by the Secretary of the Treasury under this section shall be on terms and conditions established to yield a rate of return determined by the Secretary of the Treasury to be appropriate, taking into account the current average rate on outstanding marketable obligations of the United States as of the last day of the month preceding the purchase.

(i) SALE OF OBLIGATIONS.—The Secretary of the Treasury may at any time sell, on terms and conditions and at prices determined by the Secretary of the Treasury, any of the obligations acquired by the Secretary of the Treasury under this section.

(j) PUBLIC DEBT TRANSACTIONS.—All redemptions, purchases, and sales by the Secretary of the Treasury of obligations under this section shall be treated as public debt transactions of the United States.

**SEC. 107. GENERAL PROVISIONS.**

(a) IMMUNITY FROM IMPAIRMENT, LIMITATION, OR RESTRICTION.—

(1) IN GENERAL.—All rights and remedies of the Administration (including any rights and remedies of the Administration on, under, or with respect to any mortgage or any obligation secured by a mortgage) shall be immune from impairment, limitation, or restriction by or under—

(A) any law (other than a law enacted by Congress expressly in limitation of this paragraph) that becomes effective after the acquisition by the Administration of the subject or property on, under, or with respect to which the right or remedy arises or exists or would so arise or exist in the absence of the law; or

(B) any administrative or other action that becomes effective after the acquisition.

(2) STATE LAW.—The Administrator may conduct the business of the Administration without re-

gard to any qualification or law of any State relating to incorporation.

(b) USE OF OTHER AGENCIES.—With the consent of a department, establishment, or instrumentality (including any field office), the Administration may—

(1) use and act through any department, establishment, or instrumentality; or

(2) use, and pay compensation for, information, services, facilities, and personnel of the department, establishment, or instrumentality.

(c) PROCUREMENT.—The Administrator shall be the senior procurement officer for the Administration for purposes of section 1702 of title 41, United States Code.

(d) FINANCIAL MATTERS.—

(1) INVESTMENTS.—Funds of the Administration may be invested in such investments as the Board of Directors may prescribe.

(2) FISCAL AGENTS.—Any Federal reserve bank or any bank for which, at the time of designation by the Administrator there is outstanding a designation by the Secretary of the Treasury as a general or other depository of public money, may be designated by the Administrator as a depositary or custodian or as a fiscal or other agent of the Administration.

(e) JURISDICTION.—Notwithstanding section 1349 of title 28, United States Code, or any other provision of law—

(1) the Administration shall be considered a corporation covered by sections 1345 and 1442 of title 28, United States Code;

(2) all civil actions to which the Administration is a party shall be considered to arise under the laws of the United States, and the district courts of the United States shall have original jurisdiction of all such actions, without regard to amount or value, except that the courts of appeals shall have jurisdiction over civil actions pertaining to section 103(a)(3); and

(3) any civil or other action, case or controversy in a court of a State, or in any court other than a district court of the United States, to which the Administration is a party may at any time before trial be removed by the Administration, without the giving of any bond or security and by following any procedure for removal of causes in effect at the time of the removal—

(A) to the district court of the United States for the district and division embracing the place in which the same is pending; or

(B) if there is no such district court, to the district court of the United States for the district in which the principal office of the Administration is located.

(f) PERIODIC REPORTS.—Not later than 1 year after commencement of operation of the Administration and at least biannually thereafter, the Administrator 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 that includes a description of—

(1) the technologies supported by activities of the Administration; and

(2) the performance of the Administration on meeting the goals developed by the Secretary under section 102.

(g) AUDITS BY THE COMPTROLLER GENERAL.—

(1) IN GENERAL.—The programs, activities, receipts, expenditures, and financial transactions of the Administration shall be subject to audit by the Comptroller General of the United States under such rules and regulations as may be prescribed by the Comptroller General.

(2) ACCESS.—The representatives of the Government Accountability Office shall—

(A) have access to the personnel and to all books, accounts, documents, records (including electronic records), reports, files, and all other papers, automated data, things, or property belonging to, under the control of, or in use by the Administration, or any agent, representative, attorney, advisor, or consultant retained by the Administration, and necessary to facilitate the audit;

(B) be afforded full facilities for verifying transactions with the balances or securities held by depositories, fiscal agents, and custodians;

(C) be authorized to obtain and duplicate any such books, accounts, documents, records, working papers, automated data and files, or other information relevant to the audit without cost to the Comptroller General; and

(D) have the right of access of the Comptroller General to such information under section 716(c) of title 31, United States Code.

(3) ASSISTANCE AND COST.—

(A) IN GENERAL.—For the purpose of conducting an audit under this subsection, the Comptroller General may, in the discretion of the Comptroller General, employ by contract,

without regard to section 6101 of title 41, United States Code, professional services of firms and organizations of certified public accountants for temporary periods or for special purposes.

(B) REIMBURSEMENT.—

(i) IN GENERAL.—On the request of the Comptroller General, the Administration shall reimburse the General Accountability Office for the full cost of any audit conducted by the Comptroller General under this subsection.

(ii) CREDITING.—Such reimbursements shall—

(I) be credited to the appropriation account entitled ''Salaries and Expenses, Government Accountability Office'' at the time at which the payment is received; and

(II) remain available until expended.

(h) ANNUAL INDEPENDENT AUDITS.—

(1) IN GENERAL.—The Administrator shall—

(A) have an annual independent audit made of the financial statements of the Admin-

istration by an independent public accountant in accordance with generally accepted auditing standards; and

(B) submit to the Secretary the results of the audit.

(2) CONTENT.—In conducting an audit under this subsection, the independent public accountant shall determine and report on whether the financial statements of the Administration—

(A) are presented fairly in accordance with generally accepted accounting principles; and

(B) comply with any disclosure requirements imposed under this subtitle.

(i) FINANCIAL REPORTS.—

(1) IN GENERAL.—The Administrator shall submit to the Secretary annual and quarterly reports of the financial condition and operations of the Administration, which shall be in such form, contain such information, and be submitted on such dates as the Secretary shall require.

(2) CONTENTS OF ANNUAL REPORTS.—Each annual report shall include—

(A) financial statements prepared in accordance with generally accepted accounting principles;

(B) any supplemental information or alternative presentation that the Secretary may require; and

(C) an assessment (as of the end of the most recent fiscal year of the Administration), signed by the chief executive officer and chief accounting or financial officer of the Administration, of—

(i) the effectiveness of the internal control structure and procedures of the Administration; and

(ii) the compliance of the Administration with applicable safety and soundness laws.

(3) SPECIAL REPORTS.—The Secretary may require the Administrator to submit other reports on the condition (including financial condition), management, activities, or operations of the Administration, as the Secretary considers appropriate.

(4) ACCURACY.—Each report of financial condition shall contain a declaration by the Administrator or any other officer designated by the Board of Directors of the Administration to make the declaration, that the report is true and correct to the best of the knowledge and belief of the officer.

(5) AVAILABILITY OF REPORTS.—Reports required under this section shall be published and made publicly available as soon as is practicable after receipt by the Secretary.

(j) SCOPE AND TERMINATION OF AUTHORITY.—

(1) NEW OBLIGATIONS.—The Administrator shall not initiate any new obligations under this subtitle on or after January 1, 2039.

(2) REVERSION TO SECRETARY.—The authorities and obligations of the Administration shall revert to the Secretary on January 1, 2039.

# Subtitle B—Beneficial Electrification

## SEC. 111. INNOVATION IN ELECTRIC VEHICLES THROUGH THE ADVANCED TECHNOLOGY MANUFACTURING INCENTIVE PROGRAM.

(a) IN GENERAL.—

(1) IN GENERAL.—Section 136(c) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013(c)) is amended by striking ''December 30, 2020'' each place it appears and inserting ''December 31, 2030''.

(2) EFFECTIVE DATE.—The amendment made by paragraph (1) shall take effect on December 31, 2020.

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 136(i) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013(i)) is amended by striking ''2008 through 2012'' and inserting ''2021 through 2030''.

**SEC. 112. DEPLOYMENT OF ELECTRIC VEHICLES THROUGH TAX CREDITS.**

(a) NEW PHASEOUT RULES ADDED TO QUALIFIED PLUG-IN ELECTRIC VEHICLE TAX CREDIT.—Subsection (e) of section 30D of the Internal Revenue Code of 1986 is amended to read as follows:

''(e) LIMITATION ON NUMBER OF NEW QUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES ELIGIBLE FOR CREDIT.—

''(1) IN GENERAL.—In the case of any new qualified plug-in electric drive motor vehicle sold after the date of the enactment of the Clean Energy Innovation and Deployment Act of 2020—

''(A) if such vehicle is sold during the transition period, the amount determined under subsection (b)(2) shall be reduced by $500, and

''(B) if such vehicle is sold during the phaseout period, only the applicable percentage of the credit otherwise allowable under subsection (a) shall be allowed.

''(2) TRANSITION PERIOD.—For purposes of this subsection, the transition period subsequent to the first date on which the number of new qualified plug-in electric drive motor vehicles manufactured by the manufacturer of the vehicle referred to in paragraph (1) sold for use in the United States after December 31, 2009, is at least 200,000.

''(3) PHASEOUT PERIOD.—

''(A) IN GENERAL.—For purposes of this subsection, the phaseout period is the period beginning with the second calendar quarter following the calendar quarter which includes the first date on which the number of new qualified plug-in electric drive motor vehicles manufactured by the manufacturer of the vehicle referred to in paragraph (1) sold for use in the United States after December 31, 2009, is at least 600,000.

''(B) APPLICABLE PERCENTAGE.—For purposes of paragraph (1)(B), the applicable percentage is—

''(i) 50 percent for the first calendar quarter of the phaseout period, and

''(ii) 0 percent for each calendar quarter thereafter.

"(C) EXCLUSION OF SALE OF CERTAIN VEHICLES.—

"(i) IN GENERAL.—For purposes of subparagraph (A), any new qualified plug-in electric drive motor vehicle manufactured by the manufacturer of the vehicle referred to in paragraph (1) which was sold during the exclusion period shall not be included for purposes of determining the number of such vehicles sold.

"(ii) EXCLUSION PERIOD.—For purposes of this subparagraph, the exclusion period is the period—

"(I) beginning on the first date on which the number of new qualified plug-in electric drive motor vehicles manufactured by the manufacturer of the vehicle referred to in paragraph (1) sold for use in the United States after December 31, 2009, is at least 200,000, and

"(II) ending on the date of the enactment of the Clean Energy Innovation and Deployment Act of 2020.

''(4) CONTROLLED GROUPS.—Rules similar to the rules of section 30B(f)(4) shall apply for purposes of this subsection.''.

(b) EXTENSION OF CREDIT FOR NEW QUALIFIED FUEL CELL MOTOR VEHICLES.—Section 30B(k)(1) of the Internal Revenue Code of 1986 is amended by striking ''December 31, 2020'' and inserting ''December 31, 2028''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property purchased after the date of the enactment of this Act.

**SEC. 113. DEPLOYMENT OF ELECTRIC VEHICLE CHARGING INFRASTRUCTURE THROUGH SUPPLY EQUIPMENT PROGRAMS.**

(a) ELECTRIC VEHICLE SUPPLY EQUIPMENT COORDINATION.—Not later than 90 days after the date of enactment of this Act, the Secretary of Energy, acting through the Assistant Secretary of the Office of Electricity, shall convene a group to assess progress in the development of standards necessary to—

(1) support the expanded deployment of electric vehicle supply equipment;

(2) develop an electric vehicle charging network to provide reliable charging for electric vehicles nationwide; and

(3) ensure the development of such network will not compromise the stability and reliability of the electric grid.

(b) UTILITY ELECTRIC VEHICLE CHARGING PROGRAMS.—

(1) CONSIDERATION AND DETERMINATION RESPECTING CERTAIN RATEMAKING STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

''(20) UTILITY ELECTRIC VEHICLE CHARGING PROGRAMS.—

''(A) IN GENERAL.—Each State shall consider authorizing each electric utility of the State to establish rates sufficient to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of electric vehicle supply equipment designed to provide vehicle charging or load management.

''(B) DEFINITION.—For purposes of this paragraph, the term 'electric vehicle supply equipment' means the conductors, including the ungrounded, grounded, and equipment grounding conductors, the electric vehicle connectors,

attachment plugs, and all other fittings, devices, power outlets, or apparatuses installed specifically for the purpose of delivering energy to an electric vehicle.''.

(2) OBLIGATIONS TO CONSIDER AND DETERMINE.—

(A) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding at the end the following:

''(7)(A) Not later than 1 year after the date of enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standard established by paragraph (20) of section 111(d).

''(B) Not later than 2 years after the date of the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall complete the consideration, and shall make the determination, re-

ferred to in section 111 with respect to the standard established by paragraph (20) of section 111(d).''.

(B) FAILURE TO COMPLY.—Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended—

(i) by striking ''subsection (b)(2)'' and inserting ''subsection (b)''; and

(ii) by striking ''(19)'' and inserting ''(20)''.

(C) PRIOR STATE ACTIONS.—Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding at the end the following:

''(g) PRIOR STATE ACTIONS.—Subsections (b) and (c) of this section shall not apply to the standard established by paragraph (20) of section 111(d) in the case of any electric utility in a State if, before the enactment of this subsection—

''(1) the State has implemented for such utility the standard concerned (or a comparable standard);

''(2) the State regulatory authority for such State or relevant nonregulated electric utility has conducted a proceeding to consider implementation of the standard concerned (or a comparable standard) for such utility; or

''(3) the State legislature has voted on the implementation of such standard (or a comparable standard) for such utility.''.

(c) MODEL BUILDING CODE FOR ELECTRIC VEHICLE SUPPLY EQUIPMENT.—

(1) DEVELOPMENT.—The Secretary of Energy shall develop a proposal to establish or update, as appropriate, model building codes for—

(A) integrating electric vehicle supply equipment into residential and commercial buildings that include space for individual vehicle or fleet vehicle parking; and

(B) integrating onsite renewable power equipment and electric storage equipment (including electric vehicle batteries to be used for electric storage) in residential and commercial buildings.

(2) CONSULTATION.—In developing the proposal under paragraph (1), the Secretary shall consult with stakeholders representing the building construction industry, manufacturers of electric vehicles and electric vehicle supply equipment, State and local governments, and any other persons with relevant expertise or interests.

(3) DEADLINE.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit the proposal developed under paragraph (1) to the American Society of Heating, Refrigerating, and Air Conditioning Engineers and the International Code Council for consideration.

**SEC. 114. DEPLOYMENT OF ENERGY EFFICIENT BUILDINGS THROUGH TAX CREDITS.**

(a) CREDIT DATES EXTENDED.—Subsection (g) of section 25D of the Internal Revenue Code of 1986 is amended—

(1) in paragraph (1), by striking ''January 1, 2020'' and inserting ''January 1, 2025'';

(2) in paragraph (2), by striking ''after December 31, 2019, and before January 1, 2021'' and inserting ''after December 31, 2024, and before January 1, 2026''; and

(3) in paragraph (3), by striking ''after December 31, 2020, and before January 1, 2022'' and inserting ''after December 31, 2025, and before January 1, 2027''.

(b) TERMINATION DATE EXTENDED.—Subsection (h) of section 25D of such Code is amended by striking ''December 31, 2021'' and inserting ''December 31, 2026''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after December 31, 2019.

**SEC. 115. DEPLOYMENT OF ENERGY EFFICIENT BUILDINGS THROUGH GRANTS.**

(a) ENERGY EFFICIENT PUBLIC BUILDINGS.—Section 125(c) of the Energy Policy Act of 2005 (42 U.S.C. 15822(c)) is amended by striking ''$30,000,000 for each of fiscal years 2006 through 2010'' and inserting ''$100,000,000 for each of fiscal years 2022 through 2026''.

(b) ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANT PROGRAM.—

(1) PURPOSE.—Section 542(b)(1) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17152(b)(1)) is amended—

(A) in subparagraph (A), by striking ''; and'' and inserting a semicolon;

(B) in subparagraph (B), by striking the semicolon and inserting ''; and''; and

(C) by adding at the end the following:

''(C) diversifies energy supplies, including by facilitating and promoting the use of alternative fuels;''.

(2) USE OF FUNDS.—Section 544(9) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17154(9)) is amended to read as follows:

''(9) deployment of energy distribution technologies that significantly increase energy efficiency or expand access to alternative fuels, including—

''(A) distributed resources;

''(B) district heating and cooling systems; and

''(C) infrastructure for delivering alternative fuels;''.

(3) COMPETITIVE GRANTS.—Section 546(c)(2) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17156(c)(2)) is amended by inserting '', including projects to expand the use of alternative fuels'' before the period at the end.

(4) FUNDING.—Section 548(a) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17158(a)) is amended to read as follows:

''(a) AUTHORIZATION OF APPROPRIATIONS.—

''(1) GRANTS.—There is authorized to be appropriated to the Secretary for the provision of grants under the program $3,500,000,000 for each of fiscal years 2022 through 2026.

''(2) ADMINISTRATIVE COSTS.—There is authorized to be appropriated to the Secretary for administrative expenses of the program $35,000,000 for each of fiscal years 2022 through 2026.''.

(5) TECHNICAL AMENDMENTS.—Section 543 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17153) is amended—

(A) in subsection (c), by striking ''subsection (a)(2)'' and inserting ''subsection (a)(3)''; and

(B) in subsection (d), by striking ''subsection (a)(3)'' and inserting ''subsection (a)(4)''.

(c) SMART FEDERAL BUILDING PROGRAM.—

(1) DEFINITIONS.—In this subsection:

(A) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(B) SMART BUILDING.—The term ''smart building'' means a building, or collection of buildings, with an energy system that—

(i) is flexible and automated;

(ii) has extensive operational monitoring and communication connectivity, allowing remote monitoring and analysis of all building functions;

(iii) takes a systems-based approach in integrating the overall building operations for control of energy generation, consumption, and storage;

(iv) communicates with utilities and other third-party commercial entities, if appropriate;

(v) protects the health and safety of occupants and workers; and

(vi) is cybersecure.

(2) ESTABLISHMENT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall, in consultation with the Administrator of General Services, establish a program, to be known as the Federal Smart Building Program—

(A) to implement smart building technology; and

(B) to demonstrate the costs and benefits of smart buildings.

(3) SELECTION.—

(A) IN GENERAL.—The Secretary shall coordinate the selection of not fewer than 1 building from among each of several key Federal agencies, as described in paragraph (5), to compose an appropriately diverse set of smart

buildings based on size, type, and geographic location.

(B) INCLUSION OF COMMERCIALLY OPERATED BUILDINGS.—In making selections under subparagraph (A), the Secretary may include buildings that are owned by the Federal Government but are commercially operated.

(4) TARGETS.—Not later than 18 months after the date of enactment of this Act, the Secretary shall establish targets for the number of smart buildings to be commissioned and evaluated by key Federal agencies described in paragraph (5) by 3 years and 6 years after the date of enactment of this Act.

(5) FEDERAL AGENCY DESCRIBED.—The key Federal agencies described in this subsection shall include buildings operated by—

(A) the Department of the Army;

(B) the Department of the Navy;

(C) the Department of the Air Force;

(D) the Department of Energy;

(E) the Department of the Interior;

(F) the Department of Veterans Affairs; and

(G) the General Services Administration.

(6) REQUIREMENT.—In implementing the program established under paragraph (2), the Secretary shall leverage existing financing mechanisms including energy savings performance contracts, utility energy service contracts, and annual appropriations.

(7) EVALUATION.—Using the guidelines of the Federal Energy Management Program relating to whole-building evaluation, measurement, and verification, the Secretary shall evaluate the costs and benefits of the buildings selected under paragraph (3), including an identification of—

(A) which advanced building technologies—

(i) are most cost-effective; and

(ii) show the most promise for—

(I) increasing energy savings;

(II) increasing service performance to building occupants;

(III) reducing environmental impacts; and

(IV) establishing cybersecurity; and

(B) any other information the Secretary determines to be appropriate.

(8) AWARDS.—The Secretary may expand awards made under the Federal Energy Management Program and the Better Building Challenge to recognize specific agency achievements in accelerating the adoption of smart building technologies.

# Subtitle C—Zero-Emission Electricity Generation Technology

## SEC. 121. DEPLOYMENT OF SOLAR AND WIND TECHNOLOGY THROUGH TAX CREDITS.

(a) ENERGY CREDIT FOR QUALIFIED OFFSHORE WIND FACILITIES.—

(1) IN GENERAL.—Subsection (a) of section 48 of the Internal Revenue Code is amended—

(A) in paragraph (2)(A)(i)—

(i) in subclause (III), by striking ''and'' at the end; and

(ii) by adding at the end the following new subclause:

''(V) qualified offshore wind property, and''; and

(B) in paragraph (3)(A)—

(i) in clause (vi), by striking ''or'' at the end;

(ii) in clause (vii), by adding ''or'' at the end; and

(iii) by adding at the end the following new clause:

''(viii) qualified offshore wind property, but only with respect to property the construction of which begins before January 1, 2028,''.

(2) QUALIFIED OFFSHORE WIND PROPERTY.—Subsection (c) of section 48 of such Code is amended by adding at the end the following new paragraph:

''(5) QUALIFIED OFFSHORE WIND PROPERTY.—

''(A) IN GENERAL.—The term 'qualified offshore wind property' means an offshore facility using wind to produce electricity.

''(B) OFFSHORE FACILITY.—The term 'offshore facility' means any facility located in the inland navigable waters of the United States, including the Great Lakes, or in the coastal waters of the United States, including the territorial seas of the United States, the exclusive economic zone of the United States, and the outer Continental Shelf of the United States.

''(C) EXCEPTION FOR QUALIFIED SMALL WIND ENERGY PROPERTY.—The term 'qualified

offshore wind property' shall not include any property described in paragraph (4).

''(D) SPECIAL RULE.—In the case of any property described in subparagraph (A) which was placed in service after December 31, 2016, and for which a credit under this section was allowed by reason of subsection (a)(5) in any taxable year which ends before or includes the date of the enactment of the Clean Energy Innovation and Deployment Act of 2020, notwithstanding any election under such subsection (a)(5), such property may be treated at the election of the taxpayer as qualified offshore wind property (and not as qualified property which is part of a qualified investment credit facility) for—

''(i) taxable years beginning on or after such date of enactment, and

''(ii) any taxable years ending before such date of enactment, including by filing an amended return.

Notwithstanding section 6501, an amended return may be filed for purposes of clause (ii) for any taxable year described in such clause.''.

(3) EFFECTIVE DATE.—The amendments made by this section shall take effect on the date of the enactment of this Act.

(b) EXTENSION AND PHASEOUT OF INVESTMENT TAX CREDIT.—

(1) EXTENSION OF INVESTMENT TAX CREDIT.—Section 48 of the Internal Revenue Code of 1986 is amended—

(A) in subsection (a)—

(i) in paragraph (2)(A)(i)(II), by striking ''January 1, 2022'' and inserting ''January 1, 2028'';

(ii) in paragraph (3)(A)—

(I) in clause (ii), by striking ''January 1, 2022'' and inserting ''January 1, 2028''; and

(II) in clause (vii), by striking ''January 1, 2022'' and inserting ''January 1, 2028''; and

(iii) in paragraph (5)(C)—

(I) in clause (i)—

(aa) by striking ''(2), (3), (4), (6), (7),''; and

(bb) by inserting ''and which is placed in service after 2008

and the construction of which begins before January 1, 2028'' after ''section 45(d)''; and

(II) in clause (ii), by inserting at the beginning of the clause ''which is a qualified facility (within the meaning of section 45) described in paragraph (2), (3), (4), (6), and (7) and''; and

(B) in subsection (c)—

(i) in paragraph (1)(D), by striking ''January 1, 2022'' and inserting ''January 1, 2028'';

(ii) in paragraph (2)(D), by striking ''January 1, 2022'' and inserting ''January 1, 2028'';

(iii) in paragraph (3)(A)(iv), by striking ''January 1, 2022'' and inserting ''January 1, 2028''; and

(iv) in paragraph (4)(C), by striking ''January 1, 2022'' and inserting ''January 1, 2028''.

(2) CREDIT TRANSFERABILITY FOR SOLAR INVESTMENT TAX CREDIT.—Section 48 of such Code

is further amended by adding at the end the following new subsections:

''(e) TRANSFERABILITY.—If a taxpayer elects to transfer all (or any portion specified in the election) of the credit determined under this section for an energy property described in subsection (a)(5) or (a)(6) for any taxable year to an eligible project partner for a specified period, then the eligible project partner specified in such election (and not the taxpayer) shall be treated for purposes of this title with respect to such credit (or such portion thereof) as the person entitled to such credit (or portion thereof).

''(f) ELIGIBLE PROJECT PARTNER.—

''(1) IN GENERAL.—For purposes of this paragraph, the term 'eligible project partner' means, with respect to any energy property described in subsection (a)(5) or (a)(6), any person who—

''(A) has an ownership interest in such energy property,

''(B) provided equipment for or services in the construction of such energy property,

''(C) provides electric transmission or distribution services for such energy property,

''(D) purchases electricity from such energy property pursuant to a contract, or

''(E) provides financing for such energy property.

''(2) SPECIAL RULE.—For purposes of paragraph (1)(E), any amount paid as consideration for a transfer described in subsection (e) shall not be treated as financing of a qualified facility.

''(g) TAXABLE YEAR IN WHICH CREDIT TAKEN INTO ACCOUNT.—In the case of any credit (or portion thereof) with respect to which an election is made under subsection (e), such credit shall be taken into account in the first taxable year of the eligible project partner ending with, or after, the electing taxpayer's taxable year with respect to which the credit was determined.

''(h) LIMITATIONS ON ELECTION.—

''(1) TIME FOR ELECTION.—An election under subsection (e) to transfer any portion of the credit allowed under this section shall be made not later than the due date for the return of tax for the electing taxpayer's taxable year with respect to which the credit was determined.

''(2) NO FURTHER TRANSFERS.—No election may be made under subsection (e) by a taxpayer with respect to any portion of the credit allowed under this section which has been previously transferred to such taxpayer.

''(3) TREATMENT OF TRANSFER UNDER PRIVATE USE RULES.—For purposes of section 141(b)(1), any benefit derived by an eligible project partner in connection with an election under subsection (e) shall not be taken into account as a private business use.

''(4) ADDITIONAL ELECTION REQUIREMENTS.—The Secretary may prescribe such regulations as may be appropriate to carry out the purposes of this section, including—

''(A) rules for determining which persons are eligible project partners with respect to any energy property, and

''(B) requiring information to be included in an election under subparagraph (A) or imposing additional reporting requirements.

''(i) SPECIAL RULES.—

''(1) In the case of a taxpayer making an election under this section, the credit subject to such an election shall be determined notwithstanding—

''(A) section 50(b)(3); and

''(B) section 50(b)(4) for an entity described in 50(b)(4)(A)(i).

''(2) In the case of a mutual or cooperative electric company described in this paragraph or an

organization described in section 1381(a)(2), income received or accrued in connection with the transfer of credit under this section shall be treated as an amount collected from members for the sole purpose of meeting losses and expenses.

''(j) TERMINATION.—This section shall apply to taxable years ending before January 1, 2050.''.

(3) PHASEOUTS.—

(A) SOLAR ENERGY PROPERTY.—Section 48(a)(6) of such Code is amended—

(i) in subparagraph (A)—

(I) by striking ''January 1, 2022, the energy percentage'' and inserting ''January 1, 2028, the energy percentage'';

(II) in clause (i), by striking ''after December 31, 2019, and before January 1, 2021'' and inserting ''after December 31, 2020, and before January 1, 2027''; and

(III) in clause (ii), by striking ''after December 31, 2020, and before January 1, 2022'' and inserting ''after December 31, 2021, and before January 1, 2027''; and

(ii) in subparagraph (B), by striking ''begins before January 1, 2022, and which is not placed in service before January 1, 2024'' and inserting ''begins before January 1, 2028, and which is not placed in service before January 1, 2030''.

(B) FIBER-OPTIC SOLAR, QUALIFIED FUEL CELL, AND QUALIFIED SMALL WIND ENERGY PROPERTY.—Section 48(a)(7) of such Code is amended—

(i) in subparagraph (A)—

(I) in clause (i), by striking ''after December 31, 2019, and before January 1, 2021'' and inserting ''after December 31, 2020, and before January 1, 2027''; and

(II) in clause (ii), by striking ''after December 31, 2020, and before January 1, 2022'' and inserting ''after December 31, 2021, and before January 1, 2027''; and

(ii) in subparagraph (B), by striking ''January 1, 2024'' and inserting ''January 1, 2030''.

(c) EXTENSION OF PRODUCTION TAX CREDIT.—

(1) WIND.—Section 45(d)(1) of the Internal Revenue Code of 1986 is amended by striking ''January 1, 2021'' and inserting ''January 1, 2028''.

(2) HYDROPOWER, MARINE AND HYDROKINETIC.—Section 45(d)(9)(a)(i) and (ii) and Section 45(d)(11)(B) of the Internal Revenue Code of 1986 is amended by striking ''January 1, 2021'' and inserting ''January 1, 2028''.

(3) APPLICATION OF PHASEOUT PERCENTAGE.—Section 45(b)(5)(D) of the Internal Revenue Code of 1986 is amended by striking ''January 1, 2021'' and inserting ''January 1, 2028''.

(4) TREATMENT AS ENERGY PROPERTY.—Section 48(a)(5)(E) of the Internal Revenue Code of 1986 is amended by striking ''January 1, 2021'' and inserting ''January 1, 2028''.

(5) CREDIT TRANSFERABILITY FOR WIND PRODUCTION TAX CREDIT.—Section 45 of the Internal Revenue Code of 1986 is amended by adding at the end the following:

''(f) TRANSFERABILITY.—If the taxpayer elects to transfer all (or any portion specified in the election) of the credit determined under this section for any taxable year with respect to any qualified facility as defined in subsection (d)(1) to an eligible project partner for a speci-

fied period, then, the eligible project partner specified in such election (and not the taxpayer) shall be treated for purposes of this title with respect to such credit (or such portion thereof) as the person producing and selling the electricity to which such credit (or portion thereof) relates.

''(g) ELIGIBLE PROJECT PARTNER.—

''(1) IN GENERAL.—For purposes of this section, the term 'eligible project partner' means, with respect to any qualified facility as defined in subsection (d)(1), any person who—

''(A) has an ownership interest in such qualified facility,

''(B) provided equipment for or services in the construction of such qualified facility,

''(C) provides electric transmission or distribution services for such qualified facility,

''(D) purchases electricity from such qualified facility pursuant to a contract, or

''(E) provides financing for such qualified facility.

''(2) SPECIAL RULE.—For purposes of paragraph (1)(E), any amount paid as consideration for a transfer described in subsection (f) shall not be treated as financing of a qualified facility.

''(h) TAXABLE YEAR IN WHICH CREDIT TAKEN INTO ACCOUNT.—In the case of any credit (or portion thereof) with respect to which an election is made under subsection (f), such credit shall be taken into account in the first taxable year of the eligible project partner ending with, or after, the electing taxpayer's taxable year with respect to which the credit was determined.

''(i) LIMITATIONS ON ELECTION.—

''(1) TIME FOR ELECTION.—An election under subsection (f) to transfer any portion of the credit allowed under this section shall be made not later than the due date for the return of tax for the electing taxpayer's taxable year with respect to which the credit was determined.

''(2) NO FURTHER TRANSFERS.—No election may be made under subsection (f) by a taxpayer with respect to any portion of the credit allowed under this section which has been previously transferred to such taxpayer under this paragraph.

''(3) TREATMENT OF TRANSFER UNDER PRIVATE USE RULES.—For purposes of section 141(b)(1), any benefit derived by an eligible project partner in connection with an election under this section shall not be taken into account as a private business use.

''(4) ADDITIONAL ELECTION REQUIREMENTS.—The Secretary may prescribe such regulations as may be appropriate to carry out the purposes of this section, including—

''(A) rules for determining which persons are eligible project partners with respect to any energy property, and

''(B) requiring information to be included in an election under subsection (f) or imposing additional reporting requirements.

''(j) TERMINATION.—This section shall apply to taxable years ending before January 1, 2050.''.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after December 31, 2020.

**SEC. 122. ENERGY TAX CREDIT MONETIZATION.**

(a) IN GENERAL.—Subchapter B of chapter 65 of the Internal Revenue Code of 1986 is amended by adding at the end the following new section:

**''SEC. 6431. ELECTIVE PAYMENT FOR ENERGY PROPERTY AND ELECTRICITY PRODUCED FROM CERTAIN RENEWABLE RESOURCES, ETC.**

''(a) ENERGY PROPERTY.—In the case of a taxpayer making an election (at such time and in such manner as

the Secretary may provide) under this section with respect to—

"(1) any portion of an energy credit which would (without regard to this section) be determined under section 48 with respect to property originally placed in service after December 31, 2019 and before January 1, 2025,

"(2) any portion of a renewable electricity production credit which would (without regard to this section) be determined under section 45 with respect to property originally placed in service after December 31, 2019 and before January 1, 2025, or

"(3) any portion of a credit carryforward to the extent attributable to section 48 or section 45 that is allowed under section 38(a)(1) (determined without regard to section 38(c)) for taxable years ending after December 31, 2019 and before January 1, 2025,

such taxpayer shall be treated as making a payment against the tax imposed by subtitle A for the taxable year equal to 85 percent of such amount.

"(b) TIMING.—The payment described in subsection (a) shall be treated as made on the later of the due date of the return of tax (determined without extensions) for such taxable year or the date on which such return is filed.

''(c) EXCLUSION FROM GROSS INCOME.—Gross income of the taxpayer shall be determined without regard to this section.

''(d) DENIAL OF DOUBLE BENEFIT.—Solely for purposes of section 38, in the case of a taxpayer making an election under this section, the energy credit determined under section 48 or the renewable electricity production credit determined under section 45 shall be reduced by the amount of the portion of such credit with respect to which the taxpayer makes such election.

''(e) SPECIAL RULES.—

''(1) In the case of a taxpayer making an election under this section, the credit subject to such an election shall be determined notwithstanding—

''(A) section 50(b)(3); and

''(B) section 50(b)(4) for an entity described in 50(b)(4)(A)(i).

''(2) In the case of a mutual or cooperative electric company described in this paragraph or an organization described in section 1381(a)(2), income received or accrued in connection with the refunding or direct payment of credit under this section shall be treated as an amount collected from members for the sole purpose of meeting losses and expenses.''.

(b) CLERICAL AMENDMENT.—The table of sections for subchapter B of chapter 65 of such Code is amended by adding at the end the following new item:

"Sec. 6431. Elective payment for energy property and electricity produced from certain renewable resources, etc.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years ending after the date of the enactment of this Act.

**SEC. 123. INNOVATION IN ENERGY STORAGE THROUGH RESEARCH, DEVELOPMENT, AND DEMONSTRATION.**

(a) IN GENERAL.—The United States Energy Storage Competitiveness Act of 2007 (42 U.S.C. 17231) is amended—

(1) by redesignating subsections (l) through (p) as subsections (m) through (q), respectively; and

(2) by inserting after subsection (k) the following:

"(l) GRID-SCALE ENERGY STORAGE SYSTEM RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.—

"(1) DEFINITIONS.—In this subsection:

"(A) ENERGY STORAGE SYSTEM.—The term 'energy storage system' means a system, equipment, facility, or technology that—

"(i) is capable of absorbing energy, storing that energy for a period of time, and dispatching the stored energy; and

"(ii)(I) uses a mechanical, electrical, chemical, electrochemical, or thermal process to store energy that—

"(aa) was generated at an earlier time for use at a later time; or

"(bb) was generated from a mechanical process, and would otherwise be wasted, for delivery at a later time; or

"(II) stores thermal energy for direct use for heating or cooling at a later time in a manner that avoids the need to use electricity at that later time, in the same manner as the storage and use offered by a grid-enabled water heater.

"(B) PROGRAM.—The term 'program' means the research, development, and demonstration program established under paragraph (2)(A).

"(2) ESTABLISHMENT.—

"(A) IN GENERAL.—Not later than 180 days after the date of enactment of this Act,

the Secretary shall establish within the Office of Electricity of the Department of Energy a research, development, and demonstration program of grid-scale energy storage systems, in accordance with this subsection.

''(B) GOALS, PRIORITIES, COST TARGETS.—Not later than 180 days after the date of enactment of this Act, The Secretary shall develop goals, priorities, and cost targets for the program.

''(3) STRATEGIC PLAN.—

''(A) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a 10-year strategic plan for the program.

''(B) CONTENTS.—The strategic plan submitted under subparagraph (A) shall—

''(i) identify Department of Energy programs that support—

''(I) the research and development activities described in paragraph

(4) and the demonstration projects under paragraph (6); and

''(II) activities or projects not described in subclause (I) that are important to the development of grid-scale energy storage systems and the mission of the Office of Electricity of the Department of Energy, as determined by the Secretary; and

''(ii) include expected timelines for—

''(I) the accomplishment of relevant objectives under current programs of the Department of Energy relating to grid-scale energy storage systems; and

''(II) the commencement of any new initiatives within the Department of Energy relating to grid-scale energy storage systems to accomplish those objectives.

''(C) UPDATES TO PLAN.—Not less frequently than once every 2 years, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of

the House of Representatives an updated strategic plan for the same 10-year period as the plan under subparagraph (A), which shall identify, and provide a justification for, any major deviation from a previous strategic plan submitted under this paragraph.

''(4) RESEARCH AND DEVELOPMENT.—In carrying out the program, the Secretary shall focus research and development activities on developing cost-effective energy storage systems that—

''(A)(i) to balance day-scale needs, are capable of highly flexible power output for not less than 6 hours; and

''(ii) have a lifetime of—

''(I) not less than 8,000 cycles of discharge at full output; and

''(II) 20 years of useful-life operation;

''(B)(i) can provide power to the electric grid for durations of approximately 6 to 100 hours; and

''(ii) have a lifetime of—

''(I) not less than 1,500 cycles of discharge at full output; and

''(II) 20 years of operation; and

''(C) can store energy over several months and address seasonal scale variations in supply and demand.

''(5) COST TARGETS.—

''(A) IN GENERAL.—Cost targets developed by the Secretary under paragraph (2)(B) shall—

''(i) be for energy storage costs across all types of energy storage technology; and

''(ii) include technology costs, installation costs, balance of services costs, and soft costs.

''(B) TARGET UPDATES; SUBTARGETS.—Not less frequently than once every 5 years during the 10-year period beginning on the date of enactment of the Act, the Secretary shall—

''(i) revise the cost targets developed under paragraph (2)(B) based on—

''(I) a technology-neutral approach that considers all types of energy storage deployment scenarios, including individual technologies, technology combination use profiles, and integrated control system applications;

''(II) input from a variety of stakeholders;

''(III) the inclusion and use of existing infrastructure; and

''(IV) the ability to optimize the integration of intermittent renewable energy generation technology and distributed energy resources; and

''(ii) establish cost subtargets for technologies and applications relating to the energy storage systems described in paragraph (4), taking into consideration—

''(I) electricity market prices; and

''(II) the goal of being cost-competitive in specific markets for electric grid products and services.

''(6) DEMONSTRATION PROJECTS.—

''(A) IN GENERAL.—Not later than September 30, 2023, under the program, the Secretary shall, to the maximum extent practicable, enter into agreements to carry out not more than 5 grid-scale energy storage system demonstration projects, including at least one in which an electric cooperative is a participant and at least one in which a retail electricity

supplier that is a State, or any political subdivision of a State is a participant.

''(B) OBJECTIVE.—Each demonstration project carried out under subparagraph (A) shall be designed to further the development of the energy storage systems described in paragraph (4).

''(C) NO OWNERSHIP INTEREST.—The Federal Government shall not hold any equity or other ownership interest in any grid-scale energy storage system that is part of a demonstration project under this paragraph.

''(7) TESTING AND VALIDATION.—The Secretary shall accelerate the standardized testing and validation of grid-scale energy storage systems under the program through collaboration with one or more National Laboratories (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801)), including by developing testing and evaluation methodologies for—

''(A) standardized grid performance testing for energy storage systems, materials, and technologies during each stage of development, beginning with the research stage and ending with the deployment stage, including performance

testing with charge and discharge protocols to evaluate power capability, energy output, and degradation during cycling and calendar aging on earliest stage commercially viable prototypes (commonly less than 100 kilowatts); and

''(B) accelerated life testing protocols to predict estimated lifetime metrics with accuracy.

''(8) COORDINATION.—To accelerate the development of grid-scale energy storage systems under the program the Secretary shall coordinate with—

''(A) offices within the Department of Energy conducting energy storage research, such as the Advanced Research Projects Agency–Energy, the Office of Science, and the Office of Energy Efficiency and Renewable Energy;

''(B) Federal agencies that are carrying out initiatives to increase energy security or reliability, such as the Department of Defense, the National Science Foundation, the Federal Energy Regulatory Commission, and the Department of Homeland Security;

''(C) program offices that aim to increase domestic manufacturing and production, such as the Office of Advanced Manufacturing in the

Department of Energy and the National Institute of Standards and Technology in the Department of Commerce; and

''(D) members of private industry to advance the development of commercially viable grid-scale energy storage systems.''.

(b) AUTHORIZATION OF APPROPRIATIONS.—The United States Energy Storage Competitiveness Act of 2007 (42 U.S.C. 17231) is amended, in subsection (q) (as redesignated by subsection (a)(1))—

(1) in paragraph (5), by striking ''and'' at the end;

(2) in paragraph (6), by striking the period at the end and inserting ''; and''; and

(3) by adding at the end the following:

''(7) the research, development, and demonstration program of grid-scale energy storage systems under subsection (l) $60,000,000 for each of fiscal years 2021 through 2024.''.

**SEC. 124. DEPLOYMENT OF ENERGY STORAGE THROUGH TAX CREDITS.**

(a) ENERGY CREDIT FOR ENERGY STORAGE TECHNOLOGIES.—

(1) IN GENERAL.—Subclause (II) of section 48(a)(2)(A)(i) of the Internal Revenue Code of 1986

is amended by striking ''paragraph (3)(A)(i)'' and inserting ''clause (i) or (ix) of paragraph (3)(A)''.

(2) ENERGY STORAGE TECHNOLOGIES.—Subparagraph (A) of section 48(a)(3) of the Internal Revenue Code of 1986, as amended by section 121, is amended by striking ''or'' at the end of clause (vii), by adding ''or'' at the end of clause (viii), and by adding at the end the following new clause:

''(ix) equipment which receives, stores, and delivers energy using batteries, compressed air, pumped hydropower, hydrogen storage (including hydrolysis), thermal energy storage, regenerative fuel cells, flywheels, capacitors, superconducting magnets, or other technologies identified by the Secretary in consultation with the Secretary of Energy, and which has a capacity of not less than 5 kilowatt hours,''.

(3) PHASEOUT OF CREDIT.—Paragraph (6) of section 48(a) of the Internal Revenue Code of 1986 is amended—

(A) by striking ''ENERGY'' in the heading and inserting ''AND ENERGY STORAGE''; and

(B) by striking ''paragraph (3)(A)(i)'' both places it appears and inserting ''clause (i) or (ix) of paragraph (3)(A)''.

(4) EFFECTIVE DATE.—The amendments made by this subsection shall apply to property placed in service after December 31, 2019.

(b) RESIDENTIAL ENERGY EFFICIENT PROPERTY CREDIT FOR BATTERY STORAGE TECHNOLOGY.—

(1) IN GENERAL.—Subsection (a) of section 25D of the Internal Revenue Code of 1986 is amended by striking ''and'' at the end of paragraph (4), by inserting ''and'' after the comma at the end of paragraph (5), and by inserting after paragraph (5) the following new paragraph:

''(6) the qualified battery storage technology expenditures,''.

(2) QUALIFIED BATTERY STORAGE TECHNOLOGY EXPENDITURE.—Subsection (d) of section 25D of the Internal Revenue Code of 1986 is amended by adding at the end the following new paragraph:

''(6) QUALIFIED BATTERY STORAGE TECHNOLOGY EXPENDITURE.—The term 'qualified battery storage technology expenditure' means an expenditure for battery storage technology which—

''(A) is installed on or in connection with a dwelling unit located in the United States and used as a residence by the taxpayer, and

''(B) has a capacity of not less than 3 kilowatt hours.''.

(3) EFFECTIVE DATE.—The amendments made by this subsection shall apply to expenditures paid or incurred in taxable years beginning after December 31, 2018.

**SEC. 125. NORMALIZATION OPT-OUT FOR UTILITIES.**

Paragraph (2) of section 50(d) of the Internal Revenue Code of 1986 is amended by adding after the first sentence the following: ''At the election of a taxpayer, this paragraph shall not apply to energy property described in clause (i) or (ix) of section 48(a)(3)(A) that is placed in service by the taxpayer after December 31, 2019, provided—

''(A) no election under this paragraph shall be permitted if the making of such election is prohibited by, or required by, a State or political subdivision thereof, by any agency or instrumentality of the United States, or by a public service or public utility commission or other similar body of any State or political subdivi-

sion that regulates public utilities as described in section 7701(a)(33)(A), and

''(B) an election under this paragraph shall be made separately with respect to each energy property by the due date (including extensions) of the Federal tax return for the taxable year in which such property is placed in service by the taxpayer, and once made, may be revoked only with the consent of the Secretary.''.

**SEC. 126. DEPLOYMENT OF CARBON CAPTURE UTILIZATION AND STORAGE THROUGH TAX CREDITS.**

Section 45Q(d)(1) of the Internal Revenue Code of 1986 is amended by striking ''January 1, 2024'' and inserting ''December 31, 2029''.

**SEC. 127. INNOVATION IN ADVANCED NUCLEAR TECHNOLOGY THROUGH DEMONSTRATION.**

(a) FINDINGS.—Congress finds that—

(1) the national security nuclear enterprise, which supports the nuclear weapons stockpile stewardship and naval reactors functions of the National Nuclear Security Administration, requires a domestic source of low- and high-enriched uranium due to legal restrictions regarding foreign obligations relating to the beginning stage of the nuclear fuel cycle;

(2) many domestic advanced nuclear power industry participants require access to high-assay, low-enriched uranium fuel for—

(A) operation of demonstration reactors; and

(B) initial fuel testing;

(C) commercial operation of advanced nuclear reactors;

(3) as of the date of enactment of this Act, no domestic uranium enrichment or fuel fabrication capability exists for uranium fuel enriched to greater than 5 weight percent of the uranium-235 isotope;

(4) a healthy commercial nuclear fuel cycle capable of providing higher levels of enriched uranium would benefit—

(A) the relevant national security functions of the National Nuclear Security Administration; and

(B) the domestic advanced nuclear industry of the United States; and

(5) making limited quantities of high-assay, low-enriched uranium available from Department of Energy stockpiles of uranium would allow for initial fuel testing and demonstration of advanced nuclear reactor concepts, accelerating—

(A) the path to market of those concepts; and

(B) the development of—

(i) a market for advanced nuclear reactors; and

(ii) a resulting growing commercial nuclear fuel cycle capability.

(b) NUCLEAR REACTOR DEMONSTRATION PROJECT.—

(1) IN GENERAL.—Subtitle E of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16271 et seq.) is amended by adding at the end the following:

**"SEC. 959A. ADVANCED NUCLEAR REACTOR RESEARCH AND DEVELOPMENT GOALS.**

''(a) DEFINITIONS.—In this section:

''(1) ADVANCED NUCLEAR REACTOR.—The term 'advanced nuclear reactor' means—

''(A) a nuclear fission reactor, including a prototype plant (as defined in sections 50.2 and 52.1 of title 10, Code of Federal Regulations (or successor regulations)), with significant improvements compared to the most recent generation of fission reactors, including improvements such as—

''(i) additional inherent safety features;

''(ii) lower waste yields;

''(iii) improved fuel performance;

''(iv) increased tolerance to loss of fuel cooling;

''(v) enhanced reliability;

''(vi) increased proliferation resistance;

''(vii) increased thermal efficiency;

''(viii) reduced consumption of cooling water;

''(ix) the ability to integrate into electric applications and nonelectric applications;

''(x) modular sizes to allow for deployment that corresponds with the demand for electricity; and

''(xi) operational flexibility to respond to changes in demand for electricity and to complement integration with intermittent renewable energy; or

''(B) a nuclear fusion reactor.

''(2) DEMONSTRATION PROJECT.—The term 'demonstration project' means an advanced nuclear reactor operated—

''(A) as part of the power generation facilities of an electric utility system; or

''(B) in any other manner for the purpose of demonstrating the suitability for commercial application of the advanced nuclear reactor for the generation of electricity or other useful energy output.

''(b) PURPOSE.—The purpose of this section is to direct the Secretary, as soon as practicable after the date of enactment of this section, to advance the research and development of domestic advanced, affordable, and clean nuclear energy by—

''(1) demonstrating different advanced nuclear reactor technologies that could be used by the electric power sector to produce—

''(A) emission-free power at a levelized cost of electricity of $60 per megawatt-hour or less;

''(B) heat for community heating, industrial purposes, or synthetic fuel production;

''(C) remote or off-grid energy supply; or

''(D) backup or mission-critical power supplies;

''(2) developing subgoals for nuclear energy research programs that would accomplish the goals of the demonstration projects carried out under subsection (c);

''(3) identifying research areas that the electric power sector is unable or unwilling to undertake due to the cost of, or risks associated with, the research; and

''(4) facilitating the access of the electric power sector—

''(A) to Federal research facilities and personnel; and

''(B) to the results of research relating to civil nuclear technology funded by the Federal Government.

''(c) DEMONSTRATION PROJECTS.—

''(1) IN GENERAL.—The Secretary shall, to the maximum extent practicable—

''(A) complete not fewer than two advanced nuclear reactor demonstration projects by not later than December 31, 2030; and

''(B) establish a program to demonstrate not fewer than two, and not more than five, additional operational advanced reactor designs by not later than December 31, 2035.

''(2) REQUIREMENTS.—In carrying out demonstration projects under paragraph (1), the Secretary shall—

''(A) include diversity in designs for the advanced nuclear reactors demonstrated under this section, including designs using various—

''(i) primary coolants;

''(ii) fuel types and compositions; and

''(iii) neutron spectra;

''(B) seek to ensure that—

''(i) the long-term cost of electricity or heat for each design to be demonstrated under this subsection has the capability of being cost-competitive in the applicable market; and

''(ii) the selected projects can meet the deadline established in paragraph (1) to demonstrate first-of-a-kind advanced nuclear reactor technologies, for which additional information shall be considered, including—

''(I) the readiness level of a proposed advanced nuclear reactor technology;

''(II) the technical abilities and qualifications of teams desiring to partner with the Department to demonstrate a proposed advanced nuclear reactor technology; and

''(III) the capacity to meet cost-share requirements of the Department;

''(C) ensure that each evaluation of candidate technologies for the demonstration projects is completed through an external review of proposed designs, which review shall—

''(i) be conducted by a panel that includes not fewer than 1 representative of each of—

''(I) an electric utility; and

''(II) an entity that uses high-temperature process heat for manufacturing or industrial processing, such as a petrochemical company, a manufacturer of metals, or a manufacturer of concrete; and

''(ii) include a review of cost-competitiveness and other value streams, together with the technology readiness level, of each

design to be demonstrated under this subsection;

''(D) enter into cost-sharing agreements with partners in accordance with section 988 for the conduct of activities relating to the research, development, and demonstration of private-sector advanced nuclear reactor designs under the program;

''(E) work with electric power sector partners to identify potential sites, including Department-owned sites, for demonstrations, as appropriate; and

''(F) align specific activities carried out under demonstration projects carried out under this subsection with priorities identified through direct consultations between—

''(i) the Department;

''(ii) National Laboratories;

''(iii) institutions of higher education;

''(iv) traditional end-users (such as electric utilities);

''(v) potential end-users of new technologies (such as users of high-temperature process heat for manufacturing processing, including petrochemical companies,

manufacturers of metals, or manufacturers of concrete); and

''(vi) developers of advanced nuclear reactor technology.

''(3) ADDITIONAL REQUIREMENTS.—In carrying out demonstration projects under paragraph (1), the Secretary shall—

''(A) identify candidate technologies that—

''(i) are not developed sufficiently for demonstration within the initial required timeframe described in paragraph (1)(A); but

''(ii) could be demonstrated within the timeframe described in paragraph (1)(B);

''(B) identify technical challenges to the candidate technologies identified in subparagraph (A);

''(C) support near-term research and development to address the highest-risk technical challenges to the successful demonstration of a selected advanced reactor technology, in accordance with—

''(i) subparagraph (B); and

''(ii) the research and development activities under section 958; and

''(D) establish such technology advisory working groups as the Secretary determines to be appropriate to advise the Secretary regarding the technical challenges identified under subparagraph (B) and the scope of research and development programs to address the challenges, in accordance with subparagraph (C), to be comprised of—

''(i) private-sector advanced nuclear reactor technology developers;

''(ii) technical experts with respect to the relevant technologies at institutions of higher education; and

''(iii) technical experts at the National Laboratories.

''(d) GOALS.—

''(1) IN GENERAL.—The Secretary shall establish goals for research relating to advanced nuclear reactors facilitated by the Department that support the objectives of the program for demonstration projects established under subsection (c).

''(2) COORDINATION.—In developing the goals under paragraph (1), the Secretary shall coordinate, on an ongoing basis, with members of private indus-

try to advance the demonstration of various designs of advanced nuclear reactors.

"(3) REQUIREMENTS.—In developing the goals under paragraph (1), the Secretary shall ensure that—

"(A) research activities facilitated by the Department to meet the goals developed under this subsection are focused on key areas of nuclear research and deployment ranging from basic science to full-design development, safety evaluation, and licensing;

"(B) research programs designed to meet the goals emphasize—

"(i) resolving materials challenges relating to extreme environments, including extremely high levels of—

"(I) radiation fluence;

"(II) temperature;

"(III) pressure; and

"(IV) corrosion; and

"(ii) qualification of advanced fuels;

"(C) activities are carried out that address near-term challenges in modeling and simulation to enable accelerated design and licensing;

"(D) related technologies, such as technologies to manage, reduce, or reuse nuclear waste, are developed;

"(E) nuclear research infrastructure is maintained or constructed, such as—

"(i) currently operational research reactors at the National Laboratories and institutions of higher education;

"(ii) hot cell research facilities;

"(iii) a versatile fast neutron source; and

"(iv) a molten salt testing facility;

"(F) basic knowledge of non-light water coolant physics and chemistry is improved;

"(G) advanced sensors and control systems are developed; and

"(H) advanced manufacturing and advanced construction techniques and materials are investigated to reduce the cost of advanced nuclear reactors.

"(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $300,000,000 for each of fiscal years 2021 through 2035.".

(2) TABLE OF CONTENTS.—The table of contents for the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 594) is further amended by inserting after the item relating to section 959 the following:

''Sec. 959A. Advanced nuclear reactor research and development goals.''.

(3) CONFORMING AMENDMENT.—Section 951(b)(1) of the Energy Policy Act of 2005 (42 U.S.C. 16271(b)(1)) is amended by striking ''The term'' and inserting ''Except as provided in section 959A, the term''.

(c) LONG-TERM NUCLEAR POWER PURCHASE AGREEMENT PILOT PROGRAM.—

(1) IN GENERAL.—Subtitle B of title VI of the Energy Policy Act of 2005 (Public Law 109–58) is amended by adding at the end the following:

**''SEC. 640. LONG-TERM NUCLEAR POWER PURCHASE AGREEMENT PILOT PROGRAM.**

''(a) ESTABLISHMENT.—The Secretary shall establish a pilot program for a long-term nuclear power purchase agreement.

''(b) REQUIREMENTS.—In developing the pilot program under this section, the Secretary shall—

''(1) consult and coordinate with the heads of other Federal departments and agencies that may

benefit from purchasing nuclear power for a period of longer than 10 years, including—

"(A) the Secretary of Defense; and

"(B) the Secretary of Homeland Security; and

"(2) not later than December 31, 2023, enter into at least 1 agreement to purchase power from a commercial nuclear reactor that receives the first license for that reactor from the Nuclear Regulatory Commission after January 1, 2021.

"(c) FACTORS FOR CONSIDERATION.—

"(1) IN GENERAL.—In carrying out this section, the Secretary shall give special consideration to power purchase agreements for first-of-a-kind or early deployment nuclear technologies that can provide reliable and resilient power to high-value assets for national security purposes or other purposes as the Secretary determines to be in the national interest, especially in remote off-grid scenarios or grid-connected scenarios that can provide capabilities commonly known as 'islanding power capabilities' during an emergency scenario.

"(2) EFFECT ON RATES.—An agreement to purchase power under this section may be at a rate that is higher than the average market rate, if the

agreement fulfills an applicable consideration described in paragraph (1).''.

(2) TABLE OF CONTENTS.—The table of contents for the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 594) is further amended by inserting after the item relating to section 639 the following:

''Sec. 640. Long-term nuclear power purchase agreement pilot program.''.

(d) NUCLEAR STRATEGIC PLAN.—

(1) IN GENERAL.—Subtitle E of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16271 et seq.) is further amended by adding at the end the following:

**''SEC. 959B. NUCLEAR ENERGY STRATEGIC PLAN.**

''(a) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Secretary shall submit to the Committees on Energy and Commerce and Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a 10-year strategic plan for the Office of Nuclear Energy of the Department, in accordance with this section.

''(b) REQUIREMENTS.—

''(1) COMPONENTS.—The strategic plan under this section shall designate—

''(A) programs that support the planned accomplishment of—

''(i) the goals established under section 959A; and

''(ii) the demonstration programs identified under subsection (c) of that section; and

''(B) programs that—

''(i) do not support the planned accomplishment of demonstration programs, or the goals, referred to in subparagraph (A); but

''(ii) are important to the mission of the Office of Nuclear Energy, as determined by the Secretary.

''(2) PROGRAM PLANNING.—In developing the strategic plan under this section, the Secretary shall specify expected timelines for, as applicable—

''(A) the accomplishment of relevant objectives under current programs of the Department; or

''(B) the commencement of new programs to accomplish those objectives.

''(c) UPDATES.—Not less frequently than once every 2 years, the Secretary shall submit to the Committees on

Energy and Commerce and Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate an updated strategic plan in accordance with subsection (b), which shall identify, and provide a justification for, any major deviation from a previous strategic plan submitted under this section.''.

(2) TABLE OF CONTENTS.—The table of contents for the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 594) is further amended by inserting after the item relating to section 959A the following:

''Sec. 959B. Nuclear energy strategic plan.''.

**SEC. 128. INNOVATION IN CARBON REMOVAL, UTILIZATION, AND STORAGE THROUGH RESEARCH, DEVELOPMENT, AND DEMONSTRATION.**

(a) CARBON REMOVAL.—

(1) IN GENERAL.—Subtitle F of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16291 et seq.) is amended by adding at the end the following:

**''SEC. 969. CARBON REMOVAL.**

''(a) ESTABLISHMENT.—The Secretary, in coordination with the Secretary of Agriculture, and in consultation with the Secretary of the Interior and the Administrator of the Environmental Protection Agency, shall establish a research, development, and demonstration program (re-

ferred to in this section as the 'program') to test, validate, or improve technologies and strategies to remove carbon dioxide from the atmosphere on a large scale.

''(b) CROSS-CUTTING DIRECTION.—The Secretary shall ensure that the program—

''(1) is cross-cutting in nature; and

''(2) includes the coordinated participation of the Office of Fossil Energy, the Office of Science, and the Office of Energy Efficiency and Renewable Energy.

''(c) PROGRAM ACTIVITIES.—The program may include research, development, and demonstration activities relating to—

''(1) direct air capture and storage technologies;

''(2) bioenergy with carbon capture and sequestration;

''(3) enhanced geological weathering;

''(4) agricultural and grazing practices;

''(5) forest management and afforestation;

''(6) conservation and restoration of tidal marshes, mangroves, and seagrasses; and

''(7) planning and management of other types of natural and artificial carbon sinks.

''(d) REQUIREMENTS.—In developing and identifying carbon removal technologies and strategies under the program, the Secretary shall consider—

''(1) the potential for carbon removal or reduction on a gigaton scale;

''(2) the extent to which the carbon storage can be made permanent;

''(3) net greenhouse gas emissions;

''(4) ocean acidification;

''(5) land use changes, including impacts on natural and managed ecosystems;

''(6) other potential impacts to human health and safety and the environment;

''(7) commercial viability;

''(8) economic co-benefits; and

''(9) the impacts described in paragraphs (1) through (8) in both the near-term and the long-term.''.

(2) TECHNICAL AMENDMENT.—The table of contents for the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 600) is amended by adding at the end of the items relating to subtitle F of title IX the following:

''Sec. 969. Carbon removal.''.

(b) FOSSIL ENERGY.—Section 961(a) of the Energy Policy Act of 2005 (42 U.S.C. 16291(a)) is amended—

(1) in paragraph (6), by inserting ", including technology development to reduce emissions of carbon dioxide and associated emissions of heavy metals and other toxic substances within coal combustion residues and gas streams resulting from fossil fuel use and production'' before the period at the end; and

(2) by striking paragraph (7) and inserting the following:

''(7) Increasing the export of fossil energy-related equipment, technology, including carbon removal and utilization technologies, and services from the United States.

''(8) Developing carbon removal and utilization technologies, products, and methods that result in net reductions in greenhouse gas emissions, including direct air capture and storage, and carbon use and reuse for commercial application.

''(9) Improving the conversion, use, and storage of carbon dioxide produced from fossil fuels.''.

(c) CARBON REMOVAL TECHNOLOGY PRIZE COMPETITION.—

(1) DEFINITIONS.—In this subsection:

(A) DILUTE MEDIA.—The term ''dilute media'' means media in which the concentration

of carbon dioxide is less than 1 percent by volume.

(B) PRIZE COMPETITION.—The term ''prize competition'' means the competitive technology prize competition established under paragraph (2).

(C) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(2) ESTABLISHMENT.—Not later than 1 year after the date of enactment of this Act, the Secretary, in consultation with the Administrator of the Environmental Protection Agency, shall establish a competitive technology prize competition to award prizes for carbon dioxide capture from dilute media.

(3) REQUIREMENTS.—In carrying out this subsection, the Secretary, in accordance with section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719), shall develop requirements for—

(A) the prize competition process; and

(B) monitoring and verification procedures for projects selected to receive a prize under the prize competition.

(4) ELIGIBLE PROJECTS.—To be eligible for a prize awarded through the prize competition, a project shall—

(A) meet minimum performance standards set by the Secretary;

(B) meet minimum levels set by the Secretary for the capture of carbon dioxide from dilute media; and

(C) demonstrate in the application of the project for a prize—

(i) a design for a promising carbon capture technology that will—

(I) be operated on a demonstration scale; and

(II) have the potential to achieve significant reduction in the concentration of carbon dioxide in the atmosphere;

(ii) a successful bench-scale demonstration of a carbon capture technology; or

(iii) an operational carbon capture technology on a commercial scale.

(d) CARBON UTILIZATION.—

(1) IN GENERAL.—Subtitle F of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16291 et seq.) is amended by adding at the end the following:

**"SEC. 969A. CARBON UTILIZATION PROGRAM.**

"The Secretary shall establish a program of research, development, and demonstration for carbon utilization—

"(1) to assess and monitor—

"(A) potential changes in lifecycle carbon dioxide and other greenhouse gas emissions; and

"(B) other environmental safety indicators of new technologies, practices, processes, or methods used in enhanced hydrocarbon recovery as part of the activities authorized under section 963;

"(2) to identify and assess novel uses for carbon, including the conversion of carbon oxides for commercial and industrial products, such as—

"(A) chemicals;

"(B) plastics;

"(C) building materials;

"(D) fuels;

"(E) cement;

"(F) products of coal use in power systems or other applications; or

''(G) other products with demonstrated market value;

''(3) to identify and assess carbon capture technologies for industrial systems; and

''(4) to identify and assess alternative uses for coal that do not result in the release of carbon dioxide into the atmosphere, including as inputs for products derived from carbon engineering, carbon fiber, and coal conversion methods.''.

(2) TECHNICAL AMENDMENT.—The table of contents for the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 600) is amended by adding at the end of the items relating to subtitle F of title IX the following:

''Sec. 969A. Carbon utilization program.''.

(e) DEMONSTRATING CARBON CAPTURE AND SEQUESTRATION TECHNOLOGIES FOR ELECTRIC GENERATING FACILITIES.—

(1) IN GENERAL.—Subtitle F of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16291 et seq.) is amended by adding at the end the following new section:

**"SEC. 969B. DEMONSTRATING CARBON CAPTURE AND SEQUESTRATION TECHNOLOGIES FOR ELECTRIC GENERATING FACILITIES.**

''(a) IN GENERAL.—The Secretary shall establish a program for developing and demonstrating carbon capture and sequestration technologies for reducing the carbon dioxide emissions from new and existing facilities that burn coal or natural gas to generate electricity. The primary objective of this demonstration program shall be to deploy large scale pilot projects and demonstration projects that will accelerate the development, deployment, and commercialization of advanced new technologies for the capture and sequestration of carbon dioxide emissions from coal fired and natural gas-fired electric generating facilities.

''(b) DEPLOYMENT OF PILOT AND DEMONSTRATION PROJECTS.—The Secretary shall provide Federal financial assistance to eligible project developers to support the deployment of the following:

''(1) PILOT PROJECTS.—Large scale pilot projects that test the effectiveness and performance of carbon capture and sequestration technologies under representative operating conditions at coal- and natural gas-fired electric power systems with a generating capacity of up to 200 megawatts.

''(2) DEMONSTRATION PROJECTS.—Demonstration projects that deploy carbon capture and seques-

tration technologies that have completed pilot scale testing or the equivalent, as determined by the Secretary, for demonstrating such technologies on coal and natural gas fired electric generating facilities that are greater than 200 megawatts.

''(c) PROJECT CRITERIA.—To be eligible to receive Federal financial assistance under this section, each large-scale pilot project and demonstration project shall meet specific criteria that the Secretary may establish by rule or guidance for—

''(1) evaluating the performance, reliability, efficiency, and cost competitiveness of the technology for reducing carbon dioxide emissions and limiting other environmental impacts from the coal fired or natural gas fired electric generating facilities; and

''(2) gaining the operating data needed to understand the technical and performance risks of the technology under a wide range of representative operating conditions before the application of the technology at full commercial scale.

''(d) COST-SHARING.—Each project shall be funded—

''(1) through a cost-share arrangement that the Secretary may establish between the Department of Energy and the developer of the project, as author-

ized under section 988(b) for large-scale pilot projects and section 988(c) for demonstration projects; or

''(2) under subtitle A of title I of the Clean Energy Innovation and Deployment Act of 2020.

''(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as are necessary for each of the fiscal years 2021 through 2050.''.

(2) CLERICAL AMENDMENT.—The table of contents for the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 600) is amended by adding at the end of the items relating to subtitle F of title IX the following:

''Sec. 969B. Demonstrating carbon capture and sequestration technologies for electric generating facilities.''.

**SEC. 129. DEPLOYMENT OF ELECTRIC GRID MODERNIZATION THROUGH GRANTS.**

(a) DEPLOYMENT OF GRID MODERNIZATION PROJECTS THROUGH GRANTS.—The Secretary of Energy shall establish a program to provide financial assistance to eligible partnerships to carry out projects related to the modernization of the electric grid, including—

(1) projects for the deployment of technologies to improve monitoring of, advanced controls for, and

prediction of performance of, the electricity distribution system; and

(2) projects related to transmission system interconnections, and other transmission system issues.

(b) ELIGIBLE PROJECTS.—Projects for which an eligible partnership may receive financial assistance under subsection (a) shall—

(1) be designed to—

(A) improve the siting, construction, resiliency, performance, or efficiency of the electric grid, while ensuring the continued provision of safe, secure, reliable, and affordable power; or

(B) deploy a new product or technology that could be used by or for the benefit of customers of an electric utility; and

(2) demonstrate—

(A) secure integration and management of energy resources, including through distributed energy generation, combined heat and power, microgrids, energy storage, electric vehicles, smart buildings, energy efficiency, or demand response; or

(B) secure integration and interoperability of communications and information technologies related to the electric grid.

(c) CYBERSECURITY PLAN.—Each project carried out with financial assistance provided under subsection (a) shall include the development of a cybersecurity plan written in accordance with guidelines developed by the Secretary of Energy.

(d) PRIVACY EFFECTS ANALYSIS.—Each project carried out with financial assistance provided under subsection (a) shall include a privacy effects analysis that evaluates the project in accordance with the Voluntary Code of Conduct of the Department of Energy, commonly known as the ''DataGuard Energy Data Privacy Program'', or the most recent revisions to the privacy program of the Department.

(e) DEFINITIONS.—In this section:

(1) ELIGIBLE PARTNERSHIP.—The term ''eligible partnership'' means a partnership consisting of two or more entities, which—

(A) may include—

(i) any institution of higher education;

(ii) a National Laboratory;

(iii) a State or a local government or other public body created by or pursuant to State law;

(iv) an Indian Tribe;

(v) a Federal power marketing administration; or

(vi) a private entity that develops and provides grid modernization technology; and

(B) shall include at least one of any of—

(i) an electric utility;

(ii) a Regional Transmission Organization; or

(iii) an Independent System Operator.

(2) ELECTRIC UTILITY.—The term ''electric utility'' has the meaning given that term in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), except that such term does not include an entity described in subparagraph (B) of such section.

(3) FEDERAL POWER MARKETING ADMINISTRATION.—The term ''Federal power marketing administration'' means the Bonneville Power Administration, the Southeastern Power Administration, the

Southwestern Power Administration, or the Western Area Power Administration.

(4) INDEPENDENT SYSTEM OPERATOR; REGIONAL TRANSMISSION ORGANIZATION.—The terms ''Independent System Operator'' and ''Regional Transmission Organization'' have the meanings given those terms in section 3 of the Federal Power Act (16 U.S.C. 796).

(5) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given that term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $200,000,000 for each of fiscal years 2021 through 2025, to remain available until expended.

**SEC. 130. PRIZE COMPETITION FOR ELECTRICITY-RELATED TECHNOLOGIES FOR REMOTE COMMUNITIES.**

(a) DEFINITIONS.—In this section:

(1) PRIZE.—The term ''prize'' means a prize awarded under the prize competition.

(2) PRIZE COMPETITION.—The term ''prize competition'' means the competition established under subsection (b).

(3) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(b) ESTABLISHMENT.—Not later than 1 year after the date of enactment of this section, the Secretary, in consultation with the Secretary of Defense, shall establish a competition to award prizes for technologies that efficiently generate or utilize electricity for use by homes, businesses, communities, or military installations that are in remote locations or are not connected to a regional or national electric grid.

(c) REQUIREMENTS.—In carrying out this subsection, the Secretary, in accordance with section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719), shall develop requirements for—

(1) the prize competition process; and

(2) monitoring and verification procedures for projects selected to receive a prize.

(d) ELIGIBLE TECHNOLOGIES.—The technologies eligible to awarded a prize shall include—

(1) technologies that generate electricity and can be used without connection to the electric grid;

(2) technologies that store energy; and

(3) appliances that are highly-efficient in their use of electricity, including—

(A) lights;

(B) mobile telephone chargers;

(C) computers;

(D) fans;

(E) refrigerators; and

(F) stoves and ovens.

(e) CRITERIA.—The Secretary shall only award a prize to a technology determined by the Secretary to—

(1) function properly;

(2) generate no net emissions, or a minimal amount of net emissions, of greenhouse gases throughout its life cycle;

(3) be affordable, reliable, durable, safe, and protective of human health and the environment;

(4) be compatible with other technologies relevant to its functioning, including those which have been or are being awarded prizes under this section; and

(5) be available for deployment at commercial-scale in every State, district, commonwealth, territory, and possession of the United States.

(f) MARKETING.—Entities that have been awarded a prize may publish this fact in marketing the technology that has been awarded the prize.

(g) ANNUAL COMPETITION.—The Secretary shall award 1 or more prizes within 2 years of the date of enactment of this section and every year thereafter.

**SEC. 131. REPORT TO CONGRESS.**

(a) DEFINITION.—In this section, the term ''critical technologies'' means the technologies identified in sections 111 through 128 of subtitles B and C of this title, including technologies related to—

(1) electric vehicles;

(2) energy efficient buildings;

(3) solar and wind energy;

(4) energy storage;

(5) nuclear power;

(6) carbon removal, utilization, and storage;

(7) electric grid modernization; and

(8) any other technologies whose deployment the Secretary may advance through the implementation of this title and the amendments made by this title.

(b) REPORT.—Not later than 2 years after the date of enactment of this Act, and every 5 years thereafter, the Secretary of Energy, in consultation with, as appropriate, the heads of other relevant Federal agencies, State agencies, and relevant stakeholders, shall prepare, submit to Congress, and make publicly available a report that—

(1) identifies the major risks and benefits associated with the deployment of critical technologies;

(2) recommends measures for managing the risks identified in paragraph (1);

(3) analyzes barriers to deployment of critical technologies, including—

(A) the state of existing research, development, demonstration, and deployment;

(B) a detailed identification of the foreseeable technical milestones of the research, development, demonstration, and deployment described in paragraph (A);

(C) the projected likelihood of viability at commercial scale;

(D) access to capital;

(E) adverse environmental impacts;

(F) materials challenges relating to extreme environments, including—

(i) temperature;

(ii) pressure;

(iii) corrosion;

(iv) seasonality; and

(v) weather events;

(G) geographic barriers; and

(H) economic and other challenges particular to different regions of the United States;

(4) estimates the amount and form of any financial assistance, compensation, or incentives needed for wide-scale deployment of critical technologies;

(5) recommends additional nonregulatory strategies that could increase the deployment of critical technologies;

(6) identifies appropriate Federal agencies with capabilities to support State and local efforts towards deployment of the critical technologies;

(7) identifies all Federal financial assistance programs relevant to the deployment of the critical technologies and analyzes the extent to which such programs overlap or are duplicative; and

(8) evaluates the current architecture of regional electric grids (including international transmission connections of such grids) that together comprise the Nation's electric grid, with respect to—

(A) potential growth in renewable energy generation, including energy generation from offshore wind;

(B) potential growth in electricity demand;

(C) retirement of existing electricity generation assets; and

(D) the range of benefits that interregional transmission provides.

## Subtitle D—Davis-Bacon Compliance

**SEC. 141. DAVIS-BACON COMPLIANCE.**

(a) IN GENERAL.—All laborers and mechanics employed on projects funded directly, or assisted in whole or in part, by this Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of part A of subtitle II of title 40, United States Code (commonly referred to as the ''Davis-Bacon Act'').

(b) AUTHORITY.—With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

# TITLE II—ZERO-EMISSION ELECTRICITY STANDARD

**SEC. 200. PURPOSE.**

The purpose of this title is to accelerate the deployment of zero-emission electricity technology sufficient to allow the United States to achieve an affordable, reliable, net-zero-emission electricity sector by no later than 2050.

# Subtitle A—Zero-Emission Electricity Standard

**SEC. 201. DEFINITIONS.**

In this subtitle:

(1) AFFILIATE.—The term ''affiliate'' has the meaning given such term in section 1262 of the Energy Policy Act of 2005 (42 U.S.C. 16451).

(2) ASSOCIATE COMPANY.—The term ''associate company'' has the meaning given such term in section 1262 of the Energy Policy Act of 2005 (42 U.S.C. 16451).

(3) BEHIND-THE-METER GENERATION SYSTEM.—The term ''behind-the-meter generation system'' means a system of generation of electric energy that operates on the electric consumer side of the applicable utility meter.

(4) BENEFICIAL ELECTRIFICATION-RELATED REDUCTION.—The term ''beneficial electrification-related reduction'' means the net reduction of the aggregate greenhouse gas emissions of a retail electricity supplier and an electric consumer as the result of the replacement of a power source of the electric consumer that is not electric energy with electric energy provided by the retail electricity supplier, in-

cluding for the purpose of transportation, space heating, water heating, or industrial processes.

(5) CARBON DIOXIDE EQUIVALENT.—The term ''carbon dioxide equivalent'' means the number of metric tons of carbon dioxide emissions with the same global warming potential over a 20-year period as 1 metric ton of another greenhouse gas, including the effects of climate-carbon feedbacks for both carbon dioxide and the other greenhouse gas, as determined in accordance with the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. For methane, the global warming potential shall include the effect of carbon dioxide from methane oxidation in the atmosphere.

(6) CARBON INTENSITY.—The term ''carbon intensity'' means the carbon dioxide equivalent emissions associated with the generation of 1 megawatt-hour of electric energy, as determined by the Secretary under section 204.

(7) ELECTRIC CONSUMER.—The term ''electric consumer'' has the meaning given such term in section 3 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602).

(8) FEDERAL POWER MARKETING ADMINISTRATION.—The term ''Federal Power Marketing Admin-

istration'' means the Bonneville Power Administration, the Southeastern Power Administration, the Southwestern Power Administration, or the Western Area Power Administration.

(9) GENERATING UNIT.—The term ''generating unit'' means a unit or system of units that—

(A) generates electric energy that is consumed in the United States;

(B) generates not fewer than 20 megawatt-hours of electric energy per calendar year; and

(C)(i) delivers electric energy to the electric grid; or

(ii) in the case of a behind-the-meter generation system—

(I) delivers electric energy to the electric grid; or

(II) generates electric energy that is consumed onsite for a useful purpose other than for generating electric energy.

(10) GENERATOR.—The term ''generator'' means the owner or operator of a generating unit.

(11) GREENHOUSE GAS.—The term ''greenhouse gas'' includes each of the following:

(A) Carbon dioxide.

(B) Methane.

(C) Nitrous oxide.

(D) Sulfur hexafluoride.

(E) Any hydrofluorocarbon.

(F) Any perfluorocarbon.

(G) Nitrogen trifluoride.

(H) Any fully fluorinated linear, branched, or cyclic—

(i) alkane;

(ii) ether;

(iii) tertiary amine; or

(iv) aminoether.

(I) Any perfluoropolyether.

(J) Any hydrofluoropolyether.

(K) Any other fluorocarbon, except for a fluorocarbon with a vapor pressure of less than 1 mm of Hg absolute at 25 degrees Celsius.

(12) QUALIFIED COMBINED HEAT AND POWER SYSTEM.—The term ''qualified combined heat and power system'' means a system that—

(A) uses the same energy source for the simultaneous or sequential generation of electric energy and thermal energy;

(B) produces at least—

(i) 20 percent of the useful energy of the system in the form of electric energy; and

(ii) 20 percent of the useful energy of the system in the form of useful thermal energy;

(C) to the extent that the system uses biomass, uses only qualified renewable biomass; and

(D) operates with an energy efficiency percentage, as determined in accordance with section 48(c)(3)(C)(i) of the Internal Revenue Code of 1986, of greater than 60 percent on a year-round basis.

(13) QUALIFIED ELECTRICITY GENERATION.—

(A) IN GENERAL.—The term ''qualified electricity generation'' means the number of megawatt-hours of electric energy that a generator generates using a generating unit and—

(i) sells directly or indirectly for use by electric consumers for purposes other than resale; or

(ii) that is consumed onsite for a useful purpose other than for generating electric energy.

(B) AFFILIATE SALES.—For purposes of calculating the quantity of electric energy sold by a retail electricity supplier under this paragraph, the quantity of electric energy sold—

(i) by an affiliate of the retail electricity supplier, or an associate company of the retail electricity supplier, to an electric consumer (other than to a lessee or tenant of the affiliate or associate company) shall be treated as sold by the retail electricity supplier; and

(ii) by such retail electricity supplier to an affiliate, lessee, or tenant of the retail electricity supplier shall not be considered to be a sale to an electric consumer.

(14) QUALIFIED LOW-CARBON FUEL.—

(A) IN GENERAL.—The term ''qualified low-carbon fuel'' means a fuel that—

(i) is produced through any process that significantly limits or avoids greenhouse gas emissions; and

(ii) does not release greenhouse gas emissions during combustion.

(B) INCLUSION.—The term ''qualified low-carbon fuel'' includes, subject to subparagraph (A)—

(i) ammonia; and

(ii) hydrogen.

(15) QUALIFIED RENEWABLE BIOMASS.—

(A) IN GENERAL.—The term ''qualified renewable biomass'' means—

(i) any crop byproduct, or crop residue, harvested from actively managed, or fallow, agricultural land that was cleared before January 1, 2020, if the harvesting of the byproduct or residue does not lead to a net decline in soil organic matter for the applicable land;

(ii) any cellulose, hemicellulose, or lignin that is derived from a plant that is planted for the purpose of being used to produce energy on land that was, as of January 1, 2020—

(I) cropland, including fallow land or other land with a cropping history;

(II) a brownfield site (as defined in section 101(39) of the Comprehen-

sive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601(39))); or

(III) an abandoned mine site;

(iii) nonhazardous algal or other micro-crop matter; and

(iv) waste—

(I) that is burned in a qualified combined heat and power system; and

(II) that is—

(aa) methane captured from a landfill, an animal production facility, or a sewage treatment operation;

(bb) nonhazardous landscape or right-of-way trimmings;

(cc) vegetative matter removed from an area located not more than 200 yards from a building, residence, or campground for the purpose of protecting structures from wildfire;

(dd) any byproduct of a wood mill or paper mill operation, including lignin in spent

pulping liquors, that is demonstrated to otherwise be burned for energy onsite;

(ee) plant material removed for the purposes of invasive or noxious plant species control; or

(ff) downed wood from extreme weather events.

(B) LIMIT OF INCLUSION OF INVASIVE SPECIES.—Except as provided in subparagraph (A)(iv)(II)(ee), the term ''qualified renewable biomass'' does not include any matter that the Secretary of Agriculture, in consultation with other Federal or State departments and agencies the Secretary determines appropriate, determines is derived from—

(i) a plant that is invasive or noxious; or

(ii) a species or varieties of plants that are potentially invasive.

(16) QUALIFIED WASTE-TO-ENERGY.—The term ''qualified waste-to-energy'' means electric energy generated—

(A) from the combustion of—

(i) post-recycled municipal solid waste, provided such combustion does not result in emissions of—

(I) an air pollutant for which air quality criteria has been issued under section 108 of the Clean Air Act; or

(II) a hazardous air pollutant listed pursuant to section 112(b) of the Clean Air Act;

(ii) gas produced from the gasification or pyrolization of post-recycled municipal solid waste;

(iii) biogas;

(iv) landfill methane;

(v) animal waste or animal byproducts;

(vi) food waste;

(vii) if diverted from or separated from other waste out of a municipal waste stream—

(I) paper products that are not commonly recyclable;

(II) vegetation;

(III) tree trimmings;

(IV) solid-wood yard waste, pallets, or crates; or

(V) manufacturing and construction debris; or

(viii) any byproduct of a wood or paper mill operation, including lignin in spent pulping liquors; and

(B) at a facility that the Secretary has certified, within the past 3 years, is in compliance with all applicable Federal and State environmental permits.

(17) RETAIL ELECTRICITY SUPPLIER.—The term ''retail electricity supplier'', as determined for each calendar year, means an entity in the United States that sold not fewer than 20 megawatt-hours of electric energy to electric consumers for purposes other than resale during the preceding calendar year.

(18) SALE.—The term ''sale'', when used with respect to electric energy, has the meaning given such term in section 3(13) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602(13)).

(19) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(20) STATE.—Except as otherwise provided in this title, the term ''State'' means a State of the United States and any district, commonwealth, territory, or possession of the United States.

(21) ZERO-EMISSION ELECTRICITY.—The term ''zero-emission electricity'' means the fraction of the electric energy generated by a given generating unit whose generation is not associated with the release of greenhouse gases to the atmosphere. The number of megawatt-hours of zero-emission electricity of a given generating unit is equal to the product obtained by multiplying—

(A) the qualified electricity generation of the generating unit; by

(B) the extent to which the operation of the generating unit results in fewer greenhouse gas emissions than an efficient coal-burning power plant, which is the number that equals—

(i) 1.0; less

(ii) the quotient obtained by dividing—

(I) the carbon intensity of the generating unit; by

(II) the carbon intensity of an efficient coal-burning power plant

(which is 0.82 metric tons of carbon dioxide per megawatt-hour).

(22) ZERO-EMISSION ELECTRICITY CREDIT.—The term ''zero-emission electricity credit'' means a credit issued pursuant to section 204.

**SEC. 202. ZERO-EMISSION ELECTRICITY REQUIREMENT.**

(a) ZERO-EMISSION ELECTRICITY REQUIREMENT.—

(1) CREDIT SUBMISSION REQUIREMENT.—Except as otherwise provided in this section, effective beginning with calendar year 2022, for each calendar year, not later than June 1 of the following calendar year, each retail electricity supplier shall submit to the Secretary a quantity of zero-emission electricity credits that is equal to—

(A) for each of calendar years 2022 and 2023, the quantity of zero-emission electricity credits determined under paragraph (3) for the retail electricity supplier for such calendar year; and

(B) for calendar year 2024 and each calendar year thereafter, the average of the quantity of zero-emission electricity credits determined under paragraph (3) for the retail electricity supplier for such calendar year and the two prior calendar years.

(2) VOLUNTARY ASSIGNMENT OF COMPLIANCE OBLIGATION BY PUBLIC POWER UTILITIES AND ELECTRIC COOPERATIVES.—Any retail electricity supplier that is an electric cooperative, a State, or any political subdivision of a State, may elect to enter into an agreement with another political subdivision of a State, an electric cooperative that has an obligation to serve such retail electricity supplier, or a generator to assign any reporting or compliance obligation under this title to such other political subdivision of a State, electric cooperative, or generator. An assignment made under this paragraph shall be established through a binding agreement executed among the relevant parties.

(3) QUANTITY OF ZERO-EMISSION ELECTRICITY CREDITS.—

(A) IN GENERAL.—For each calendar year, the Secretary shall determine a quantity of zero-emission electricity credits for a retail electricity supplier that is equal to the product obtained by multiplying—

(i) the total quantity of electric energy, in megawatt-hours, consumed by electric consumers of the retail electricity supplier during the calendar year, that is

provided by the retail electricity supplier or by a behind-the-meter generation system, as reported under subsection (b); by

(ii) the minimum percentage of zero-emission electricity for the calendar year.

(B) DEDUCTION FOR BENEFICIAL ELECTRIFICATION.—

(i) REDUCTION.—In calculating the total quantity of electric energy consumed by electric consumers of a retail electricity supplier under subparagraph (A)(i), the Secretary shall deduct a quantity, in megawatt-hours, determined in accordance with clause (ii) to account for beneficial electrification-related reductions.

(ii) DETERMINATION.—The Secretary shall make a determination of the quantity of electric energy, in megawatt-hours, associated with beneficial electrification-related reductions for a retail electricity supplier for a calendar year. Such determination shall be made on the basis of—

(I) the carbon intensity of the electric energy sold by the retail electricity supplier that results in such

beneficial electrification-related reductions; and

(II) the greenhouse gas emissions of power sources that are not electric energy that were replaced with electric energy provided by the retail electricity supplier which results in such beneficial electrification-related reductions.

(C) SYSTEM SUPPORT RESOURCE.—For any calendar year in which a generating unit that is owned by a retail electricity supplier has been designated a System Support Resource by the Federal Energy Regulatory Commission and is thereby required, by an Independent System Operator or Regional Transmission Organization, or under a State-regulated resource planning process, to remain in operation because retirement of the generating unit would harm the reliability of the electric energy transmission system, in calculating the total quantity of electric energy consumed by electric consumers of the retail electricity supplier under subparagraph (A)(i), the Secretary shall deduct the quantity of megawatt-hours of electricity

generated by such generating unit during such calendar year.

(4) AVERAGE CREDIT PRICES.—For each calendar year, the Secretary shall—

(A) analyze the market for zero-emission electricity credits in order to determine the average annual price of zero-emission electricity credits for the calendar year;

(B) determine whether the average annual price of a zero-emission electricity credit determined under subparagraph (A) is less than half of the alternative compliance payment under subsection (c) for the calendar year; and

(C) publish the determinations made under subparagraphs (A) and (B) by not later than January 31 of the year following the calendar year.

(5) DEFINITIONS.—In this subsection:

(A) ANNUAL PERCENTAGE INCREASE.—

(i) Except as provided in clause (ii), the term ''annual percentage increase'' means, with respect to a retail electricity supplier, the product obtained by multiplying—

(I) the difference between 100 percent and the baseline zero-emission electricity percentage; by—

(II) 1/27.

(ii) Notwithstanding clause (i), beginning with calendar year 2025, if the Secretary determines under paragraph (4) that the average annual price of a zero-emission electricity credit for each of the 3 calendar years prior to a calendar year (in this clause referred to as ''the applicable calendar year'') is less than one half of the respective alternative compliance payment for each of the 3 such prior calendar years, the annual percentage increase for the 1 calendar year that begins 4 years after the end of the applicable calendar year shall be twice the percentage described in clause (i).

(B) BASELINE ZERO-EMISSION ELECTRICITY PERCENTAGE.—

(i) IN GENERAL.—The term ''baseline zero-emission electricity percentage'' means, with respect to a retail electricity supplier, the average percentage of the

electric energy consumed by all electric consumers of the retail electricity supplier that is zero-emission electricity during calendar years 2017, 2018, and 2019.

(ii) ELECTION.—For any retail electricity supplier served by an Independent System Operator or a Regional Transmission Organization, or participating in a joint unit commitment and centralized economic dispatch system regulated by the Federal Energy Regulatory Commission, the retail electricity supplier may elect to set its baseline zero-emission electricity percentage under clause (i) on the basis of the zero-emission electricity and electric energy consumed by either—

(I) all electric consumers of the retail electricity supplier; or

(II) all electric consumers served by the Independent System Operator, Regional Transmission Organization, or the applicable joint unit commitment and centralized economic dispatch system that serves the retail electricity supplier.

(iii) NOTIFICATION OF ELECTION.—A retail electricity supplier shall inform the Secretary of its election under clause (ii) not later than 180 days after the date of enactment of this Act.

(C) MINIMUM PERCENTAGE OF ZERO-EMISSION ELECTRICITY.—The term ''minimum percentage of zero-emission electricity'' means, with respect to a retail electricity supplier—

(i) for each of calendar years 2022 and 2023, the baseline zero-emission electricity percentage;

(ii) for each of calendar years 2024 through 2050, the amount, not to exceed 100 percent, obtained by adding—

(I) the minimum percentage of zero-emission electricity for the previous calendar year; and

(II) the annual percentage increase; and

(iii) for each calendar year after 2050, 100 percent.

(b) REPORTING ON BEHIND-THE-METER GENERATION SYSTEMS.—Effective beginning in calendar year 2022, each retail electricity supplier serving one or more

behind-the-meter generation systems may, not later than January 1 of each calendar year, submit to the Secretary—

(1) verification of the carbon intensity of behind-the-meter generation systems connected to the retail electricity supplier; and

(2) the quantity of electric energy generated by each such behind-the-meter generation system that is consumed for a useful purpose by electric consumers served by the retail electricity supplier.

(c) ALTERNATIVE COMPLIANCE PAYMENTS.—A retail electricity supplier may satisfy the requirements of subsection (a) with respect to a calendar year, in whole or in part, by submitting to the Secretary, in lieu of each zero-emission electricity credit that would otherwise be due, an alternative compliance payment equal to the amount determined for such calendar year in accordance with the following table, adjusted for inflation:

| Calendar year | Alternative compliance payment |
|---|---|
| 2022 | $20.00 |
| 2023 | $21.50 |
| 2024 | $23.00 |
| 2025 | $24.50 |
| 2026 | $26.00 |
| 2027 | $27.50 |
| 2028 | $29.00 |
| 2029 | $30.50 |
| 2030 | $32.00 |
| 2031 | $33.50 |
| 2032 | $35.00 |
| 2033 | $36.50 |

| Calendar year | Alternative compliance payment |
|---|---|
| 2034 | $38.00 |
| 2035 | $39.50 |
| 2036 | $41.00 |
| 2037 | $42.50 |
| 2038 | $44.00 |
| 2039 | $45.50 |
| 2040 | $47.00 |
| 2041 | $48.50 |
| 2042 | $50.00 |
| 2043 | $51.50 |
| 2044 | $53.00 |
| 2045 | $54.50 |
| 2046 | $56.00 |
| 2047 | $57.50 |
| 2048 | $59.00 |
| 2049 | $60.50 |
| 2050 and each calendar year thereafter | $62.00. |

(d) DETERMINATION OF INADEQUATE AVAILABILITY OF ZERO-EMISSION ELECTRICITY TECHNOLOGY.—

(1) PETITION FOR DETERMINATION.—A retail electricity supplier (referred to in this subsection as the ''petitioner'') may submit to the Secretary a petition for the Secretary to make a determination of inadequate availability of technology relating to zero-emission electricity with respect to a calendar year.

(2) CONDITIONS.—The Secretary shall make an affirmative determination under paragraph (1) (referred to in this title as a ''determination of inadequate availability of technology'') for a calendar year only if—

(A) a petition is submitted to the Secretary by January 31 of the following calendar year;

(B) the average annual price of zero-emission electricity credits is equal to or greater than the alternative compliance payment under subsection (c) for such calendar year;

(C) the Secretary determines the number of megawatt-hours of zero-emission electricity that could have been generated or purchased by the petitioner using technology that was available during such calendar year—

(i) at or below the cost per megawatt-hour of the technology used to generate the electricity sold by the petitioner in the previous calendar year; and

(ii) while enabling the petitioner to operate its system at an adequate level of reliability; and

(D) the number of megawatt-hours determined under subparagraph (C) is less than the number of zero-emission electricity credits the petitioner would be required to submit under subsection (a).

(3) CREDIT SUBMISSION.—Notwithstanding subsection (a)(1), if the Secretary makes a determination of inadequate availability of technology for a petitioner for a calendar year, as described under

this subsection, the petitioner shall not be required to submit for such calendar year more than the number of zero-emission electricity credits equal to the number of megawatt-hours determined under paragraph (2)(C).

(4) CARBON MITIGATION AWARDS.—For the calendar year identified under paragraph (3), if the Secretary makes one or more determinations of inadequate availability of technology under this subsection, the Secretary shall award under section 205(b) an amount of money equal to the sum of—

(A) the total amount paid by retail electricity suppliers as alternative compliance payments; and

(B) the total amount of the alternative compliance payments that would have been made by the petitioner or petitioners but for the determination of inadequate availability of technology made under paragraph (2).

(e) EXEMPTIONS.—(1) A qualified zero-emission electricity taxpayer that receives a zero-emission electricity acceleration investment credit for a calendar year under section 45U of the Internal Revenue Code of 1986, as added by section 301 of this Act, shall not be subject to the requirements to submit zero-emission electricity credits

under this section for such calendar year and every calendar year thereafter.

(2) An eligible electricity provider that is awarded a grant under section 302 of this Act for a calendar year shall not be subject to the requirements to submit zero-emission electricity credits under this section for such calendar year and every calendar year thereafter, as long as the condition described under section 302(a)(1) continues to be met.

**SEC. 203. ZERO-EMISSION ELECTRICITY CREDIT TRADING PROGRAM.**

(a) ESTABLISHMENT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall establish a zero-emission electricity credit trading program under which—

(1) the Secretary shall record, track, auction, and transfer zero-emission electricity credits; and

(2) a generator to whom such zero-emission electricity credits are issued may sell or otherwise transfer those credits, as provided or allowed by applicable contracts, through—

(A) any auction established under the zero-emission electricity credit trading program;

(B) direct sales; or

(C) other transactional arrangements that sell electric energy or generating capacity either separately or combined with the transfer of zero-emission electricity credits, including transactions that pair zero-emission electricity credits with the demand of the retail electricity supplier.

(b) ADMINISTRATION.—In carrying out the program under this section, the Secretary shall ensure that a zero-emission electricity credit may be—

(1) submitted only once under section 202(a); and

(2) only purchased by, transferred to, or otherwise secured by a retail electricity supplier.

(c) DELEGATION OF MARKET FUNCTION.—

(1) IN GENERAL.—In carrying out the program under this section, the Secretary may delegate, to one or more appropriate entities—

(A) the administration of a transparent national market for the sale or trade of zero-emission electricity credits; and

(B) the tracking of dispatch of zero-emission electricity generation.

(2) ADMINISTRATION.—In making a delegation under paragraph (1), the Secretary shall ensure that

the tracking and reporting of information concerning the dispatch of zero-emission electricity generation is transparent, verifiable, and independent of any interests subject to an obligation under this title.

(d) BANKING OF ZERO-EMISSION ELECTRICITY CREDITS.—A zero-emission electricity credit may be used for compliance with the requirements of section 202 for—

(1) the calendar year for which the zero-emission electricity credit is issued (in this subsection referred to as ''the applicable calendar year''); and

(2)(A) any of the 5 calendar years following the applicable calendar year, if the Secretary determines under section 202(a)(4) that the average annual price of a zero-emission electricity credit is equal to or less than one half of the alternative compliance payment for each of the 3 calendar years prior to the applicable calendar year; or

(B) if the Secretary has not made the determination described under subparagraph (A)—

(i) any of the 5 calendar years following the applicable calendar year, if the applicable calendar year is any of calendar years 2022 through 2029;

(ii) any of the 4 calendar years following the applicable calendar year, if the applicable

calendar year is any of calendar years 2030 through 2034;

(iii) any of the 3 calendar years following the applicable calendar year, if the applicable calendar year is any of calendar years 2035 through 2039; and

(iv) any of the 2 calendar years following the applicable calendar year, if the applicable calendar year is 2040 or any calendar year thereafter.

**SEC. 204. DETERMINATION AND ISSUANCE OF QUANTITY OF ZERO-EMISSION ELECTRICITY CREDITS.**

(a) ISSUANCE OF ZERO-EMISSION ELECTRICITY CREDITS.—The Secretary shall issue to each generator a quantity of zero-emission electricity credits determined in accordance with this section, not later than March 1 of the calendar year after the calendar year for which the zero-emission electricity credits are issued.

(b) GENERAL RULES ON CREDIT ISSUANCE.—Except as otherwise provided in this section, the Secretary shall issue to a generator generating zero-emission electricity during a calendar year a quantity of zero-emission electricity credits for such generation that is equal to the product obtained by multiplying—

(1) the qualified electricity generation of the generator during such calendar year; by

(2) the number that equals—

(A) 1.0; less

(B) the quotient obtained by dividing—

(i) the average carbon intensity of the generating units of such generator for such calendar year, as determined in accordance with subsection (c); by

(ii) 0.82.

(c) GENERAL RULES ON DETERMINING CARBON INTENSITY.—Notwithstanding any other provision of this section, the Secretary shall determine the carbon intensity of each generating unit of a generator. Such determination shall be made—

(1) using data and methods from the Air Emission Measurement Center of the Environmental Protection Agency for emission testing and monitoring, including—

(A) continuous emission monitoring systems; and

(B) predictive emission monitoring systems; and

(2) with respect to a determination of the carbon intensity of any generating unit using qualified

renewable biomass or qualified low-carbon fuel, or generating qualified waste-to-energy, in consultation with—

(A) the Secretary of Agriculture; and

(B) the Secretary of the Interior.

(d) CARBON INTENSITY FOR CERTAIN CATEGORIES OF GENERATING UNITS.—

(1) GENERATING UNITS UTILIZING TECHNOLOGIES WITHOUT DIRECT EMISSIONS.—The Secretary shall assign a carbon intensity of zero for any generating unit of a generator that does not produce direct emissions of any greenhouse gas in generating electric energy, including any generating unit that generates electric energy only through the use of solar, wind, ocean, current, wave, tidal, geothermal, nuclear energy, or hydropower technology (except as described under paragraph (3)).

(2) GENERATING UNITS UTILIZING TECHNOLOGIES UTILIZING FOSSIL FUELS.—

(A) ACCOUNTING FOR UPSTREAM GREENHOUSE GAS EMISSIONS.—In determining the carbon intensity of each generating unit using fossil fuel, the Secretary shall utilize the best available science, including with respect to the measurement of low-frequency high-emission

events, including data from the detection of natural gas flaring from the satellite observations of the National Oceanic and Atmospheric Administration, to account for—

(i) the carbon dioxide emissions of the generating unit; and

(ii)(I) the average amounts of carbon dioxide and methane emissions, in terms of carbon dioxide equivalent, that occur during extraction, flaring, processing, and transportation in the United States of the fossil fuel consumed by the generator; or

(II) with respect to a generator that the Secretary determines under subparagraph (B) has demonstrated that the fossil fuel consumed by such generator is associated with the release of smaller amounts of carbon dioxide and methane emissions than the amounts described in subclause (I), such smaller amounts.

(B) DETERMINATION.—

(i) IN GENERAL.—The Secretary may determine that a generator has demonstrated that the fossil fuel consumed by such generator is associated with the re-

lease of smaller amounts of carbon dioxide and methane emissions than the amounts described in subparagraph (A)(ii)(I) if the generator—

(I) accounts for low-frequency, high-emission events; and

(II) uses direct measurements of the applicable facilities, which may include measurements made in the course of participation in a voluntary program or public disclosure of the quantified methane emission intensity of the applicable facilities.

(ii) PUBLIC AVAILABILITY.—The information provided to the Secretary by a generator to make a determination under this subparagraph shall be available to the public upon such determination.

(C) STANDARDS.—The Secretary shall promulgate the standards for measurement necessary to implement subparagraph (A) not less than 2 years after the date of enactment of this title and shall update such standards every 5 years thereafter, based on the best available science.

(3) HYDROPOWER UTILIZING A NEW RESERVOIR.—In determining the carbon intensity of each generating unit using hydropower associated with a reservoir constructed after the date of enactment of this Act, the Secretary shall account for the greenhouse gas emissions that can be attributed to the hydropower facility, including the applicable new reservoir.

(e) QUANTITY OF CREDITS ISSUED FOR CERTAIN CATEGORIES OF GENERATING UNITS.—

(1) QUALIFIED COMBINED HEAT AND POWER SYSTEMS.—

(A) IN GENERAL.—The Secretary shall issue to a generator generating zero-emission electricity during a calendar year using a generating unit that is a qualified combined heat and power system a quantity of zero-emission electricity credits for such generation that is equal to—

(i) the product obtained by multiplying—

(I) the number of megawatt-hours of electric energy generated by the qualified combined heat and power system during such calendar year; by

(II) the number that equals—

(aa) 1.0; less

(bb) the quotient obtained by dividing—

(AA) the carbon intensity of the qualified combined heat and power system; by

(BB) 0.82; less

(ii) the product obtained by multiplying—

(I) the number of megawatt-hours of electric energy generated by the qualified combined heat and power system that are consumed onsite during such calendar year; by

(II) the average of the minimum percentage of zero-emission electricity (as defined in section 202(a)(5)) for the calendar year for retail electricity suppliers in the region of the generator, as determined by the Secretary.

(B) ADDITIONAL CREDITS.—In addition to zero-emission electricity credits issued under subparagraph (A), the Secretary shall issue to

a generator described in subparagraph (A) zero-emission electricity credits for greenhouse gas emissions avoided as a result of the use of the applicable qualified combined heat and power system, rather than a separate thermal source, to meet the thermal needs of the generator or one or more additional entities.

(C) APPLICABILITY.—This paragraph shall not apply with respect to a qualified combined heat and power system using qualified renewable biomass.

(2) QUALIFIED RENEWABLE BIOMASS.—The Secretary shall issue to a generator generating zero-emission electricity during a calendar year using qualified renewable biomass a quantity of zero-emission electricity credits for such generation that is equal to the product obtained by multiplying—

(A) the qualified electricity generation of the generator using qualified renewable biomass during such calendar year; by

(B) the average carbon intensity of the generating units of the generator that use qualified renewable biomass.

(3) QUALIFIED WASTE-TO-ENERGY.—The Secretary shall issue to a generator generating zero-

emission electricity during a calendar year that is qualified waste-to-energy a quantity of zero-emission electricity credits for such generation that is equal to the product obtained by multiplying—

(A) the qualified waste-to-energy of the generator that is qualified electricity generation during such calendar year; by

(B) the average carbon intensity of the generating units of the generator used to generate qualified waste-to-energy.

(4) QUALIFIED LOW-CARBON FUELS.—

(A) IN GENERAL.—Except as provided in subparagraph (C), the Secretary shall issue to a generator generating zero-emission electricity during a calendar year using qualified low-carbon fuels a quantity of zero-emission electricity credits for such generation that is equal to the product obtained by multiplying—

(i) the qualified electricity generation of the generator using qualified low-carbon-fuels during such calendar year; by

(ii) the average carbon intensity of the generating units of the generator that use qualified low-carbon fuels.

(B) ADJUSTMENT FOR PRODUCTION.—In determining the carbon intensity of each generating unit using a qualified low-carbon fuel, the Secretary shall account for the greenhouse gas emissions associated with the production of such qualified low-carbon fuel.

(C) NO DOUBLE-COUNTING.—The Secretary shall not issue zero-emission electricity credits for electric energy generated using a qualified low-carbon fuel that is generated from electric energy for which a generator is issued a zero-emission electricity credit under this title.

(5) CARBON CAPTURE, STORAGE, AND UTILIZATION.—

(A) DEFINITIONS.—In this paragraph, the term ''qualified carbon oxide'' has the meaning given the term in section 45Q of the Internal Revenue Code of 1986.

(B) QUANTITY OF CREDITS.—Except as otherwise provided in this section, the Secretary shall, with respect to a given calendar year, issue to a generator a quantity of zero-emission electricity credits for the capture and storage or utilization of qualified carbon oxide from a

waste stream of the generator that is equal to the product obtained by multiplying—

(i) the qualified electricity generation of the generator during such calendar year; by

(ii) the difference between—

(I) 1.0; and

(II) the quotient obtained by dividing—

(aa) the carbon intensity of the generator; by

(bb) 0.82.

(6) DIRECT AIR CAPTURE OF CARBON DIOXIDE.—

(A) QUANTITY OF CREDITS.—The Secretary shall issue to an entity that captures carbon dioxide from the atmosphere and stores or utilizes such carbon dioxide 1 zero-emission electricity credit for every 0.82 metric tons of carbon dioxide equivalent that is captured and stored or utilized.

(B) SPECIAL RULES.—

(i) REGULATIONS.—Subject to clause (ii), not later than 1 year after the date of

enactment of this Act, the Secretary shall promulgate regulations establishing—

(I) the conditions under which carbon dioxide may be safely and permanently stored for purposes of issuing zero-emission electricity credits under this paragraph;

(II) the methods and processes by which carbon dioxide may be utilized in a manner that ensures the removal of the carbon dioxide safely and permanently from the atmosphere, including utilization in the production of substances, such as plastics and chemicals; and

(III) requirements to account, in issuing zero-emission electricity credits under this section, for the risk that some fraction of the carbon dioxide intended for permanent storage or utilization may nevertheless be emitted into the atmosphere.

(ii) EXISTING REQUIREMENTS.—In promulgating regulations pursuant to this subparagraph, the Secretary shall incor-

porate any existing requirements for the permanent geologic storage of carbon dioxide, including any requirements promulgated under section 45Q of the Internal Revenue Code of 1986.

(f) MAXIMUM QUANTITY OF CREDITS.—Except as provided under subsection (e)(1), the total quantity of zero-emission electricity credits issued under this section to a generator for a calendar year shall not exceed the number of megawatt-hours of the qualified electricity generation of the generator for the calendar year.

(g) NO NEGATIVE CREDITS.—Notwithstanding any other provision of this title, the Secretary shall not issue a negative quantity of zero-emission electricity credits to any generator.

(h) FACILITIES OUTSIDE THE UNITED STATES.—With respect to electricity generated by a facility or generating unit that is located outside of the United States, a zero-emission electricity credit may be issued only with respect to electricity that is sold for resale in the United States.

(i) CONTRACTS.—A zero-emission electricity credit issued for electricity that is—

(1) sold for resale under a contract in effect on the date of enactment of this title shall be issued to

the purchasing retail electricity supplier in proportion to the zero-emission electricity purchased by such retail electricity supplier under the contract, unless otherwise provided by the contract; and

(2) sold for resale under a contract in which a generating unit is not specified, shall be issued to the purchasing retail electricity supplier in proportion to the ratio of zero-emission electricity generation from the generator making such sale for resale.

(j) FEDERAL POWER MARKETING ADMINISTRATION.—A zero-emission electricity credit issued for electricity that is generated by a Federal Power Marketing Administration shall be conveyed to the retail electricity supplier that is purchasing the electricity.

(k) RECIPIENTS OF ACCELERATION INVESTMENT CREDITS.—A qualified zero-emission electricity taxpayer that receives a zero-emission electricity acceleration investment credit for a calendar year under section 45U of the Internal Revenue Code of 1986, as added by section 301 of this Act, shall not be issued any zero-emission electricity credits under this section after such calendar year.

(l) RECIPIENTS OF ACCELERATION GRANTS.—An eligible electricity provider that receives a grant during a calendar year under section 302 of this Act shall not be

issued any zero-emission electricity credits under this section after such calendar year.

**SEC. 205. CARBON MITIGATION FUND.**

(a) CARBON MITIGATION FUND.—

(1) CREATION OF FUND.—There is hereby established a trust fund, to be known as the ''Carbon Mitigation Fund'', consisting of such amounts as may be appropriated to such fund as provided in this section.

(2) ADMINISTRATION.—The Carbon Mitigation Fund shall be administered by the Secretary.

(3) TRANSFERS TO TRUST FUND.—There are hereby appropriated to the Carbon Mitigation Fund each year amounts equal to the sum of the amounts that are—

(A) attributable to alternative compliance payments made pursuant to section 202(c);

(B) the alternative compliance payments that would have been made by any petitioners under section 202(d) but for a determination of inadequate availability of technology made by the Secretary under section 202(d); and

(C) collected as a civil penalty under section 209.

(4) EXPENDITURES.—Amounts in the Carbon Mitigation Fund shall be available without further appropriation or fiscal year limitation to carry out the program under subsection (b).

(b) PROGRAM.—

(1) IN GENERAL.—The Secretary shall carry out a program to award funds to entities to carry out activities in States that avoid emissions of greenhouse gases or remove carbon dioxide from the atmosphere.

(2) ACTIVITIES.—Activities for which the Secretary may award funds under the program carried out pursuant to this subsection include—

(A) improvement to the energy efficiency of existing facilities and devices;

(B) the replacement of natural gas space heaters, natural gas water heaters, and natural gas stoves, with electric appliances;

(C) the replacement of fossil fuel-powered vehicles owned by State and local agencies with electric vehicles or other low-carbon fuel vehicles;

(D) the replacement of fossil fuel-powered ground airport and seaport vehicles with electric vehicles or other low-carbon fuel vehicles;

(E) installation of fast charging stations for electric vehicles along highways and other public roads in urban areas and rural areas;

(F) beneficial electrification-related reductions not otherwise identified in this paragraph;

(G) direct air capture and permanent sequestration or utilization of carbon dioxide; and

(H) any activity that is endorsed by a generator or a retail electricity supplier that avoids emissions of greenhouse gases or removes carbon dioxide from the atmosphere.

(3) EXCLUSIONS.—The Secretary may not award funds to an entity under the program carried out pursuant to this subsection for any activity for which the entity has been issued a zero-emission electricity credit or received a deduction of megawatt-hours in the calculation under 202(a)(3) to account for beneficial electrification-related reductions.

(4) CRITERIA.—The Secretary may only award funds under the program carried out pursuant to this subsection for an activity for which the Secretary determines that—

(A) the amount of carbon dioxide emissions avoided or removed from the atmosphere

by the activity will be adequately confirmed through monitoring, reporting and verification;

(B) the risk that some amount of the carbon dioxide that is removed from the atmosphere by the activity may reenter the atmosphere at a later date is adequately reflected through a discounting of the amount described in paragraph (5)(C)(ii);

(C) the risk that some amount of the greenhouse gases, the emission of which is avoided by the activity, may enter the atmosphere at a later date is adequately reflected through a discounting of the amount described in paragraph (5)(C)(i);

(D) the risk that the activity may directly or indirectly increase the release of greenhouse gases from another location has been adequately addressed;

(E) the activity is not required, or being fully supported financially by, a Federal, State, or local law, program, or activity; and

(F) if the activity involves land use, the activity aligns with the Sustainable Development Goals of the United Nations, including being consistent with the conservation of biological di-

versity and natural ecosystems (including forests and grasslands), and shall maintain ecosystem services and enhance other social and environmental benefits.

(5) PROPOSALS.—In order to qualify for an award of funds under this subsection, an entity shall submit to the Secretary a proposal that—

(A) describes the activity to be carried out with the award of funds in a manner specified by the Secretary;

(B) identifies the amount of money for which the entity is applying;

(C) identifies the amount, to be measured in one-year increments, of—

(i) greenhouse gas emissions to be avoided by the activity, measured in terms of carbon dioxide equivalent; or

(ii) carbon dioxide to be removed from the atmosphere by the activity, measured in metric tons;

(D) identifies the bid amount, expressed as dollars per metric ton, which shall be the quotient obtained by dividing the amount identified under subparagraph (B) by the amount identified under subparagraph (C);

(E) provides any information required by the Secretary in order to make a determination described in paragraph (4); and

(F) provides any other certifications the Secretary determines appropriate.

(6) DEADLINES.—

(A) SOLICITATION.—Not later than February 1, 2024, and each February 1 thereafter, the Secretary shall solicit proposals for activities described in paragraph (1) for which the Secretary may award funds under the program carried out pursuant to this subsection.

(B) IDENTIFICATION.—Not later than June 1, 2024, and each June 1 thereafter, the Secretary shall identify proposals that have been submitted by March 1 of such calendar year for activities described in paragraph (1) that qualify for an award of funds under the program carried out pursuant to this subsection.

(C) AWARD OF FUNDS.—Not later than August 1, 2024, and each August 1 thereafter, the Secretary shall award to entities funds available in the Carbon Mitigation Fund established under section 9512 of the Internal Rev-

enue Code of 1986 for activities described in proposals identified under subparagraph (B).

(7) AWARDS TO MOST COST-EFFECTIVE ACTIVITIES.—The Secretary shall award funds to entities for activities described in proposals identified under paragraph (6)(B)—

(A) beginning by awarding funds to the entity submitting such a proposal with the lowest bid amount identified pursuant to paragraph (5)(D); and

(B) then awarding funds to entities sequentially by entity submitting such a proposal with the next lowest bid amount so identified until all funds are awarded.

(c) CONSULTATION.—The Secretary shall consult with the Secretary of the Interior, the Secretary of Agriculture, and the Administrator of the Environment Protection Agency in promulgating regulations to measure, monitor, and verify any natural sequestration activities awarded under this section.

**SEC. 206. STATE PROGRAMS.**

(a) SAVINGS PROVISION.—

(1) IN GENERAL.—Except as provided in paragraph (2) and subject to subsection (b), nothing in this title affects the authority of a State or a polit-

ical subdivision of a State to adopt or enforce any law or regulation relating to—

(A) clean energy or renewable energy; or

(B) the regulation of a retail electricity supplier.

(2) FEDERAL LAW.—Except as otherwise provided in this section, no law or regulation of a State or a political subdivision of a State may relieve a retail electricity supplier from compliance with an applicable requirement of this title.

(b) COORDINATION.—The Secretary, in consultation with States that have clean energy programs or renewable energy programs in effect, shall facilitate, to the maximum extent practicable, coordination between the implementation of this Act and the relevant State clean energy program or renewable energy program.

(c) MORE STRINGENT STATE CLEAN ENERGY PROGRAMS.—

(1) DETERMINATION.—

(A) IN GENERAL.—The Secretary, in consultation with States that have State clean energy programs or renewable energy programs in effect, shall determine whether each such State is implementing a more stringent State clean energy program.

(B) DEADLINES.—The Secretary shall make a determination under subparagraph (A)—

(i) not later than January 1, 2021, with respect to a State clean energy or renewable energy program in effect on the date of enactment of this Act, and every 5 years thereafter; and

(ii) not later than 6 months after the date of the enactment by a State, after the date of enactment of this Act, of a new or modified existing clean energy or renewable energy program, and every 5 years thereafter.

(C) PERIOD.—A determination under this paragraph shall be effective until the earlier of—

(i) the date that is 5 years after the date of the determination; or

(ii) the date on which the Secretary makes a subsequent determination under this paragraph with respect to the applicable State program.

(2) COMPLIANCE.—If the Secretary determines, under paragraph (1), that a State has a more strin-

gent State clean energy program, a retail electricity supplier that is subject to and in compliance with such more stringent State clean energy program shall be deemed to be in compliance with the requirements of this title for the period during which the determination is effective.

(3) PROHIBITION AGAINST DOUBLE-COUNTING.—The Secretary, in consultation with States, shall develop a protocol to ensure that a zero-emission electricity credit may not be issued under this title with respect to an amount of electric energy for which one or more State clean energy credits are issued under, and used for compliance with, a more stringent State clean energy program.

(d) QUALIFIED ELECTRICITY GENERATION ELIGIBLE IN BOTH STATE AND FEDERAL PROGRAMS.—

(1) ISSUANCE OF CREDIT.—In a State that does not have a more stringent State clean energy program, 1 megawatt-hour of zero-emission electricity is eligible to be issued both a State clean energy credit and a zero-emission electricity credit pursuant to this title.

(2) RETIREMENT OF STATE CREDITS.—Retirement of a State clean energy credit for a compliance with a State law in a State that does not have a

more stringent State clean energy program shall not prevent a retail electricity supplier from submitting a zero-emission electricity credit issued for the same megawatt-hour of zero-emission electricity for compliance with this title.

(3) SUBMISSION OF FEDERAL CREDITS.—Submission of a zero-emission electricity credit for compliance with this title shall not prevent a retail electricity supplier from retiring a State clean energy credit issued for the same megawatt-hour of qualified electricity generation for compliance with a State law.

(e) DEFINITIONS.—In this section:

(1) STATE CLEAN ENERGY CREDIT.—The term ''State clean energy credit'' means a certificate corresponding to the electricity generated from renewable or other zero-emission electricity sources that is issued under a law enacted by a State.

(2) MORE STRINGENT STATE CLEAN ENERGY PROGRAM.—The term ''more stringent State clean energy program'' means a law of a State that—

(A) is determined by the Secretary to require each retail electricity supplier in the State, during the period described under subsection (c)(1)(C), to—

(i) obtain State clean energy credits representing an aggregate number of megawatt-hours of zero-emission electricity that is larger than the number of zero-emission electricity credits the retail electricity supplier would otherwise be required to submit under section 202; or

(ii) generate a percentage of zero-emission electricity that is greater than the percentage that would be required of the retail electricity supplier under section 202; and

(B) includes compliance mechanisms, including the imposition of penalties, that are at least as effective in enforcing compliance as the system of enforcement under this title.

**SEC. 207. REPORT TO CONGRESS.**

Not later than January 1, 2040, the Secretary shall submit a report to Congress with an evaluation and a forecast of the remaining barriers to achieving generation of electric energy with no emissions of carbon dioxide by calendar year 2050.

**SEC. 208. INFORMATION COLLECTION.**

The Secretary may require any retail electricity supplier, generator, or other entity that the Secretary deter-

mines appropriate, to submit to the Secretary any information the Secretary determines to be appropriate to carry out this title.

**SEC. 209. CIVIL PENALTIES.**

(a) IN GENERAL.—Subject to subsection (b)—

(1) a retail electricity supplier that fails to meet the requirements of section 202 shall be subject to a civil penalty in an amount equal to the product obtained by multiplying—

(A) the aggregate quantity of zero-emission electricity credits that the retail electricity supplier failed to submit for the calendar year to comply with section 202; by

(B) 300 percent of the amount of alternative compliance payment for the calendar year, as determined under section 202(c); and

(2) an entity required to submit information pursuant to section 208 that violates such section by failing to submit the information, or submitting false or misleading information, shall be subject to a civil penalty of $25,000 for each day during which such violation continues.

(b) WAIVERS AND MITIGATION.—

(1) FORCE MAJEURE.—The Secretary may mitigate or waive a civil penalty under subsection (a)

if the applicable retail electricity supplier or other entity was unable to comply with an applicable requirement for reasons outside of the reasonable control of the retail electricity supplier or other entity.

(2) REDUCTION FOR STATE PENALTIES.—The Secretary shall reduce the amount of a penalty determined under subsection (a) by the amount paid by the applicable retail electricity supplier to a State for failure to comply with the requirement of a State renewable energy program, if the State requirement is more stringent than the applicable requirement of this title.

(c) PROCEDURE FOR ASSESSING PENALTY.—The Secretary shall assess a civil penalty under this section in accordance with section 333(d) of the Energy Policy and Conservation Act (42 U.S.C. 6303(d)).

**SEC. 210. REGULATIONS.**

(a) IN GENERAL.—Except as otherwise provided in this title, not later than 2 years after the date of enactment of this title, the Secretary shall promulgate regulations to implement this title.

(b) CONSULTATION.—The Secretary shall consult with the Administrator of the Environmental Protection Agency in promulgating the regulations to implement this title.

# Subtitle B—Methane Regulation

**SEC. 211. METHANE REGULATION.**

(a) NATIONAL GOAL.—The goal of this section is to reduce steadily the quantity of methane emissions from the oil and natural gas sector such that the quantity of methane emissions in calendar year 2030 from the oil and natural gas sector is at least 90 percent below the quantity of methane emissions in calendar year 2012 from such sector.

(b) MAINTAINING FINAL NSPS RULE.—The Administrator may not repeal, replace, or amend the final rule entitled ''Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources'' as published by the Environmental Protection Agency in the Federal Register on June 3, 2016 (81 Fed. Reg. 35,824 et seq.), until regulations are promulgated pursuant to subsection (c).

(c) REGULATIONS TO MEET THE NATIONAL GOAL.—

(1) MEETING THE NATIONAL GOAL.—

(A) DEADLINE.—Not later than December 31, 2022, the Administrator shall promulgate final regulations under section 111 of the Clean Air Act (42 U.S.C. 7411) to limit methane emissions from the oil and natural gas sector to

achieve the national goal specified in subsection (a).

(B) CONTENTS.—The regulations required by subparagraph (A) shall provide for the establishment, implementation, and enforcement of standards of performance for limiting emissions of methane from new sources under section 111(b) of the Clean Air Act (42 U.S.C. 7411(b)), and guidelines for States to establish, implement, and enforce standards of performance for existing sources under section 111(d) of the Clean Air Act (42 U.S.C. 7411(d)). Such standards of performance shall—

(i) require the application of the best system of emission reduction to include application of the best system of venting and leakage reduction for new and existing natural gas transmission and distribution pipelines; and

(ii) apply to new sources, and existing sources, including—

(I) new sources, and existing sources, with equipment that handles liquefied natural gas;

(II) new and existing offshore petroleum and natural gas production facilities; and

(III) other petroleum and natural gas facilities, as determined by the Administrator.

(2) COVERED SOURCES.—The regulations promulgated pursuant to this subsection shall apply to new sources and existing sources of methane within every segment of the oil and natural gas sector.

(d) PUBLIC HEALTH AND WELFARE.—For purposes of section 111 of the Clean Air Act (42 U.S.C. 7411), methane emissions from the oil and gas sector are deemed to reasonably be anticipated to endanger public health or welfare.

(e) DEFINITIONS.—In this section:

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

(2) EXISTING SOURCE; NEW SOURCE; STANDARD OF PERFORMANCE.—The terms ''existing source'', ''new source'', and ''standard of performance'', have the meaning given such terms in section 111(a) of the Clean Air Act (42 U.S.C. 7411(a)).

# TITLE III—INCENTIVES FOR THE ACCELERATED DEPLOYMENT OF 100-PERCENT ZERO-EMISSION ELECTRICITY SYSTEM

**SEC. 300. PURPOSE.**

The purpose of this title is to provide support for any given power company to accelerate the deployment of a 100-percent zero-emission electricity generation system as early as possible before 2050.

**SEC. 301. ZERO-EMISSION ELECTRICITY ACCELERATION INVESTMENT TAX CREDIT.**

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by adding at the end the following new section:

**"SEC. 45U. ZERO-EMISSION ELECTRICITY ACCELERATION INVESTMENT CREDIT.**

''(a) IN GENERAL.—For purposes of section 38, in the case of a taxpayer who is a qualified zero-emission electricity taxpayer, the zero-emission electricity acceleration investment credit shall be the applicable percentage of the cost of a qualified zero-emission electricity generating unit.

''(b) DEFINITIONS.—In this section;

''(1) APPLICABLE PERCENTAGE.—The term 'applicable percentage' means—

''(A) 50 percent in the case of a qualified zero-emission electricity generating unit that begins to generate electricity before December 31, 2025,

''(B) 40 percent in the case of a qualified zero-emission electricity generating unit that begins to generate electricity before December 31, 2030, and

''(C) 30 percent in the case of a qualified zero-emission electricity generating unit that begins to generate electricity before December 31, 2037.

''(2) GENERATING UNIT.—The term 'generating unit' has the meaning given such term in section 201 of the Clean Energy Innovation and Deployment Act of 2020.

''(3) QUALIFIED ZERO-EMISSION ELECTRICITY GENERATING UNIT.—The term 'qualified zero-emission electricity generating unit' means a generating unit—

''(A) that is placed into service after the date of enactment of this section, and

''(B) the operation of which does not result in the release of carbon dioxide into the atmosphere.

''(4) QUALIFIED ZERO-EMISSION ELECTRICITY TAXPAYER.—The term 'qualified zero-emission electricity taxpayer' means, for a taxable year, a taxpayer who—

''(A) does not own a generating unit that emits carbon dioxide at any point during such taxable year, and

''(B) for such taxable year, owns non-emitting electricity generating units with a generating capacity that is equal to or greater than the annual average generating capacity of generating units owned by such taxpayer during the 5-year period ending on the date of the enactment of this section.

''(c) TRANSFERABILITY.—

''(1) IN GENERAL.—If the qualified zero-emission electricity taxpayer elects to transfer all (or any portion specified in the election) of the credit determined under this section for any taxable year with respect to any qualified facility to an eligible project partner for a specified period, then, the eligible project partner specified in such election (and not

the taxpayer) shall be treated for purposes of this title with respect to such credit (or such portion thereof) as the person producing and selling the electricity to which such credit (or portion thereof) relates.

''(2) DEDUCTION FOR PAYMENTS IN CONNECTION WITH TRANSFER.—There shall be allowed as a deduction under part VI of subchapter B an amount equal to the amount paid by a taxpayer as consideration for a transfer described in paragraph (1).

''(3) ELIGIBLE PROJECT PARTNER.—

''(A) For purposes of this subsection, the term 'eligible project partner' means, with respect to any qualified facility, any person who—

''(i) has an ownership interest in such qualified facility,

''(ii) provided equipment for or services in the construction of such qualified facility,

''(iii) provides electric transmission or distribution services for such qualified facility,

''(iv) purchases electricity from such qualified facility pursuant to a contract, or

''(v) provides financing for such qualified facility.

''(B) For purposes of subparagraph (A)(v), any amount paid as consideration for a transfer described in paragraph (1) shall not be treated as financing of a qualified facility.

''(4) TAXABLE YEAR IN WHICH CREDIT TAKEN INTO ACCOUNT.—In the case of any credit (or portion thereof) with respect to which an election is made under paragraph (1), such credit shall be taken into account in the first taxable year of the eligible project partner ending with, or after, the electing taxpayer's taxable year with respect to which the credit was determined.

''(5) LIMITATIONS ON ELECTION.—

''(A) TIME FOR ELECTION.—An election under this subsection to transfer any portion of the credit allowed under this section shall be made not later than the due date for the return of tax for the electing taxpayer's taxable year with respect to which the credit was determined.

''(B) NO FURTHER TRANSFERS.—No election may be made under this subsection by a taxpayer with respect to any portion of the

credit allowed under this section which has been previously transferred to such taxpayer under this paragraph.

''(C) TREATMENT OF TRANSFER UNDER PRIVATE USE RULES.—For purposes of section 141(b)(1), any benefit derived by an eligible project partner in connection with an election under this subsection shall not be taken into account as a private business use.

''(D) ADDITIONAL ELECTION REQUIREMENTS.—The Secretary may prescribe such regulations as may be appropriate to carry out the purposes of this subsection, including—

''(i) rules for determining which persons are eligible project partners with respect to any energy property, and

''(ii) requiring information to be included in an election under paragraph (1) or imposing additional reporting requirements.

''(E) QUALIFIED FACILITY.—For purposes of this section, the term 'qualified facility' has the meaning given in section 45(d).

''(d) CREDIT RECAPTURE.—If a taxpayer who has been allowed a credit under this section for any taxable

year ceases, in any subsequent taxable year, to be a qualified zero-emission electricity taxpayer, such taxpayer's tax under this chapter for such subsequent taxable year shall be increased by the amount of any credit or credits previously allocated to such taxpayer under this section (and not previously recaptured under this subsection).

''(e) TERMINATION.—This section shall apply to taxable years ending before January 1, 2050.''.

(b) CREDIT MADE PART OF GENERAL BUSINESS CREDIT.—Subsection (b) of section 38 of the Internal Revenue Code of 1986 is amended by striking ''plus'' at the end of paragraph (32), by striking the period at the end of paragraph (33) and inserting '', plus'', and by adding at the end the following new paragraph:

''(34) the zero-emission electricity acceleration investment credit determined under section 45U.''.

(c) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1 of such Code is amended by adding at the end the following new item:

''Sec. 45U. Zero-emission electricity acceleration investment credit.''.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after the date of the enactment of this Act.

**SEC. 302. ZERO-EMISSION ELECTRICITY ACCELERATION GRANTS.**

(a) IN GENERAL.—Upon application, the Secretary of Energy shall, subject to the requirements of this section and the availability of appropriations for such purpose, provide a grant in an amount specified under subsection (b) to an eligible electricity provider that—

(1) permanently retires every existing carbon-emitting generating unit owned by the eligible electricity provider as of the date that the applicable percentage for the grant begins to apply under subsection (b)(2); and

(2) places into service one or more qualified zero-emission electricity generating units that replace the generation capacity of the carbon-emitting generating units described in paragraph (1) in sufficient amounts to satisfy the condition specified in subsection (c).

(b) GRANT AMOUNT.—

(1) IN GENERAL.—The amount of the grant under subsection (a) with respect to any qualified zero-emission electricity generating unit shall be the applicable percentage of the cost of such qualified zero-emission electricity generating unit.

(2) APPLICABLE PERCENTAGE.—For purposes of paragraph (1), the term ''applicable percentage'' means—

(A) 50 percent in the case of a qualified zero-emission electricity generating unit that begins to generate electricity before December 31, 2025;

(B) 40 percent in the case of a qualified zero-emission electricity generating unit that begins to generate electricity before December 31, 2030; and

(C) 30 percent in the case of a qualified zero-emission electricity generating unit that begins to generate electricity before December 31, 2037.

(c) CONDITIONS FOR THE GRANT.—No grant shall be made under this section unless the Secretary of Energy determines that the eligible electricity provider, as of the date that the applicable percentage for the grant begins to apply under subsection (b)(2), owns generating units that have an aggregate generation capacity that is not less than the annualized amount of generation capacity that is owned by such eligible electricity provider during the 5-year period ending on the date of the enactment of this section.

(d) TIME FOR PAYMENT OF GRANT.—The Secretary of Energy shall make payment of any grant under subsection (a) during the 60-day period beginning on the later of—

(1) the date of the application for such grant; or

(2) the date the qualified zero-emission electricity generating units described in subsection (a)(2) for which the grant is being made are placed into service.

(e) APPLICATION OF CERTAIN RULES.—In making grants under this section, the Secretary of Energy shall apply rules similar to the rules of section 50 of the Internal Revenue Code of 1986 with the exception of section 50(b)(3) and section 50(b)(4) for an entity described in section 50(b)(4)(A)(i). In applying such rules, if an eligible electricity provider acquires a carbon-emitting generating unit after a grant is made to the eligible electricity provider, the Secretary shall provide for the recapture of the appropriate percentage of the grant amount in such manner as the Secretary determines appropriate.

(f) DEFINITIONS.—For purposes of this section:

(1) CARBON-EMITTING GENERATING UNIT.—The term ''carbon-emitting generating unit'' means

a generating unit the operation of which results in the release of carbon dioxide to the atmosphere.

(2) ELIGIBLE ELECTRICITY PROVIDER.—The term ''eligible electricity provider'' means an entity in the United States that—

(A) owns one or more generating units; and

(B) sells the electricity generated by such generating units.

(3) GENERATING UNIT.—The term ''generating unit'' has the meaning given such term in section 201 of the Clean Energy Innovation and Deployment Act of 2020.

(4) QUALIFIED ZERO-EMISSION ELECTRICITY GENERATING UNIT.—The term ''qualified zero-emission electricity generating unit'' means a generating unit—

(A) that is placed into service after the date of enactment of this section; and

(B) the operation of which does not result in the release of carbon dioxide into the atmosphere.

# TITLE IV—LOW-INCOME RATEPAYER PROTECTION

**SEC. 400. PURPOSE.**

The purpose of this title is to provide low-income residents technical and financial assistance to help reduce energy bills, including by making homes more energy efficient.

**SEC. 401. WEATHERIZATION ASSISTANCE PROGRAM.**

(a) REAUTHORIZATION OF WEATHERIZATION ASSISTANCE PROGRAM.—Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended by striking paragraphs (1) through (5) and inserting the following:

"(1) $350,000,000 for fiscal year 2021;

"(2) $500,000,000 for fiscal year 2022;

"(3) $650,000,000 for fiscal year 2023;

"(4) $800,000,000 for fiscal year 2024; and

"(5) $1,000,000,000 for each of fiscal years 2025 through 2030.".

(b) MODERNIZING THE DEFINITION OF WEATHERIZATION MATERIALS.—Section 412(9)(J) of the Energy Conservation and Production Act (42 U.S.C. 6862(9)(J)) is amended—

(1) by inserting ", including renewable energy technologies and other advanced technologies," after "devices or technologies"; and

(2) by striking ", after consulting with the Secretary of Housing and Urban Development, the Secretary of Agriculture, and the Director of the Community Services Administration".

(c) CONSIDERATION OF HEALTH BENEFITS.—Section 413(b) of the Energy Conservation and Production Act (42 U.S.C. 6863(b)) is amended—

(1) in paragraph (1), by striking "Health, Education, and Welfare" and inserting "Health and Human Services";

(2) in paragraph (2)(A), by striking "Health, Education, and Welfare" and inserting "Health and Human Services";

(3) in paragraph (3)—

(A) by striking "and with the Director of the Community Services Administration";

(B) by inserting "and by" after "in carrying out this part,"; and

(C) by striking ", and the Director of the Community Services Administration in carrying out weatherization programs under section

222(a)(12) of the Economic Opportunity Act of 1964'';

(4) by redesignating paragraphs (4) through (6) as paragraphs (5) through (7), respectively; and

(5) by inserting after paragraph (3), the following:

''(4) The Secretary may amend the regulations prescribed under paragraph (1) to provide that the standards described in paragraph (2)(A) take into consideration improvements in the health and safety of occupants of dwelling units, and other nonenergy benefits, from weatherization.''.

(d) CONTRACTOR OPTIMIZATION.—

(1) IN GENERAL.—The Energy Conservation and Production Act is amended by inserting after section 414B (42 U.S.C. 6864b) the following:

**''SEC. 414C. CONTRACTOR OPTIMIZATION.**

''(a) IN GENERAL.—The Secretary may request that entities receiving funding from the Federal Government or from a State through a weatherization assistance program under section 413 or section 414 perform periodic reviews of the use of private contractors in the provision of weatherization assistance, and encourage expanded use of contractors as appropriate.

''(b) USE OF TRAINING FUNDS.—Entities described in subsection (a) may use funding described in such subsection to train private, non-Federal entities that are contracted to provide weatherization assistance under a weatherization program, in accordance with rules determined by the Secretary.''.

(2) TABLE OF CONTENTS AMENDMENT.—The table of contents for the Energy Conservation and Production Act is amended by inserting after the item relating to section 414B the following:

''Sec. 414C. Contractor optimization.''.

(e) FINANCIAL ASSISTANCE FOR WAP ENHANCEMENT AND INNOVATION.—

(1) IN GENERAL.—The Energy Conservation and Production Act is amended by inserting after section 414C (as added by subsection (d) of this section) the following:

**''SEC. 414D. FINANCIAL ASSISTANCE FOR WAP ENHANCEMENT AND INNOVATION.**

''(a) PURPOSES.—The purposes of this section are—

''(1) to expand the number of dwelling units that are occupied by low-income persons that receive weatherization assistance by making such dwelling units weatherization-ready;

''(2) to promote the deployment of zero-emission electric energy in dwelling units that are occupied by low-income persons;

''(3) to ensure healthy indoor environments by enhancing or expanding health and safety measures and resources available to dwellings that are occupied by low-income persons;

''(4) to disseminate new methods and best practices among entities providing weatherization assistance; and

''(5) to encourage entities providing weatherization assistance to hire and retain employees who are individuals—

''(A) from the community in which the assistance is provided; and

''(B) from communities or groups that are underrepresented in the home energy performance workforce, including religious and ethnic minorities, women, veterans, individuals with disabilities, individuals who are socioeconomically disadvantaged, and energy transition workers (as defined in section 511 of the Clean Energy Innovation and Deployment Act of 2020).

''(b) FINANCIAL ASSISTANCE.—The Secretary shall, to the extent funds are made available, award financial

assistance, on an annual basis, through a competitive process to entities receiving funding from the Federal Government or from a State, tribal organization, or unit of general purpose local government through a weatherization program under section 413 or section 414, or to nonprofit entities, to be used by such an entity—

"(1) with respect to dwelling units that are occupied by low-income persons, to—

"(A) implement measures to make such dwelling units weatherization-ready by addressing structural, plumbing, roofing, and electrical issues, environmental hazards, or other measures that the Secretary determines to be appropriate;

"(B) install energy efficiency technologies, including home energy management systems, smart devices, technologies that have been awarded a prize under section 128 of the Clean Energy Innovation and Deployment Act of 2020, and other technologies the Secretary determines to be appropriate;

"(C) install renewable energy systems (as defined in section 415(c)(6)(A)); and

"(D) implement measures to ensure healthy indoor environments by improving in-

door air quality, accessibility, and other healthy homes measures as determined by the Secretary;

''(2) to improve the capability of the entity—

''(A) to significantly increase the number of energy retrofits performed by such entity;

''(B) to replicate best practices for work performed pursuant to this section on a larger scale;

''(C) to leverage additional funds to sustain the provision of weatherization assistance and other work performed pursuant to this section after financial assistance awarded under this section is expended; and

''(D) to hire and retain employees who are individuals described subsection (a)(5);

''(3) for innovative outreach and education regarding the benefits and availability of weatherization assistance and other assistance available pursuant to this section;

''(4) for quality control of work performed pursuant to this section;

''(5) for data collection, measurement, and verification with respect to such work;

''(6) for program monitoring, oversight, evaluation, and reporting regarding such work;

''(7) for labor, training, and technical assistance relating to such work;

''(8) for planning, management, and administration (up to a maximum of 15 percent of the assistance provided); and

''(9) for such other activities as the Secretary determines to be appropriate.

''(c) AWARD FACTORS.—In awarding financial assistance under this section, the Secretary shall consider—

''(1) the applicant's record of constructing, renovating, repairing, or making energy efficient single-family, multifamily, or manufactured homes that are occupied by low-income persons, either directly or through affiliates, chapters, or other partners (using the most recent year for which data are available);

''(2) the number of dwelling units occupied by low-income persons that the applicant has built, renovated, repaired, weatherized, or made more energy efficient in the 5 years preceding the date of the application;

''(3) the qualifications, experience, and past performance of the applicant, including experience

successfully managing and administering Federal funds;

''(4) the strength of an applicant's proposal to achieve one or more of the purposes under subsection (a);

''(5) the extent to which such applicant will utilize partnerships and regional coordination to achieve one or more of the purposes under subsection (a);

''(6) regional and climate zone diversity;

''(7) urban, suburban, and rural localities; and

''(8) such other factors as the Secretary determines to be appropriate.

''(d) APPLICATIONS.—

''(1) ADMINISTRATION.—To be eligible for an award of financial assistance under this section, an applicant shall submit to the Secretary an application in such manner and containing such information as the Secretary may require.

''(2) AWARDS.—Subject to the availability of appropriations, not later than 270 days after the date of enactment of this section, the Secretary shall make a first award of financial assistance under this section.

''(e) MAXIMUM AMOUNT AND TERM.—

''(1) IN GENERAL.—The total amount of financial assistance awarded to an entity under this section shall not exceed $2,000,000.

''(2) TECHNICAL AND TRAINING ASSISTANCE.—The total amount of financial assistance awarded to an entity under this section shall be reduced by the cost of any technical and training assistance provided by the Secretary that relates to such financial assistance.

''(3) TERM.—The term of an award of financial assistance under this section shall not exceed 3 years.

''(4) RELATIONSHIP TO FORMULA GRANTS.—An entity may use financial assistance awarded to such entity under this section in conjunction with other financial assistance provided to such entity under this part.

''(f) REQUIREMENTS.—Not later than 90 days after the date of enactment of this section, the Secretary shall issue requirements to implement this section, including, for entities receiving financial assistance under this section—

''(1) standards for allowable expenditures;

''(2) a minimum saving-to-investment ratio; and

''(3) standards for—

"(A) training programs;

"(B) energy audits;

"(C) the provision of technical assistance;

"(D) monitoring activities carried out using such financial assistance;

"(E) verification of energy and cost savings;

"(F) liability insurance requirements; and

"(G) recordkeeping and reporting requirements, which shall include reporting to the Office of Weatherization and Intergovernmental Programs of the Department of Energy applicable data on each dwelling unit retrofitted or otherwise assisted pursuant to this section.

"(g) COMPLIANCE WITH STATE AND LOCAL LAW.—Nothing in this section supersedes or otherwise affects any State or local law, to the extent that the State or local law contains a requirement that is more stringent than the applicable requirement of this section.

"(h) REVIEW AND EVALUATION.—The Secretary shall review and evaluate the performance of each entity that receives an award of financial assistance under this section (which may include an audit).

''(i) ANNUAL REPORT.—The Secretary shall submit to Congress an annual report that provides a description of—

''(1) actions taken under this section to achieve the purposes of this section; and

''(2) accomplishments as a result of such actions, including energy and cost savings achieved.

''(j) FUNDING.—

''(1) AMOUNTS.—

''(A) IN GENERAL.—For each of fiscal years 2021 through 2030, of the amount made available under section 422 for such fiscal year to carry out the weatherization program under this part (not including any of such amount made available for Department of Energy headquarters training or technical assistance), not more than—

''(i) 2 percent of such amount (if such amount is $225,000,000 or more but less than $260,000,000) may be used to carry out this section;

''(ii) 4 percent of such amount (if such amount is $260,000,000 or more but less than $300,000,000) may be used to carry out this section; and

"(iii) 6 percent of such amount (if such amount is $300,000,000 or more) may be used to carry out this section.

"(B) MINIMUM.—For each of fiscal years 2021 through 2030, if the amount made available under section 422 (not including any of such amount made available for Department of Energy headquarters training or technical assistance) for such fiscal year is less than $225,000,000, no funds shall be made available to carry out this section.

"(2) LIMITATION.—For any fiscal year, the Secretary may not use more than $25,000,000 of the amount made available under section 422 to carry out this section.".

(2) TABLE OF CONTENTS.—The table of contents for the Energy Conservation and Production Act is amended by inserting after the item relating to section 414C the following:

"Sec. 414D. Financial assistance for WAP enhancement and innovation.".

(f) HIRING.—

(1) IN GENERAL.—The Energy Conservation and Production Act is amended by inserting after section 414D (as added by subsection (e) of this section) the following:

**"SEC. 414E. HIRING.**

"The Secretary may, as the Secretary determines appropriate, encourage entities receiving funding from the Federal Government or from a State through a weatherization program under section 413 or section 414, to prioritize the hiring and retention of employees who are individuals described in section 414D(a)(5).".

(2) TABLE OF CONTENTS.—The table of contents for the Energy Conservation and Production Act is amended by inserting after the item relating to section 414D the following:

"Sec. 414E. Hiring.".

(g) INCREASE IN ADMINISTRATIVE FUNDS.—Section 415(a)(1) of the Energy Conservation and Production Act (42 U.S.C. 6865(a)(1)) is amended by striking "10 percent" and inserting "15 percent".

(h) AMENDING REWEATHERIZATION DATE.—Paragraph (2) of section 415(c) of the Energy Conservation and Production Act (42 U.S.C. 6865(c)) is amended to read as follows:

"(2) Dwelling units weatherized (including dwelling units partially weatherized) under this part, or under other Federal programs (in this paragraph referred to as 'previous weatherization'), may not receive further financial assistance for weatherization under this part until the date that is 15 years after the date such previous weather-

ization was completed. This paragraph does not preclude dwelling units that have received previous weatherization from receiving assistance and services (including the provision of information and education to assist with energy management and evaluation of the effectiveness of installed weatherization materials) other than weatherization under this part or under other Federal programs, or from receiving non-Federal assistance for weatherization.''.

(i) ANNUAL REPORT.—Section 421 of the Energy Conservation and Production Act (42 U.S.C. 6871) is amended by inserting ''the number of multifamily buildings in which individual dwelling units were weatherized during the previous year, the number of individual dwelling units in multifamily buildings weatherized during the previous year,'' after ''the average size of the dwellings being weatherized,''.

(j) REPORT ON WAIVERS.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy shall submit to Congress a report on the status of any request made after September 30, 2010, for a waiver of any requirement under section 200.313 of title 2, Code of Federal Regulations, as such requirement applies with respect to the weatherization assistance program under part A of title IV of the Energy Conservation and

Production Act (42 U.S.C. 6861 et seq.), including a description of any such waiver that has been granted and any such request for a waiver that has been considered but not granted.

**SEC. 402. LIHEAP AUTHORIZATION.**

Section 2602 of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621) is amended—

(1) in subsection (b), by striking ''through 2007'' and inserting ''through 2030''; and

(2) in subsection (d)—

(A) in paragraph (1), by striking ''through 2004'' and inserting ''through 2030''; and

(B) in paragraph (2), by striking ''through 2004'' and inserting ''through 2030''.

# TITLE V—ENERGY WORKFORCE TRANSITION AND TRAINING

**SEC. 500. PURPOSES.**

The purposes of this title are to provide for a transition to a modern energy system, including by ensuring that—

(1) the United States has a workforce prepared to address the needs of the modern energy system;

(2) workers in declining energy sectors and in disenfranchised communities acquire well-paying jobs in growing energy sectors; and

(3) communities, especially those that are disproportionately vulnerable to the impacts of climate change and other pollution, can be made resilient to the impacts of climate change.

# Subtitle A—State Energy Plans

**SEC. 501. STATE ENERGY PLANS.**

(a) IN GENERAL.—Section 362(d) of the Energy Policy and Conservation Act (42 U.S.C. 6322(d)) is amended—

(1) in paragraph (16), by striking ''; and'' and inserting a semicolon;

(2) by redesignating paragraph (17) as paragraph (18); and

(3) by inserting after paragraph (16) the following:

''(17) a State energy plan developed in accordance with section 367; and''.

(b) STATE ENERGY PLANS.—Part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.) is amended by adding at the end the following:

**''SEC. 367. STATE ENERGY PLANS.**

''(a) IN GENERAL.—The Secretary may provide financial assistance to a State to develop a State energy plan, for inclusion in a State energy conservation plan under section 362(d), to provide for—

''(1) the elimination of net greenhouse gas emissions;

''(2) improved air and water quality; and

''(3) conservation of natural resources.

''(b) CONTENTS.—A State developing a State energy plan under this section shall include in such plan, measures to—

''(1) ensure that the full social cost of carbon pollution is factored into decision-making associated with electricity generation and utility investments in energy efficiency and electric vehicle infrastructure;

''(2) promote investments in a distribution system that takes advantage of technology advancement and supports reduced pollution, consumer choice, and a resilient and reliable system;

''(3) address the need to site transmission lines and new electricity generating units efficiently;

''(4) evaluate the role of existing resources as part of utility planning to accelerate the transition to low-cost carbon emissions reductions;

''(5) engage with regional partners to explore the potential benefits of regional markets;

''(6) support utility leadership in its efforts to transition to sources of electricity that result in net zero greenhouse gas emissions;

''(7) support infrastructure upgrades and smart grid investments to improve system-wide efficiency;

''(8) support building codes for new and retrofitted buildings that promote the energy efficiency of buildings and the electric grid;

''(9) support improved appliance efficiency standards;

''(10) support investments in electric vehicle infrastructure in ways that will ensure a more efficient grid and greater adoption of electric vehicles, including in rural areas;

''(11) support workforce and economic transition planning for communities impacted by a changing energy landscape, as informed by the Energy Workforce Transition Plan developed under section 512 of the Clean Energy Innovation and Deployment Act of 2020, and the pilot program developed under section 523 of such Act;

''(12) consider the human health and environmental impacts of energy development and climate change on low-income and underserved populations, including rural communities, communities of color, children, the elderly, and sick; and

''(13) develop strategies to support local clean energy goals facilitating utility-community cooperation and private sector partnerships.

''(c) COORDINATION.—In developing a State energy plan under this section, a State shall coordinate, as appropriate, with—

''(1) State regulatory authorities (as defined in section 3 of the Public Utility Regulatory Policies Act of 1978);

''(2) electric utilities;

''(3) Regional Transmission Organizations (as defined in section 3 of the Federal Power Act) and Independent System Operators (as defined in section 3 of the Federal Power Act);

''(4) private entities;

''(5) State agencies, metropolitan planning organizations, and local governments;

''(6) the Energy Workforce Transition Office established by section 512 of the Clean Energy Innovation and Deployment Act of 2020;

''(7) relevant public and private entities; and

''(8) labor organizations, such as those representing workers in the construction, manufacturing, or energy sectors.

''(d) TECHNICAL ASSISTANCE.—Upon request of the Governor of a State, the Secretary shall provide information and technical assistance in the development, implementation, or revision of a State energy plan.''.

**SEC. 502. AUTHORIZATION OF APPROPRIATIONS.**

(a) STATE ENERGY CONSERVATION PLANS.—Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended to read as follows:

''(f) AUTHORIZATION OF APPROPRIATIONS.—

''(1) STATE ENERGY CONSERVATION PLANS.—For the purpose of carrying out this part, there is authorized to be appropriated $100,000,000 for each of fiscal years 2022 through 2026.

''(2) STATE ENERGY PLANS.—In addition to the amounts authorized under paragraph (1), for the purpose of carrying out section 367, there is authorized to be appropriated $25,000,000 for each of fiscal years 2022 through 2026.''.

(b) TRANSPORTATION ELECTRIFICATION.—Section 131 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17011) is amended—

(1) in subsection (b)(6), by striking ''2008 through 2012'' and inserting ''2022 through 2026''; and

(2) in subsection (c)(4), by striking ''2008 through 2013'' and inserting ''2022 through 2026''.

# Subtitle B—Energy Workforce Transition

**SEC. 511. DEFINITIONS.**

In this subtitle:

(1) ADVISORY COMMITTEE.—The term ''Advisory Committee'' means the Energy Workforce Transition Advisory Committee established by section 512(d).

(2) COAL-RELATED FACILITY.—The term ''coal-related facility'' includes a coal mine or a coal-fueled electric generating facility.

(3) COAL-RELATED INDUSTRIAL FACILITY.—The term ''coal-related industrial facility'' includes a facility in the manufacturing and transportation supply chains of a coal-related facility.

(4) DIRECTOR.—The term ''Director'' means the Director of the Office.

(5) DISPROPORTIONATELY IMPACTED COMMUNITY.—The term ''disproportionately impacted community'' means any community of color, low-to-middle income community, or indigenous community that is or has been disproportionately impacted by energy-related pollution.

(6) ENERGY TRANSITION COMMUNITY.—The term ''energy transition community'' means a municipality, county, region, or Indian Tribe that has been affected since calendar year 2008 or later, or that demonstrates it will be impacted in the next 36 months, by the loss of 50 or more jobs in total as a result of the closure of a coal-related facility, a coal-related industrial facility, or another type of energy-related entity, as determined by the Office.

(7) ENERGY TRANSITION WORKER.—The term ''energy transition worker'' means a worker, including workers employed by contractors or subcontractors, terminated, laid off from employment, or whose work hours have been reduced, on or after the date of enactment of this Act, from a coal-related facility, coal-related industrial facility, or other energy-related entity.

(8) ENERGY WORKFORCE TRANSITION PLAN.—The term ''Energy Workforce Transition Plan'' means the plan developed under section 512(d).

(9) LABOR ORGANIZATION.—The term ''labor organization'' has the meaning given such term in section 2 of the National Labor Relations Act (29 U.S.C. 152).

(10) OFFICE.—The term ''Office'' means the Energy Workforce Transition Office established by section 512.

(11) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(12) WAGE DIFFERENTIAL BENEFIT.—The term ''wage differential benefit'' means the difference between the wages and other benefits provided by—

(A) a worker's wages and benefits earned in a coal-related facility, coal-related industrial-facility, or other energy-related entity on the day before the worker is terminated, laid off, or given a reduction in work-hours; and

(B) the worker's current wages and benefits, if any, after such a termination, lay-off, or reduction in work-hours.

**SEC. 512. ENERGY WORKFORCE TRANSITION OFFICE AND ADVISORY COMMITTEE.**

(a) ESTABLISHMENT.—There is hereby established within the Department of Energy an office to be known as the Energy Workforce Transition Office.

(b) EXEMPTION FROM REORGANIZATION.—The Office shall be exempt from the reorganization authority pro-

vided under section 643 of the Department of Energy Organization Act (42 U.S.C. 7253).

(c) DIRECTOR.—The Secretary shall appoint as the head of the Office a Director, who shall manage the operations of the Office.

(d) DUTIES OF THE OFFICE.—The duties of the Office shall be to—

(1) identify or estimate, to the extent practicable, with respect to the period that begins on the date of enactment of this Act and ends on January 1, 2030—

(A) the timing and location of facility closures and job terminations or layoffs in coal-related facilities, coal-related industrial-facilities, and other energy-related entities; and

(B) the impact of such terminations, layoffs, or reduced work-hours on affected workers (including those employed by a contractor or subcontractor), businesses, and energy transition communities; and

(2) provide administrative, logistical, research, and policy support and recommendations to the Advisory Committee.

(e) ENERGY WORKFORCE TRANSITION ADVISORY COMMITTEE.—

(1) ESTABLISHMENT.—There is hereby established an advisory committee, to be known as the Energy Workforce Transition Advisory Committee.

(2) ENERGY WORKFORCE TRANSITION PLAN.—

(A) IN GENERAL.—The Advisory Committee shall develop and finalize a plan, to be known as the Energy Workforce Transition Plan.

(B) PURPOSE.—The purpose of the Energy Workforce Transition Plan is to identify, align, and streamline resources to assist workers and communities impacted by the transition to a clean energy economy.

(C) PUBLIC MEETINGS.—In developing the Energy Workforce Transition Plan, the Advisory Committee shall hold no less than 4 public meetings in energy-transition communities, with opportunities for members of the public to provide input.

(D) CONTENTS.—The Energy Workforce Transition Plan shall include—

(i) a description of the challenges that energy transition communities encounter, including challenges associated with eco-

nomic and employment transition, and challenges particular to certain regions;

(ii) a description of benefits, grants, and other sources of funding to address the challenges described under clause (i) that may be accessed from Federal, State, local, and other sources without additional legislative authority or approval;

(iii) a description of sources of funding to address the challenges described under clause (i) that require additional legislative authority or approval;

(iv) recommendations for aligning local, State, Federal, and other resources to invest in energy transition communities and energy transition workers;

(v) recommendations for establishing benefits for energy transition workers, including consideration of—

(I) benefits similar in type, amount, and duration to Federal benefits that are not otherwise available to all energy transition workers;

(II) wage differential benefits for energy transition workers, including

consideration of eligibility and the duration of the benefits; and

(III) collaboration with existing or future employers of energy transition workers and relevant labor organizations, to inform energy transition workers how to apply for wage differential and other eligible benefits;

(vi) recommendations for grants and other programmatic support for energy transition communities and entities that support energy transition communities, including—

(I) counties, municipalities, cities, or other political subdivisions of a State;

(II) Indian Tribes;

(III) apprenticeships registered under the Act of August 16, 1937 (commonly known as the ''National Apprenticeship Act''; 50 Stat. 664, chapter 663; 29 U.S.C. 50 et seq.), that meet the requirements of parts 29 and 30 of title 29, Code of Federal

Regulations, as in effect on December 30, 2019;

(IV) institutions of higher education; and

(V) public or private nonprofit organizations or associations;

(vii) recommendations for establishing community transition resource centers in energy transition communities, in order to provide such communities a source of current information regarding the resources described in this subparagraph;

(viii) identification of the projected short-term and long-term costs of each activity recommended in the Energy Workforce Transition Plan, including worker benefits, grant programs, and other activities;

(ix) identification of the potential sources for sustainable short-term and long-term funding for implementing the activities recommended in the Energy Workforce Transition Plan;

(x) the potential advantages or disadvantages of extending activities rec-

ommended in the Energy Workforce Transition Plan to other sectors and industries affected by similar economic disruptions; and

(xi) recommendations, made in consultation with relevant Federal agencies, including the Department of Labor, and relevant State authorities, for efficient implementation of the activities recommended in the Energy Workforce Transition Plan.

(E) REPORT TO CONGRESS.—Not later than January 1, 2023, the Advisory Committee shall submit to Congress the Energy Workforce Transition Plan, as well as any recommendations to be considered in order to better achieve the plan.

(3) MEMBERSHIP.—The Advisory Committee shall consist of the following members:

(A) Ex officio members as follows:

(i) A representative of the Department of Labor.

(ii) A representative of the Economic Development Administration of the Department of Commerce.

(iii) A representative of the Executive Office of the President.

(B) The following members appointed by the Director:

(i) 4 representatives of energy transition workers, including at least one from a union representing coal workers, one from a building trades union, and one from a union representing other energy transition workers.

(ii) 3 representatives from energy transition communities.

(iii) 2 representatives with professional economic development or workforce retraining experience.

(iv) 2 representatives of disproportionately impacted communities.

(v) 2 representatives of electric utilities that, on the date of enactment of this Act, operate a coal-related facility.

(4) TERM.—Except as otherwise provided in this section, the term of appointment or designation of a member of the Advisory Committee shall end on January 1, 2027.

(5) EXPENSES.—In accordance with section 5703 of title 5, United States Code, each member of the Advisory Committee may receive payment of a per diem and reimbursement for actual and necessary expenses.

(6) CHAIR.—The Advisory Committee shall elect a chair from among its members to serve for a term not to exceed 2 years, as determined appropriate by the Advisory Committee.

(7) MEETINGS.—The Advisory Committee shall meet at least once every quarter. The chair of the Advisory Committee may call such additional meetings as are necessary for the Advisory Committee, with the Secretary, to develop and submit the Congress the Energy Workforce Transition Plan.

(8) ENGAGEMENT OF OTHERS.—The Advisory Committee may engage additional nonvoting members or advisors to provide additional expertise as needed.

**SEC. 513. ENERGY WORKFORCE TRANSITION PLANS AND REEMPLOYMENT OF AFFECTED WORKERS.**

(a) SUBMISSION.—The owner or operator of an energy-related facility shall to the extent practicable submit to the Director a workforce transition plan—

(1) with respect to a coal-fueled electric generating facility with a capacity of more than 50 megawatts, 12 months before the closure of the facility;

(2) with respect to a coal mine with a capacity of more than 4,000,000 short tons of coal per year, 12 months before the closure of the coal mine; and

(3) with respect to an energy-related facility not described under paragraph (1) or (2), not later than 60 days before the closure of the facility.

(b) CONTENTS.—To the extent practicable, a workforce transition plan submitted under subsection (a) shall include estimates of—

(1) the number of workers, including those employed by a contractor or subcontractor, employed by the coal-related facility before the closure of the facility;

(2) the total number of such workers, including those employed by a contractor or subcontractor, whose employment, as a result of the closure of the coal-related facility, will—

(A) be retained;

(B) be eliminated; and

(C) be given a reduction in hours;

(3) with respect to the workers, including those employed by a contractor or subcontractor, whose existing jobs will be eliminated as a result of the closure of the coal-related facility, the total number, and the number by job classification, of workers—

(A) whose employment will end without being offered other employment;

(B) who will retire as planned, be offered early retirement, or leave on their own;

(C) who will be retained by being transferred to other activities under the employment of the owner or operator; and

(D) who will be retained to continue to work for the owner or operator in a new job classification;

(4) with respect to the workers, including those employed by a contractor or subcontractor, whose existing jobs will be retained during the closure of the coal-related facility, the total number, and the number by job classification, of workers who will work on the decommissioning and environmental remediation of the facility; and

(5) if an owner or operator is replacing a coal-related facility with a new electric generating facility, the number of—

(A) workers from the closed coal-related facility who will be employed at the new electric generating facility; and

(B) jobs at the new electric generating facility that will be outsourced to contractors or subcontractors.

(c) PRIVACY.—A workforce transition plan submitted under subsection (a) shall not include information that violates privacy of workers or confidential business information.

(d) REGULATIONS.—Not later than 1 year after the date of enactment of this Act, the Secretary shall promulgate regulations to implement this subtitle.

# Subtitle C—Modern Energy Workforce Development

**SEC. 521. DEFINITIONS.**

In this subtitle:

(1) APPRENTICESHIP PROGRAM.—The term ''apprenticeship program'' means an apprenticeship registered under the Act of August 16, 1937 (29 U.S.C. 50 et seq.) (commonly known as the ''National Apprenticeship Act''), that meets the requirements of parts 29 and 30 of title 29, Code of Federal Regulations, as in effect on December 30, 2019.

(2) ENERGY TRANSITION WORKER.—The term ''energy transition worker'' means a worker, including workers employed by contractors or subcontractors, terminated, laid off from employment, or whose work-hours have been reduced, on or after the date of enactment of this Act, from a coal-related facility, coal-related industrial facility, or other energy-related entity.

(3) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given that term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(4) LABOR ORGANIZATION.—The term ''labor organization'' has the meaning given the term in section 2 of the National Labor Relations Act (29 U.S.C. 152).

(5) LOCAL EDUCATIONAL AGENCY.—The term ''local educational agency'' means a public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public schools in a city, county, township, school district, or other political subdivision of a State, or for a combination of school districts or counties as are recognized in a State as an administrative agen-

cy for its public elementary schools or secondary schools.

(6) LOCAL WORKFORCE DEVELOPMENT BOARD.—The term ''local workforce development board'' has the meaning given that term in section 3122 of title 29, United States Code.

(7) MINORITY INSTITUTION.—The term ''minority institution'' has the meaning given that term in section 365(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k(3)).

(8) NONPROFIT ORGANIZATION.—The term ''nonprofit organization'' means a group organized for purposes other than generating profit and in which no part of the organization's income is distributed to its members, directors, or officers.

(9) PRE-APPRENTICESHIP.—The term ''pre-apprenticeship'' means, with respect to a program, an initiative or set of strategies that—

(A) is designed to prepare participants to enter an apprenticeship program;

(B) is carried out by an eligible sponsor that has a documented partnership with one or more sponsors of apprenticeship programs; and

(C) includes each of the following:

(i) Training (including a curriculum for the training) aligned with industry standards related to an apprenticeship program and reviewed and approved annually by sponsors of the apprenticeship program within the documented partnership that will prepare participants by teaching the skills and competencies needed to enter one or more apprenticeship programs.

(ii) Hands-on training and theoretical education for participants that does not displace a paid employee.

(iii) A formal agreement with a sponsor of an apprenticeship program that would enable participants who successfully complete the pre-apprenticeship program—

(I) to enter into the apprenticeship program if a place in the program is available and if the participant meets the qualifications of the apprenticeship program; and

(II) to earn credits towards the apprenticeship program.

**SEC. 522. MODERN ENERGY WORKFORCE DEVELOPMENT.**

(a) ESTABLISHMENT.—The Secretary of Energy, in consultation with the Secretary of Labor, shall establish and carry out a comprehensive and nationwide program (referred to in this section as the ''Program'') to improve education and training for jobs in energy-related industries (including manufacturing, engineering, construction, and retrofitting jobs in energy-related industries) to increase the number of skilled workers trained to work in energy-related industries with existing or expected worker shortages.

(b) WORKFORCE DEVELOPMENT.—

(1) IN GENERAL.—In carrying out the Program, the Secretary shall—

(A) offer available resources to energy transition workers and underrepresented groups, including religious and ethnic minorities, women, veterans, individuals with disabilities, and socioeconomically disadvantaged individuals, to enter into science, technology, engineering, and mathematics fields;

(B) offer available resources to institutions of higher education to equip students with the skills, training, and technical expertise necessary to fill existing or expected worker shortages in energy-related industries;

(C) provide internships, fellowships, and traineeships at the Department of Energy, including at National Laboratories;

(D) provide energy workforce-related research grants and technical assistance to institutions of higher education, with priority given to minority institutions;

(E) ensure that internships, fellowships, traineeships, apprenticeships, and pre-apprenticeships provide the necessary skills and certifications for employment in energy-related industries with existing or expected worker shortages;

(F) ensure that the Program is in alignment with the Minorities in Energy Initiative of the Department of Energy;

(G) ensure alignment with other programs that are carrying out the Minorities in Energy Initiative of the Department of Energy;

(H) to the maximum extent practicable, collaborate with and support State workforce development programs to maximize the efficiency of the Program; and

(I) work with labor organizations and institutions of higher education to promote pre-ap-

prenticeship as a pathway to an energy-related career through an apprenticeship program.

(2) PRIORITY.—In carrying out the Program, the Secretary shall—

(A) prioritize the education and training of energy transition workers and underrepresented groups, including religious and ethnic minorities, women, veterans, individuals with disabilities, and socioeconomically disadvantaged individuals for jobs in energy-related industries, especially construction; and

(B) partner with labor organizations that have multi-year records of training and supporting energy transition workers and underrepresented groups to successful completion of pre-apprenticeship and apprenticeship programs.

(c) DIRECT ASSISTANCE.—

(1) IN GENERAL.—In carrying out the Program, the Secretary shall provide direct assistance (including financial assistance awards, technical expertise, and guidance) to local educational agencies, local workforce development boards, institutions of higher education, nonprofit organizations, labor or-

ganizations, apprenticeship programs, and pre-apprenticeship programs.

(2) DISTRIBUTION.—The Secretary shall distribute direct assistance under paragraph (1) in a manner that—

(A) is reflective of the needs of, and demand for jobs in, an energy-related industry; and

(B) is consistent with the information obtained under subsections (e)(4) and (j).

(3) RESTRICTION.—In providing financial assistance awards under paragraph (1) for education and training relating to construction, eligible entities shall only include apprenticeship programs, and pre-apprenticeship programs that have an articulation agreement with one or more apprenticeship programs.

(d) RESOURCE CENTER.—The Secretary shall establish an online resource center—

(1) to maintain and update information and resources on training programs for jobs in energy-related industries (including manufacturing, engineering, construction, and retrofitting jobs in energy-related industries); and

(2) to connect local educational agencies, State educational agencies, institutions of higher education, local workforce development boards, State workforce development boards, nonprofit organizations, labor organizations, apprenticeship programs and pre-apprenticeship programs that are working to develop and implement training programs for the jobs described in paragraph (1) to share resources, approaches, and best practices.

(e) COLLABORATION AND REPORT.—In carrying out the Program, the Secretary shall—

(1) collaborate with local educational agencies, institutions of higher education, local workforce development boards, nonprofit organizations, labor organizations, apprenticeship programs and pre-apprenticeship programs, and energy-related industries;

(2) facilitate the sharing of best practices and approaches that best suit local, State, and national needs;

(3) encourage and foster collaboration, mentorship, and partnership between—

(A) industry partners, local workforce development boards, nonprofit organizations, labor organizations, apprenticeship and pre-ap-

prenticeship programs, that provide effective training programs for jobs in energy-related industries; and

(B) local educational agencies, State educational agencies, and institutions of higher education that seek to establish those programs; and

(4) collaborate with the Secretary of Labor, the Commissioner of the Bureau of Labor Statistics, the Secretary of Commerce, the Director of the Bureau of the Census, labor organizations, and energy-related industries—

(A) to develop a comprehensive and detailed understanding of the workforce needs of, and job opportunities in, energy-related industries, by State and by region; and

(B) to publish an annual report on job creation in the sectors of energy-related industries identified under subsection (j).

(f) BEST PRACTICES FOR EDUCATIONAL INSTITUTIONS.—

(1) IN GENERAL.—The Secretary, in collaboration with the Secretary of Education, the Secretary of Commerce, the Secretary of Labor, and the Director of the National Science Foundation, shall de-

velop and report best practices for providing students with skills necessary for jobs in energy-related industries (including manufacturing, engineering, construction, and retrofitting jobs in energy-related industries) to local educational agencies, institutions of higher education, and apprenticeship programs.

(2) ENERGY EFFICIENCY AND COMMUNITY ENERGY RESILIENCY INITIATIVES.—The Secretary shall develop and provide best practices for teaching students and the families of those students about energy efficiency and community energy resiliency.

(3) INPUT FROM INDUSTRY LABOR ORGANIZATIONS.—In carrying out paragraphs (1) and (2), the Secretary shall solicit input from energy-related industries and labor organizations, especially sectors with existing or expected worker shortages or expertise in energy efficiency.

(4) STEM EDUCATION.—In carrying out paragraphs (1) and (2), the Secretary shall promote education in science, technology, engineering, and mathematics.

(g) OUTREACH TO MINORITY INSTITUTIONS.—In carrying out the Program, the Secretary shall—

(1) increase the Department of Energy's outreach to minority institutions;

(2) work with minority institutions to increase the number of skilled minorities and women qualified for jobs in energy-related industries (including manufacturing, engineering, construction, and retrofitting jobs in energy-related industries);

(3) work with energy-related industries to improve opportunities for students of minority institutions to participate in industry internships and cooperative work-study programs; and

(4) work with the Directors of the National Laboratories to increase the participation of students from minority institutions in internships, fellowships, training programs, and employment at those laboratories.

(h) OUTREACH TO ENERGY TRANSITION WORKERS.—The Secretary shall—

(1) work with employers and job trainers, including apprenticeship and pre-apprenticeship programs, in preparing energy transition workers for emerging jobs in energy-related industries (including manufacturing, engineering, construction, and retrofitting jobs in energy-related industries);

(2) work with energy transition workers to increase the number of individuals trained for jobs in energy-related industries (including manufacturing,

engineering, construction, and retrofitting jobs in energy-related industries); and

(3) work with labor organizations and energy-related industry partners to improve opportunities for energy transition workers to participate in industry internships, cooperative work-study programs, apprenticeships, and pre-apprenticeships.

(i) ENROLLMENT IN TRAINING AND APPRENTICESHIP AND PRE-APPRENTICESHIP PROGRAMS.—The Secretary shall provide assistance to industry, local workforce development boards, State workforce development boards, nonprofit organizations, labor organizations, and apprenticeship programs in identifying students and other candidates, including energy transition workers and underrepresented groups, including religious and ethnic minorities, women, veterans, individuals with disabilities, and socioeconomically disadvantaged individuals, to enroll in training and apprenticeship programs and pre-apprenticeship programs for jobs in energy-related industries.

(j) GUIDELINES TO DEVELOP SKILLS FOR A MODERN ENERGY INDUSTRY WORKFORCE.—The Secretary shall, in collaboration with energy-related industries and labor organizations, identify the sectors within each energy-related industry that have the greatest demand for workers and develop guidelines for the skills necessary to

work in those sectors. The Secretary shall identify the sectors in consultation with a broad cross-section of the energy industry, including relevant energy industry organizations, public and private employers, labor organizations, postsecondary education institutions, and workforce development boards.

(k) RULE OF CONSTRUCTION.—Nothing in this section authorizes any department, agency, officer, or employee of the Federal Government to exercise any direction, supervision, or control over—

(1) the curriculum, program of instruction, or instructional content of any State, local educational agency, or school; or

(2) the selection of library resources, textbooks, or other printed or published instructional materials used by any State, local educational agency, or school.

**SEC. 523. ZERO-EMISSION ECONOMY WORKFORCE PILOT PROGRAM.**

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE ENTITY.—The term ''eligible entity'' means a National Laboratory, business, or labor organization that demonstrates success in placing graduates of pre-apprenticeship or apprenticeship programs in jobs relevant to such programs and—

(A) is directly involved with zero-emission electricity technology, energy efficiency, or other activity that results in a reduction in greenhouse gas emissions, as determined by the Secretary;

(B) works on behalf of a business or labor organization that is directly involved with zero-emission electricity technology, energy efficiency, or other activity that results in a reduction in greenhouse gas emissions, as determined by the Secretary;

(C) provides services related to—

(i) zero-emission electricity technology deployment and maintenance and energy efficiency;

(ii) grid modernization; or

(iii) reduction in greenhouse gas emissions through the use of zero-emission energy technologies;

(D) has knowledge of technician workforce needs of a National Laboratory or covered facility of the National Nuclear security Administration and the associated security requirements of such laboratory or facility;

(E) demonstrates experience in implementing and operating apprenticeship programs or pre-apprenticeship programs that provide a direct pathway to an energy-related career; or

(F) demonstrates success in placing graduates of pre-apprenticeship or apprenticeship programs in jobs relevant to such programs.

(2) NATIONAL LABORATORY.—The term ''National Laboratory'' means any of the following laboratories owned by the Department of Energy:

(A) Ames Laboratory.

(B) Argonne National Laboratory.

(C) Brookhaven National Laboratory.

(D) Fermi National Accelerator Laboratory.

(E) Idaho National Laboratory.

(F) Lawrence Berkeley National Laboratory.

(G) Lawrence Livermore National Laboratory.

(H) Los Alamos National Laboratory.

(I) National Energy Technology Laboratory.

(J) National Renewable Energy Laboratory.

(K) Oak Ridge National Laboratory.

(L) Pacific Northwest National Laboratory.

(M) Princeton Plasma Physics Laboratory.

(N) Sandia National Laboratories.

(O) Savannah River National Laboratory.

(P) Stanford Linear Accelerator Center.

(Q) Thomas Jefferson National Accelerator Facility.

(3) PILOT PROGRAM.—The term ''pilot program'' means the pilot program established under subsection (b).

(b) ESTABLISHMENT.—The Secretary of Energy, in consultation with the Secretary of Labor, shall establish a pilot program to provide competitively awarded cost-shared grants to eligible entities to pay for on-the-job training of a new or existing employee—

(1) to work in zero-emission electricity generation, energy efficiency, or grid modernization;

(2) to work otherwise on the reduction of greenhouse gas emissions; or

(3) to participate in a pre-apprenticeship program that provides a direct pathway to an energy-related career in construction through one or more apprenticeship programs.

(c) GRANTS.—

(1) IN GENERAL.—An eligible entity desiring a grant under the pilot program shall submit to the Secretary of Energy an application at such time, in such manner, and containing such information as the Secretary of Energy may require.

(2) PRIORITY FOR TARGETED COMMUNITIES.—In providing grants under the pilot program, the Secretary of Energy shall give priority to an eligible entity that—

(A) recruits employees—

(i) from the one or more communities that are served by the eligible entity; and

(ii) that are minorities, women, veterans, individuals from Indian Tribes or Tribal organizations, or energy transition workers;

(B) provides trainees with the opportunity to obtain real-world experience; or

(C) has fewer than 100 employees; and

(D) in the case of a pre-apprenticeship program, demonstrates—

(i) a multi-year record of successfully recruiting energy transition workers, minorities, women, and veterans for training

and supporting such individuals to a successful completion of a pre-apprenticeship program; and

(ii) a successful multi-year record of placing the majority of pre-apprenticeship program graduates into apprenticeship programs in the construction industry.

(3) USE OF GRANT FOR FEDERAL SHARE.—

(A) IN GENERAL.—An eligible entity shall use a grant received under the pilot program to—

(i) pay the Federal share of the cost of providing on-the-job training for an employee, in accordance with subparagraph (B); or

(ii) in the case of a pre-apprenticeship program—

(I) recruiting minorities, women, and veterans for training;

(II) supporting those individuals in the successful completion of the pre-apprenticeship program; and

(III) carrying out any other activity of the pre-apprenticeship program, as determined to be appropriate

by the Secretary of Labor, in consultation with the Secretary.

(B) FEDERAL SHARE AMOUNT.—The Federal share described in subparagraph (A)(i) shall not exceed—

(i) in the case of an eligible entity with 20 or fewer employees, 45 percent of the cost of on-the-job-training for an employee;

(ii) in the case of an eligible entity with not fewer than 21 employees and not more than 99 employees, 37.5 percent of the cost of on-the-job-training for an employee;

(iii) in the case of an eligible entity with not fewer than 100 employees, 25 percent of the cost of on-the-job-training for an employee; and

(iv) in the case of an eligible entity that administers a pre-apprenticeship program, 75 percent of the cost of the pre-apprenticeship program.

(4) EMPLOYER PAYMENT OF NON-FEDERAL SHARE.—

(A) IN GENERAL.—The non-Federal share of the cost of providing on-the-job training for an employee under a grant received under the pilot program shall be paid in cash or in kind by the employer of the employee receiving the training or by a nonprofit organization.

(B) INCLUSIONS.—The non-Federal share described in subparagraph (A) may include the amount of wages paid by the employer to the employee during the time that the employee is receiving on-the-job training, as fairly evaluated by the Secretary of Labor.

(5) CONSTRUCTION.—In providing grants under the pilot program for training, recruitment, and support relating to construction, eligible entities shall only include pre-apprenticeship programs that have an articulation agreement with one or more apprenticeship programs.

(6) GRANT AMOUNT.—An eligible entity may not receive more than $1,000,000 per fiscal year in grant funds under the pilot program.

**SEC. 524. UNIVERSITY ZERO-EMISSION ENERGY LEADERSHIP PROGRAM.**

(a) ESTABLISHMENT.—

(1) IN GENERAL.—Subtitle E of title IX of the Energy Policy Act of 2005 is further amended by adding at the end the following:

**"SEC. 959C. UNIVERSITY ZERO-EMISSION ENERGY LEADERSHIP PROGRAM.**

''(a) ESTABLISHMENT.—The Secretary of Energy shall establish a program, to be known as the 'University Zero-Emission Energy Leadership Program'.

''(b) USE OF FUNDS.—Amounts made available to carry out the University Zero-Emission Energy Leadership Program—

''(1) shall be used to provide financial assistance for scholarships, fellowships, and research and development projects at institutions of higher education in areas relevant to departmental missions in research, development, demonstration, and deployment activities for zero-emission technologies;

''(2) may be used to provide financial assistance to businesses to offset the costs of a partnership with, or investments in, institutions of higher education in areas relevant to departmental missions in research, development, demonstration, and deployment activities for zero-emission technologies; and

''(3) may be used to provide financial assistance for a scholarship, fellowship, or multiyear research

and development project that does not align directly with a departmental mission, if the activity for which assistance is provided promotes a zero-emission energy transition.''.

(2) TABLE OF CONTENTS.—The table of contents for the Energy Policy Act of 2005 is further amended by adding after the item relating to section 959B the following:

''Sec. 959C. University Zero-Emission Energy Leadership Program.''.

(b) REPEAL.—The Energy and Water Development and Related Agencies Appropriations Act, 2009 is amended by striking section 313.

**SEC. 525. CLIMATE RESILIENCY CORPS.**

(a) DEFINITIONS.—In this section:

(1) ENERGY TRANSITION WORKERS.—The term ''energy transition workers'' means workers, including workers employed by contractors or subcontractors, terminated, laid off from employment, or whose work-hours have been reduced, on or after the date of enactment of this Act, from a coal-related facility, coal-related industry, or other energy-related entity.

(2) MEMBERS OF THE RESERVE COMPONENTS OF THE ARMED FORCES.—The term ''members of the reserve components of the Armed Forces'' means members of the—

(A) Army National Guard of the United States;

(B) Army Reserve;

(C) Navy Reserve;

(D) Marine Corps Reserve;

(E) Air National Guard of the United States;

(F) Air Force Reserve; and

(G) Coast Guard Reserve.

(3) UNDEREMPLOYED.—The term ''underemployed'' means individuals who are employed at less than full-time because they are unable to obtain full time employment or who are employed at jobs inadequate to their training or economic needs.

(4) VETERANS OF THE ARMED FORCES.—The term ''veterans of the Armed Forces'' means a person who served in the active military, naval, or air service and who was discharged or released under conditions other than dishonorable.

(b) ESTABLISHMENT.—In order to relieve distress and unemployment in the United States and to provide for the restoration of depleted natural resources in the United States and the advancement of an orderly program of useful public works, the President shall establish and operate a Climate Resiliency Corps to employ residents of

the United States, who are unemployed or underemployed, in the construction, maintenance, and carrying out of works of a public nature in connection with, but not limited to—

(1) coastal restoration, including—

(A) adaptive management;

(B) exposed element relocation, elevation, or removal;

(C) flood and storm surge barrier;

(D) sea dikes;

(E) seawall or revetment;

(F) spatial planning and integrated coastal zone management planning;

(G) temporary and demountable flood defenses;

(H) rainwater harvesting;

(I) sustainable urban drainage systems; and

(J) wet and dry proofing;

(2) resilient infrastructure, including—

(A) deployment and management of resilient transportation and other infrastructure systems;

(B) sustainable urban underground structures development; and

(C) earthquake resiliency and interaction of above- and below-ground infrastructure;

(3) natural solutions, including—

(A) restoration of wetlands, mangroves, marshes, seagrasses, and oyster reefs, and the installation of living shorelines;

(B) green roofs;

(C) rain gardens;

(D) bioswales;

(E) urban tree canopies; and

(F) permeable pavements; and

(4) other activities that are deemed necessary by the President, with guidance from the Secretary of Energy, the Secretary of Agriculture, the Secretary of the Interior, the Administrator of the Environmental Protection Agency, or other relevant agency leaders.

(c) ROLE OF FEDERAL AGENCIES.—To operate the Climate Resiliency Corps, the President may utilize existing Federal departments and agencies, including the Department of Labor, the Department of Defense, the National Guard Bureau, the Department of the Interior, the Department of Agriculture, the Army Corps of Engineers, the Department of Transportation, the Department of En-

ergy, the Environmental Protection Agency, and Federal governmental corporations.

(d) CONTRACT AUTHORITY.—(1) For the purpose of carrying out this section, the President may enter into such contracts or agreements with States as may be necessary, including provisions for utilization of existing State administrative agencies.

(2) States entering into such contracts or agreements shall provide written assurances to the President that all laborers and mechanics employed by contractors or subcontractors in the performance of construction work financed in whole or in part with assistance under this section shall be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

(e) ACQUISITION OF REAL PROPERTY.—The President, or the head of any department or agency authorized by the President to construct any project or to carry on any public works under this Act, may acquire real property for such project or public work by purchase, donation, condemnation, or otherwise.

(f) ADMINISTRATION.—

(1) EMPLOYMENT PREFERENCE.—If the President determines that amounts appropriated to carry

out a Climate Resiliency Corps under this Act for a fiscal year will be insufficient to employ all of the citizens of the United States described in section (b) who are seeking or likely to seek employment in the Climate Resiliency Corps and continue the employment of current employees who desire to remain in the Climate Resiliency Corps, the President shall give priority to the hiring of additional persons in the Climate Resiliency Corps to—

(A) energy transition workers;

(B) unemployed veterans of the Armed Forces and unemployed members of the reserve components of the Armed Forces;

(C) unemployed citizens who have exhausted their entitlement to unemployment compensation;

(D) unemployed citizens, who immediately before employment in the Climate Resiliency Corps, are eligible for unemployment compensation payable under any State law or Federal unemployment compensation law, including any additional compensation or extended compensation under such laws; and

(E) other citizens from minority groups, including, religious and ethnic minorities, women, and individuals with disabilities.

(2) HOUSING AND CARE OF EMPLOYEES.—The President may provide housing for persons employed in the Climate Resiliency Corps and furnish them with such subsistence, clothing, medical attendance and hospitalization, and cash allowance, as may be necessary, during the period they are so employed.

(3) TRANSPORTATION.—The President may provide for the transportation of persons employed in the Climate Resiliency Corps to and from the places of employment.

(4) NON-DISCRIMINATION.—In employing citizens for the Climate Resiliency Corps, no discrimination shall occur, in accordance with Federal employment law, except that no individual under conviction for crime and serving sentence therefore shall be employed under the provisions of this Act.

(g) USE OF UNOBLIGATED FUNDS APPROPRIATED FOR PUBLIC WORKS.—

(1) USE OF EXISTING FUNDS.—The President may use any moneys previously appropriated for public works and unobligated as of the date of the

enactment of this Act to establish and operate a Climate Resiliency Corps under this section.

(2) USE TO RELIEVE UNEMPLOYMENT.—Not less than 80 percent of the funds utilized pursuant to this subsection must be used to provide for the employment of individuals under this section.

(3) EXCEPTIONS.—Paragraph (1) shall not apply to—

(A) unobligated moneys appropriated for public works on which actual construction has been commenced as of the date of the enactment of this Act or may be commenced within 90 days after that date; and

(B) maintenance funds for river and harbor improvements already allocated as of the date of the enactment of this Act.

(h) TERMINATION.—The authority of the President to establish and operate a Climate Resilience Corps under this section expires on September 30, 2035.

**SEC. 526. AUTHORIZATION OF APPROPRIATIONS.**

There are authorized to be appropriated to carry out this subtitle such sums as may be necessary for each of fiscal years 2021 through 2035.

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