

116<sup>TH</sup> CONGRESS  
2<sup>D</sup> 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.

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

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

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

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

Sec. 1. Short title; table of contents.

TITLE I—INVESTMENT IN CLEAN ENERGY TECHNOLOGY  
INNOVATION

Sec. 100. Purpose.

Subtitle A—Clean Energy Deployment Administration

- Sec. 101. Definitions.
- Sec. 102. Energy technology deployment goals.
- Sec. 103. Clean Energy Deployment Administration.
- Sec. 104. Administration functions.
- Sec. 105. Improvements to existing clean energy investment programs.
- Sec. 106. Federal credit authority.
- Sec. 107. General provisions.

Subtitle B—Beneficial Electrification

- Sec. 111. Innovation in electric vehicles through the advanced technology manufacturing incentive program.
- Sec. 112. Deployment of electric vehicles through tax credits.
- Sec. 113. Deployment of electric vehicle charging infrastructure through supply equipment programs.
- Sec. 114. Deployment of energy efficient buildings through tax credits.
- Sec. 115. Deployment of energy efficient buildings through grants.

Subtitle C—Zero-Emission Electricity Generation Technology

- Sec. 121. Deployment of solar and wind technology through tax credits.
- Sec. 122. Energy tax credit monetization.
- Sec. 123. Innovation in energy storage through research, development, and demonstration.
- Sec. 124. Deployment of energy storage through tax credits.
- Sec. 125. Normalization opt-out for utilities.
- Sec. 126. Deployment of carbon capture utilization and storage through tax credits.
- Sec. 127. Innovation in advanced nuclear technology through demonstration.
- Sec. 128. Innovation in carbon removal, utilization, and storage through research, development, and demonstration.
- Sec. 129. Deployment of electric grid modernization through grants.
- Sec. 130. Prize competition for electricity-related technologies for remote communities.
- Sec. 131. Report to Congress.

Subtitle D—Davis-Bacon Compliance

- Sec. 141. Davis-Bacon compliance.

TITLE II—ZERO-EMISSION ELECTRICITY STANDARD

Sec. 200. Purpose.

Subtitle A—Zero-Emission Electricity Standard

- Sec. 201. Definitions.
- Sec. 202. Zero-emission electricity requirement.
- Sec. 203. Zero-emission electricity credit trading program.
- Sec. 204. Determination and issuance of quantity of zero-emission electricity credits.

- Sec. 205. Carbon Mitigation Fund.
- Sec. 206. State programs.
- Sec. 207. Report to Congress.
- Sec. 208. Information collection.
- Sec. 209. Civil penalties.
- Sec. 210. Regulations.

Subtitle B—Methane Regulation

- Sec. 211. Methane regulation.

TITLE III—INCENTIVES FOR THE ACCELERATED DEPLOYMENT  
OF 100-PERCENT ZERO-EMISSION ELECTRICITY SYSTEM

- Sec. 300. Purpose.
- Sec. 301. Zero-emission electricity acceleration investment tax credit.
- Sec. 302. Zero-emission electricity acceleration grants.

TITLE IV—LOW-INCOME RATE-PAYER PROTECTION

- Sec. 400. Purpose.
- Sec. 401. Weatherization assistance program.
- Sec. 402. LIHEAP authorization.

TITLE V—ENERGY WORKFORCE TRANSITION AND TRAINING

- Sec. 500. Purposes.

Subtitle A—State Energy Plans

- Sec. 501. State energy plans.
- Sec. 502. Authorization of appropriations.

Subtitle B—Energy Workforce Transition

- Sec. 511. Definitions.
- Sec. 512. Energy Workforce Transition Office and Advisory Committee.
- Sec. 513. Energy workforce transition plans and reemployment of affected workers.

Subtitle C—Modern Energy Workforce Development

- Sec. 521. Definitions.
- Sec. 522. Modern energy workforce development.
- Sec. 523. Zero-emission economy workforce pilot program.
- Sec. 524. University Zero-Emission Energy Leadership Program.
- Sec. 525. Climate Resiliency Corps.
- Sec. 526. Authorization of appropriations.

1 **TITLE I—INVESTMENT IN CLEAN**  
2 **ENERGY TECHNOLOGY INNO-**  
3 **VATION**

4 **SEC. 100. PURPOSE.**

5 The purpose of this title is to employ a wide range  
6 of measures to bring promising clean energy technologies  
7 to the point of commercial-availability, including through  
8 the activities of a Clean Energy Deployment Administra-  
9 tion.

10 **Subtitle A—Clean Energy**  
11 **Deployment Administration**

12 **SEC. 101. DEFINITIONS.**

13 In this subtitle:

14 (1) ADMINISTRATION.—The term “Administra-  
15 tion” means the Clean Energy Deployment Adminis-  
16 tration established by section 103.

17 (2) ADMINISTRATOR.—The term “Adminis-  
18 trator” means the Administrator of the Administra-  
19 tion.

20 (3) ADVISORY COUNCIL.—The term “Advisory  
21 Council” means the Energy Technology Advisory  
22 Council of the Administration.

23 (4) BREAKTHROUGH TECHNOLOGY.—The term  
24 “breakthrough technology” means a clean energy  
25 technology that—

1 (A) presents a significant opportunity to  
2 advance the goals developed by the Secretary  
3 under section 102, as assessed under the meth-  
4 odology established by the Advisory Council;  
5 and

6 (B) has not been determined by the Sec-  
7 retary to be commercially ready.

8 (5) CLEAN ENERGY TECHNOLOGY.—The term  
9 “clean energy technology” means a technology re-  
10 lated to the production, use, transmission, storage,  
11 control, or conservation of energy that will con-  
12 tribute to the stabilization of the climate by reducing  
13 greenhouse gas emissions or sequestering or utilizing  
14 carbon dioxide and—

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

18 (B) transmit, distribute, or transport en-  
19 ergy with greater effectiveness through the in-  
20 frastructure of the United States; or

21 (C) increase and diversify the sources of  
22 energy in the United States in a way that will  
23 reduce risk to human health, safety, and wel-  
24 fare and the environment and create energy se-  
25 curity.

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

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

7           (8) ENERGY TRANSITION COMMUNITY.—The  
8           term “energy transition community” has the mean-  
9           ing given such term in section 511 of this Act.

10          (9) FINANCIAL INSTITUTION.—The term “fi-  
11          nancial institution” means—

12                 (A) an insured bank (as defined in section  
13                 3(h) of the Federal Deposit Insurance Act (12  
14                 U.S.C. 1813(h)));

15                 (B) a commercial bank or trust company;

16                 (C) a private banker;

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

19                 (E) any credit union;

20                 (F) a thrift institution;

21                 (G) a broker or dealer registered with the  
22                 Securities and Exchange Commission under the  
23                 Securities Exchange Act of 1934 (15 U.S.C.  
24                 78a et seq.);

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

3 (I) an investment banker or investment  
4 company;

5 (J) an insurance company; and

6 (K) a loan or finance company.

7 (10) FUND.—The term “Fund” means the  
8 Clean Energy Investment Fund established by sec-  
9 tion 105(a).

10 (11) LOAN GUARANTEE.—The term “loan guar-  
11 antee” has the meaning given the term in section  
12 502 of the Federal Credit Reform Act of 1990 (2  
13 U.S.C. 661a).

14 (12) NATIONAL LABORATORY.—The term “Na-  
15 tional Laboratory” has the meaning given the term  
16 in section 2 of the Energy Policy Act of 2005 (42  
17 U.S.C. 15801).

18 (13) SECRETARY.—The term “Secretary”  
19 means the Secretary of Energy.

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

23 (15) SMALL BUSINESS.—The term “small busi-  
24 ness” means a business which is independently  
25 owned and operated and which is not dominant in

1 its field of operation. The term “small business”  
2 may be further defined by the Administrator by the  
3 number of employees, dollar volume of business, net  
4 worth, net income, or other factors.

5 (16) STATE.—The term “State” means—

6 (A) a State;

7 (B) the District of Columbia;

8 (C) the Commonwealth of Puerto Rico;

9 and

10 (D) any other territory or possession of the

11 United States.

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

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

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



1 projected energy demand of the United States in  
2 2050;

3 (2) clean energy technologies in vehicles and  
4 fuels that will substantially reduce the reliance of  
5 the United States on foreign sources of energy and  
6 insulate consumers from the volatility of global en-  
7 ergy markets;

8 (3) a domestic commercialization and manufac-  
9 turing capacity that will establish the United States  
10 as a world leader in clean energy technologies across  
11 multiple sectors;

12 (4) the installation of electricity transmission  
13 infrastructure with the capacity to provide the cost-  
14 effective deployment of zero-emission electricity tech-  
15 nologies appropriate to each region of the United  
16 States;

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

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

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

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

1 cement, through the use of clean energy technologies  
2 that will establish the United States as a world lead-  
3 er in the environmentally-sustainable production of  
4 such commodities and materials;

5 (9) a robust, efficient, and interactive electricity  
6 transmission grid that will allow for the incorpora-  
7 tion of clean energy technologies, distributed genera-  
8 tion, smart grid functions, and demand-response in  
9 each regional electric grid;

10 (10) a variety of financial products intended to  
11 allow owners and users of residential, retail, com-  
12 mercial, and industrial buildings to make energy ef-  
13 ficiency and distributed generation technology in-  
14 vestments with reasonable payback periods; and

15 (11) such other goals as the Secretary, in con-  
16 sultation with the Advisory Council, determines to be  
17 consistent with this subtitle.

18 (b) REVISIONS.—The Secretary shall revise the goals  
19 established under subsection (a), from time to time as ap-  
20 propriate, to account for advances in technology and infra-  
21 structure.

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

23 (a) ESTABLISHMENT.—

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

1 known as the Clean Energy Deployment Administra-  
2 tion. There shall be at the head of the Administra-  
3 tion an Administrator and a Board of Directors,  
4 who shall be appointed by the President with the ad-  
5 vice and consent of the Senate.

6 (2) STATUS.—

7 (A) IN GENERAL.—The Administration  
8 (including officers, employees, and agents of the  
9 Administration) shall not be responsible to, or  
10 subject to the authority, direction, or control of,  
11 any other officer, employee, or agent of the De-  
12 partment of Energy other than the Secretary,  
13 acting through the Administrator.

14 (B) EXEMPTION FROM REORGANIZA-  
15 TION.—The Administration shall be exempt  
16 from the reorganization authority provided  
17 under section 643 of the Department of Energy  
18 Organization Act (42 U.S.C. 7253).

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

22 (i) in paragraph (1), by inserting “the  
23 Administrator of the Clean Energy Deploy-  
24 ment Administration;” after “Export-Im-  
25 port Bank;”; and

1 (ii) in paragraph (2), by inserting  
2 “the Clean Energy Deployment Adminis-  
3 tration,” after “Export-Import Bank,”.

4 (3) OFFICES.—

5 (A) PRINCIPAL OFFICE.—The Administra-  
6 tion shall—

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

10 (ii) for purposes of venue in civil ac-  
11 tions, be considered to be a resident of the  
12 District of Columbia.

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

18 (b) ADMINISTRATOR.—

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

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

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

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

3           (2) DUTIES.—The Administrator shall—

4                   (A) serve as—

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

7                           (ii) the Chairman of the Board of Di-  
8                           rectors;

9                   (B) consult with the Secretary of Agri-  
10                   culture, the Secretary of the Interior, the Ad-  
11                   ministrators of the Environmental Protection  
12                   Agency, and the heads of other agencies as ap-  
13                   propriate, in carrying out the duties described  
14                   in this paragraph;

15                   (C) ensure that—

16                           (i) the Administration operates in a  
17                           safe and sound manner, including mainte-  
18                           nance of adequate capital and internal con-  
19                           trols (consistent with section 404 of the  
20                           Sarbanes-Oxley Act of 2002 (15 U.S.C.  
21                           7262));

22                           (ii) the operations and activities of the  
23                           Administration foster liquid, efficient, com-  
24                           petitive, and resilient energy and energy ef-  
25                           ficiency finance markets;

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

5 (iv) the activities of the Administra-  
6 tion and the manner in which the Adminis-  
7 tration is operated are consistent with the  
8 public interest;

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

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

15 (ii) promote transparency and open-  
16 ness in Administration operations;

17 (iii) afford the Administration with  
18 sufficient flexibility to carry out this sub-  
19 title;

20 (iv) provide for the efficient proc-  
21 essing of applications;

22 (v) promote the participation of pri-  
23 vate financial institutions and other  
24 sources of private capital in investments,

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

3 (vi) promote the availability of finan-  
4 cial products to small business by working  
5 with entities that have appropriate exper-  
6 tise in extending credit or other relevant fi-  
7 nancial services to small businesses that  
8 are developing clean energy technologies;

9 (E) ensure, to the maximum extent prac-  
10 ticable and to the extent of available resources,  
11 that on the request of any energy transition  
12 community or Indian Tribe, such energy transi-  
13 tion community or Indian Tribe shall have  
14 available scientific and technical information  
15 and expertise for use in the regulation, develop-  
16 ment, and management of clean energy tech-  
17 nologies, either—

18 (i) directly, acting through Federal of-  
19 ficials within the Administration; or

20 (ii) indirectly, by providing financial  
21 assistance to an energy transition commu-  
22 nity or an Indian Tribe to secure inde-  
23 pendent assistance in the regulation, devel-  
24 opment, and management of clean energy  
25 technologies; and

1 (F) with the concurrence of the Board of  
2 Directors, establish expected loss reserves for  
3 the support provided by the Administration con-  
4 sistent with section 104(a).

5 (c) BOARD OF DIRECTORS.—

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

8 (A) the Secretary or the designee of the  
9 Secretary, who shall serve as an ex-officio vot-  
10 ing member of the Board of Directors;

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

13 (C) 7 additional members who shall—

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

17 (ii) have experience in banking or fi-  
18 nancial services relevant to the operations  
19 of the Administration, including individuals  
20 with substantial experience in the develop-  
21 ment of energy projects, the electricity  
22 generation sector, the transportation sec-  
23 tor, the manufacturing sector, and the en-  
24 ergy efficiency sector.

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



1 (A) oversee the operations of the Adminis-  
2 tration and ensure industry best practices are  
3 followed in all financial transactions involving  
4 the Administration;

5 (B) consult with the Administrator on the  
6 general policies and procedures of the Adminis-  
7 tration to ensure that the interests of the tax-  
8 payers are protected;

9 (C) ensure that the portfolio of invest-  
10 ments of the Administration are consistent with  
11 this subtitle and with the long-term financial  
12 stability of the Administration;

13 (D) ensure that the operations and activi-  
14 ties of the Administration are consistent with  
15 the development of a robust private sector that  
16 can provide commercial loans or financing prod-  
17 ucts for clean energy technologies; and

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

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

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

6           (5) COMPENSATION OF MEMBERS.—An ap-  
7 pointed member of the Board of Directors shall be  
8 compensated at a rate equal to the daily equivalent  
9 of the annual rate of basic pay prescribed for level  
10 III of the Executive Schedule under section 5314 of  
11 title 5, United States Code, for each day (including  
12 travel time) during which the member is engaged in  
13 the performance of the duties of the Board of Direc-  
14 tors.

15 (d) ENERGY TECHNOLOGY ADVISORY COUNCIL.—

16           (1) IN GENERAL.—The Administration shall  
17 have an Energy Technology Advisory Council con-  
18 sisting of—

19                   (A) 6 members selected by the Secretary;  
20                   and

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

23           (2) QUALIFICATIONS.—The members of the Ad-  
24 visory Council shall—

25                   (A) have relevant scientific expertise; and

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

4 (i) the academic community;

5 (ii) the private research community;

6 (iii) National Laboratories;

7 (iv) the technology or project develop-  
8 ment community;

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

11 (vi) the electric generation sector, in-  
12 cluding at least one person who is knowl-  
13 edgeable of the electric cooperative sector.

14 (3) DUTIES.—

15 (A) ADVICE.—The Advisory Council shall  
16 provide advice to the Administration regarding  
17 the technological approaches that should be  
18 supported by the Administration to meet the  
19 goals developed by the Secretary under section  
20 102.

21 (B) METHODOLOGY FOR ASSESSMENT.—

22 The Advisory Council shall develop and publish  
23 for comment in the Federal Register a method-  
24 ology for the assessment of clean energy tech-  
25 nologies. Such methodology shall—

1 (i) allow the Administration to evalu-  
2 ate projects based on the progress likely to  
3 be achieved per-dollar invested in clean en-  
4 ergy technology; and

5 (ii) take into account the extent to  
6 which support for a clean energy tech-  
7 nology is likely to accrue benefits that are  
8 attributable to commercial-scale deploy-  
9 ment taking place earlier than that which  
10 otherwise would have occurred without the  
11 support.

12 (4) TERM.—

13 (A) IN GENERAL.—Members of the Advi-  
14 sory Council shall have 5-year staggered terms,  
15 as determined by the Secretary and the Admin-  
16 istrator.

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

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

1 during which the member is engaged in the perform-  
2 ance of the duties of the Advisory Council.

3 (e) STAFF.—

4 (1) IN GENERAL.—The Administrator, in con-  
5 sultation with the Board of Directors, may—

6 (A) appoint and terminate such officers,  
7 attorneys, employees, and agents as are nec-  
8 essary to carry out this subtitle; and

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

12 (2) DIRECT HIRE AUTHORITY.—

13 (A) IN GENERAL.—Notwithstanding sec-  
14 tion 3304 and sections 3309 through 3318 of  
15 title 5, United States Code, the Administrator  
16 may, on a determination that there is a severe  
17 shortage of candidates or a critical hiring need  
18 for particular positions, recruit and directly ap-  
19 point highly qualified critical personnel with  
20 specialized knowledge important to the function  
21 of the Administration into the competitive serv-  
22 ice.

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

1           tions in the excepted service or the Senior Exec-  
2           utive Service.

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

7                   (i) is consistent with the merit prin-  
8                   ciples of section 2301 of title 5, United  
9                   States Code; and

10                   (ii) complies with the public notice re-  
11                   quirements of section 3327 of title 5,  
12                   United States Code.

13           (D) TERMINATION OF EFFECTIVENESS.—  
14           The authority provided by this paragraph ter-  
15           minates effective on the date that is 3 years  
16           after the date of enactment of this Act.

17           (3) CRITICAL PAY AUTHORITY.—

18                   (A) IN GENERAL.—Notwithstanding sec-  
19                   tion 5377 of title 5, United States Code, and  
20                   without regard to the provisions of that title  
21                   governing appointments in the competitive serv-  
22                   ice or the Senior Executive Service and chap-  
23                   ters 51 and 53 of that title (relating to classi-  
24                   fication and pay rates), the Administrator may  
25                   establish, fix the compensation of, and appoint

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

4 (i) the positions require expertise of  
5 an extremely high level in a financial, tech-  
6 nical, or scientific field;

7 (ii) the Administration would not suc-  
8 cessfully accomplish an important mission  
9 without such an individual; and

10 (iii) exercise of the authority is nec-  
11 essary to recruit an individual who is ex-  
12 ceptionally well qualified for the position.

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

16 (i) The number of critical positions  
17 authorized by subparagraph (A) may not  
18 exceed 20 at any given time in the Admin-  
19 istration.

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

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

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

3           (iv) Total annual compensation for  
4           any individual appointed under subpara-  
5           graph (A) may not exceed the highest total  
6           annual compensation payable at the rate  
7           determined under section 104 of title 3,  
8           United States Code.

9           (v) An individual appointed under  
10          subparagraph (A) may not be considered  
11          to be an employee for purposes of sub-  
12          chapter II of chapter 75 of title 5, United  
13          States Code.

14          (C) NOTIFICATION.—Each year, the Ad-  
15          ministrator shall submit to Congress a notifica-  
16          tion that lists each individual appointed under  
17          this paragraph.

18 **SEC. 104. ADMINISTRATION FUNCTIONS.**

19          (a) DIRECT SUPPORT.—

20               (1) IN GENERAL.—The Administration may  
21               issue direct loans, letters of credit, loan guarantees,  
22               insurance products, or such other credit support (in-  
23               cluding through participation as a co-lender or a  
24               lending member of a syndication) as the Adminis-  
25               trator considers appropriate to deploy clean energy



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

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

7 (A) how the technology rates based on an  
8 evaluation methodology established by the Advi-  
9 sory Council;

10 (B) how the project fits with the goals de-  
11 veloped by the Secretary under section 102; and

12 (C) the potential for the applicant to suc-  
13 cessfully complete the project.

14 (3) RISK.—

15 (A) TECHNOLOGY RISK.—In this para-  
16 graph, the term “technology risk”—

17 (i) means risk during construction or  
18 operation associated with the design, devel-  
19 opment, or deployment of a clean energy  
20 technology from the perspective of com-  
21 mercial lenders, that may be increased as  
22 a result of the absence of adequate histor-  
23 ical construction, operating, or perform-  
24 ance data from commercial applications of  
25 the technology; and

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

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

9 (i) developing breakthrough tech-  
10 nologies to the point at which the associ-  
11 ated technology risk is largely mitigated;

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

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

17 (C) INITIAL EXPECTED LOAN LOSS RE-  
18 SERVE.—Until such time as the Administrator  
19 determines sufficient data exist to establish an  
20 expected loan loss reserve that is appropriate,  
21 the Administrator shall consider establishing an  
22 initial rate of 10 percent for the portfolio of in-  
23 vestments under this subtitle.

24 (D) PORTFOLIO INVESTMENT AP-  
25 PROACH.—The Administration shall—

1 (i) use a portfolio investment ap-  
2 proach to mitigate risk and diversify in-  
3 vestments across technologies;

4 (ii) to the maximum extent practicable  
5 and consistent with long-term self-suffi-  
6 ciency, weigh the portfolio of investments  
7 in projects to advance goals developed by  
8 the Secretary under section 102; and

9 (iii) consistent with the expected loan  
10 loss reserve established under this para-  
11 graph, provide the maximum practicable  
12 percentage of support to promote break-  
13 through technologies.

14 (E) LOSS RATE REVIEW.—

15 (i) IN GENERAL.—The Board of Di-  
16 rectors shall review on an annual basis the  
17 loss rates of the portfolio to determine the  
18 adequacy of the reserves.

19 (ii) REPORT.—Not later than 90 days  
20 after the date of the initiation of each re-  
21 view under clause (i), the Administrator  
22 shall submit to the Committee on Energy  
23 and Commerce of the House of Represent-  
24 atives and the Committee on Energy and  
25 Natural Resources of the Senate a report

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

3           (4) APPLICATION REVIEW.—

4           (A) IN GENERAL.—To the maximum ex-  
5           tent practicable and consistent with sound busi-  
6           ness practices, the Administration shall seek to  
7           consolidate reviews of applications for credit  
8           support under this subtitle such that final deci-  
9           sions on applications can be issued not later  
10          than 180 days after the date of submission of  
11          a completed application.

12          (B) ENVIRONMENTAL REVIEW.—In car-  
13          rying out this subtitle, the Administration shall,  
14          to the maximum extent practicable—

15                  (i) avoid duplicating efforts that have  
16                  already been undertaken by other agencies,  
17                  including State agencies acting under Fed-  
18                  eral programs; and

19                  (ii) with the advice of the Council on  
20                  Environmental Quality and any other ap-  
21                  plicable agencies, use the administrative  
22                  records of similar reviews conducted  
23                  throughout the executive branch to develop  
24                  the most expeditious review process prac-  
25                  ticable.

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

7           (b) INDIRECT SUPPORT.—

8           (1) IN GENERAL.—The Administration shall  
9           work to develop financial products and arrangements  
10          to promote widespread deployment of, and private  
11          sector support of, clean energy technologies by facili-  
12          tating aggregation of small projects and by pro-  
13          viding indirect credit support, including credit en-  
14          hancement.

15          (2) FINANCIAL PRODUCTS.—The Administra-  
16          tion—

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

24                 (B) may insure, purchase, and make com-  
25                 mitments to purchase, any debt instrument as-

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

7           (3) DISPOSITION OF DEBT OR INTEREST.—The  
8           Administration may acquire, hold, and sell or other-  
9           wise dispose of, pursuant to commitments or other-  
10          wise, any debt associated with the deployment of  
11          clean energy technologies or interest in the debt.

12          (4) PRICING.—

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

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

24                 (5) ELIGIBILITY.—The Administrator shall es-  
25                 tablish—

1 (A) eligibility criteria for loan originators,  
2 sellers, and servicers seeking support for port-  
3 folios of financial obligations relating to clean  
4 energy technologies to ensure the capability of  
5 the loan originators, sellers, and servicers to  
6 perform the functions required to maintain the  
7 expected performance of the portfolios; and

8 (B) such criteria, standards, guidelines,  
9 and mechanisms such that, to the maximum ex-  
10 tent practicable, loan originators and sellers will  
11 be able to determine the eligibility of loans for  
12 resale at the time of initial lending.

13 (6) SECONDARY MARKET SUPPORT.—

14 (A) IN GENERAL.—The Administration  
15 may lend on the security of, and make commit-  
16 ments to lend on the security of, any debt that  
17 the Administration has issued or is authorized  
18 to purchase under this section.

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

24 (i) give security or guarantee;

25 (ii) pay interest or other return; and

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

3 (7) LENDING ACTIVITIES.—

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

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

8 (ii) the types of loan ratios, risk pro-  
9 files, interest rates, maturities, and  
10 charges or fees in the secondary market  
11 operations of the Administration.

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

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

17 (ii) making the operations of the Ad-  
18 ministration self-supporting over the long  
19 term; and

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

22 **SEC. 105. IMPROVEMENTS TO EXISTING CLEAN ENERGY IN-**  
23 **VESTMENT PROGRAMS.**

24 (a) CLEAN ENERGY INVESTMENT FUND.—



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

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

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

10          (2) EXPENDITURES FROM FUND.—

11           (A) IN GENERAL.—Amounts in the Fund  
12 shall be available to the Secretary for obligation  
13 without fiscal year limitation, to remain avail-  
14 able until expended.

15           (B) ADMINISTRATIVE EXPENSES.—

16           (i) FEES.—Fees collected by the Sec-  
17 retary of the Treasury for expenses related  
18 to the administrative needs of the Fund  
19 shall be available without limitation to  
20 cover applicable expenses.

21           (ii) FUND.—To the extent that ad-  
22 ministrative expenses are not reimbursed  
23 through fees, an amount not to exceed 1.5  
24 percent of the amounts in the Fund as of  
25 the beginning of each fiscal year shall be

1 available to pay the administrative ex-  
2 penses for the fiscal year necessary to  
3 carry out title XVII of the Energy Policy  
4 Act of 2005 (42 U.S.C. 16511 et seq.).

5 (3) TRANSFERS OF AMOUNTS.—

6 (A) IN GENERAL.—The amounts required  
7 to be transferred to the Fund under this sub-  
8 section shall be transferred at least monthly  
9 from the general fund of the Treasury to the  
10 Fund on the basis of estimates made by the  
11 Secretary of the Treasury.

12 (B) CASH FLOWS.—Cash flows associated  
13 with costs of the Fund described in section  
14 502(5)(B) of the Federal Credit Reform Act of  
15 1990 (2 U.S.C. 661a(5)(B)) shall be trans-  
16 ferred to appropriate credit accounts.

17 (C) ADJUSTMENTS.—Proper adjustment  
18 shall be made in amounts subsequently trans-  
19 ferred to the extent prior estimates were in ex-  
20 cess of or less than the amounts required to be  
21 transferred.

22 (b) REVISIONS TO LOAN GUARANTEE PROGRAM AU-  
23 THORITY.—

24 (1) DEFINITION OF COMMERCIAL TECH-  
25 NOLOGY.—Section 1701(1) of the Energy Policy Act

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

3 “(B) EXCLUSION.—The term ‘commercial  
4 technology’ does not include a technology if the  
5 sole use of the technology is in connection  
6 with—

7 “(i) any demonstration project; or

8 “(ii) a project for which the Secretary  
9 approved a guarantee.”.

10 (2) SPECIFIC APPROPRIATION OR CONTRIBU-  
11 TION.—Section 1702 of the Energy Policy Act of  
12 2005 (42 U.S.C. 16512) is amended by striking sub-  
13 section (b) and inserting the following:

14 “(b) SPECIFIC APPROPRIATION OR CONTRIBU-  
15 TION.—

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

19 “(A) in unobligated balances within the  
20 Clean Energy Investment Fund established  
21 under section 105(a) of the Clean Energy Inno-  
22 vation and Deployment Act of 2020;

23 “(B) as a payment from the borrower and  
24 the payment is deposited in the Clean Energy  
25 Investment Fund; or

1           “(C) in any combination of balances and  
2           payments described in subparagraphs (A) and  
3           (B), respectively.

4           “(2) LIMITATION.—The source of payments re-  
5           ceived from a borrower under paragraph (1)(B) shall  
6           not be a loan or other debt obligation that is made  
7           or guaranteed by the Federal Government.

8           “(3) RELATION TO OTHER LAWS.—Section  
9           504(b) of the Federal Credit Reform Act of 1990 (2  
10          U.S.C. 661c(b)) shall not apply to a guarantee  
11          under this section.”.

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

16               “(B) SUPERIORITY OF RIGHTS.—Except as  
17               provided in subparagraph (C), the rights of the  
18               Secretary, with respect to any property ac-  
19               quired pursuant to a guarantee or related  
20               agreements, shall be superior to the rights of  
21               any other person with respect to the property.

22               “(C) TERMS AND CONDITIONS.—A guar-  
23               antee agreement shall include such detailed  
24               terms and conditions as the Secretary deter-  
25               mines appropriate to—

1 “(i) protect the interests of the United  
2 States in the case of default;

3 “(ii) have available all the patents and  
4 technology necessary for any person se-  
5 lected, including the Secretary, to complete  
6 and operate the project;

7 “(iii) provide for sharing the proceeds  
8 received from the sale of project assets  
9 with other creditors or control the disposi-  
10 tion of project assets if necessary to pro-  
11 tect the interests of the United States in  
12 the case of default; and

13 “(iv) provide such lien priority in  
14 project assets as necessary to protect the  
15 interests of the United States in the case  
16 of a default.”.

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

20 “(2) AVAILABILITY.—Fees collected under this  
21 subsection shall—

22 “(A) be deposited by the Secretary in the  
23 Clean Energy Investment Fund established  
24 under section 105(a) of Clean Energy Innova-  
25 tion and Deployment Act of 2020; and

1           “(B) remain available to the Secretary for  
2           expenditure, without further appropriation or  
3           fiscal year limitation, for administrative ex-  
4           penses incurred in carrying out this title.

5           “(3) ADJUSTMENT.—The Secretary may adjust  
6           the amount or manner of collection of fees under  
7           this subsection as the Secretary determines is nec-  
8           essary to deploy, to the maximum extent practicable,  
9           eligible projects under this title.

10          “(4) EXCESS FEES.—Of the amount of a fee  
11          imposed on an applicant at the conditional commit-  
12          ment stage, 75 percent of the amount shall be re-  
13          fundable to the applicant if there is no financial  
14          close on the application, unless the Secretary deter-  
15          mines that the administrative costs of the Depart-  
16          ment have exceeded the amount retained.

17          “(5) CREDIT REPORT.—If, in the opinion of the  
18          Secretary, the credit rating of an applicant is not  
19          relevant to the determination of whether or not sup-  
20          port will be provided and the applicant agrees to ac-  
21          cept the credit rating assigned to the applicant by  
22          the Secretary, the Secretary may waive any require-  
23          ment to provide a third-party credit report.”.

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

4           “(1) ACCELERATED REVIEWS.—To the maximum ex-  
5           tent practicable and consistent with sound business prac-  
6           tices, the Secretary shall seek to conduct necessary reviews  
7           concurrently of an application for a guarantee under this  
8           title such that decisions as to whether to enter into a com-  
9           mitment on the application can be issued not later than  
10          180 days after the date of submission of a completed ap-  
11          plication.”.

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

13          (a) TRANSFER OF FUNCTIONS AND AUTHORITY.—

14                  (1) IN GENERAL.—

15                          (A) DEADLINE.—Subject to paragraph (2),  
16                          on a finding by the Secretary and the Adminis-  
17                          trator that the Administration is sufficiently  
18                          ready to assume the functions, and that appli-  
19                          cants to those programs will not be unduly ad-  
20                          versely affected, but in no case later than 18  
21                          months after the date of enactment of this Act,  
22                          the functions and authority of the Secretary de-  
23                          scribed in subparagraph (B) shall be trans-  
24                          ferred to the Administration.

1 (B) FUNCTIONS AND AUTHORITY.—The  
2 functions and authority of the Secretary de-  
3 scribed in this subparagraph are functions and  
4 authority under—

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

8 (ii) section 2602(c) of the Energy Pol-  
9 icy Act of 1992 (25 U.S.C. 3502(c)); and

10 (iii) financial services and program  
11 management for grant, loan, and other  
12 credit enhancement programs authorized  
13 to be administered by the Secretary under  
14 any other provision of law, as the Sec-  
15 retary determines appropriate.

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



1           (3) EFFECT ON EXISTING RIGHTS AND OBLIGA-  
2           TIONS.—The transfer of functions and authority  
3           under this subsection shall not affect the rights and  
4           obligations of any party that arise under a prede-  
5           cessor program or authority prior to the transfer  
6           under this subsection.

7           (4) TRANSFER OF FUND AUTHORITY.—

8                 (A) IN GENERAL.—On transfer of func-  
9                 tions pursuant to paragraph (1), the Adminis-  
10                tration shall have all authorities to make use of  
11                the Fund reserved for the Secretary before the  
12                transfer.

13               (B) ADMINISTRATIVE EXPENSES.—Effec-  
14                tive beginning on the date of enactment of this  
15                Act, the Administrator may make use of up to  
16                1.5 percent of the amounts in the Fund as of  
17                the beginning of each fiscal year to pay admin-  
18                istrative expenses for that fiscal year to carry  
19                out this subtitle.

20           (5) USE.—

21                 (A) IN GENERAL.—Amounts in the Fund  
22                shall be available for discharge of liabilities and  
23                all other expenses of the Administration, includ-  
24                ing subsequent transfer to the respective credit  
25                accounts.

1           (B) LIABILITY.—All activities of the Ad-  
2           ministration that could result in a liability for  
3           the United States shall be transparently ac-  
4           counted for and no obligation or liability may  
5           be incurred unless—

6                   (i) the appropriate amounts are trans-  
7                   ferred to credit accounts for activities pur-  
8                   suant to the Federal Credit Reform Act of  
9                   1990 (2 U.S.C. 661a); or

10                   (ii) sufficient amounts are reserved  
11                   within the Fund to account for such liabil-  
12                   ities.

13           (6) INITIAL INVESTMENT.—

14           (A) IN GENERAL.—On transfer of func-  
15           tions pursuant to paragraph (1), out of any  
16           funds in the Treasury not otherwise appro-  
17           priated, the Secretary of the Treasury shall  
18           transfer to the Fund to carry out this subtitle  
19           \$10,000,000,000, to remain available until ex-  
20           pended.

21           (B) RECEIPT AND ACCEPTANCE.—The  
22           Fund shall be entitled to receive and shall ac-  
23           cept, and shall be used to carry out this sub-  
24           title, the funds transferred to the Fund under

1           subparagraph (A), without further appropria-  
2           tion.

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

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

12          (c) FEES.—

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

17           (2) AVAILABILITY OF FEES.—All fees collected  
18           by the Administration may be retained by the Ad-  
19           ministration and placed in the Fund and may re-  
20           main available to the Administration, without fur-  
21           ther appropriation or fiscal year limitation, for use  
22           in carrying out this subtitle.

23           (3) BREAKTHROUGH TECHNOLOGIES.—The Ad-  
24           ministration shall charge the minimum amount in  
25           fees or compensation practicable for breakthrough

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

5 (4) ALTERNATIVE FEE ARRANGEMENTS.—The  
6 Administration may use such alternative arrange-  
7 ments (such as profit participation, contingent fees,  
8 and other valuable contingent interests) as the Ad-  
9 ministration considers appropriate to compensate the  
10 Administration for the expenses of the Administra-  
11 tion and the risk inherent in the support of the Ad-  
12 ministration.

13 (d) COST TRANSFER AUTHORITY.—Amounts col-  
14 lected by the Administration for the cost of a loan or loan  
15 guarantee shall be transferred by the Administration to  
16 the respective credit program accounts.

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

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

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

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

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

6 (g) MAXIMUM OUTSTANDING HOLDING.—The Sec-  
7 retary of the Treasury shall purchase instruments issued  
8 under subsection (e) to the extent that the purchase would  
9 not increase the aggregate principal amount of the out-  
10 standing holdings of obligations under subsection (e) by  
11 the Secretary of the Treasury to an amount that is greater  
12 than \$2,000,000,000.

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

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

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

5 **SEC. 107. GENERAL PROVISIONS.**

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

8 (1) IN GENERAL.—All rights and remedies of  
9 the Administration (including any rights and rem-  
10 edies of the Administration on, under, or with re-  
11 spect to any mortgage or any obligation secured by  
12 a mortgage) shall be immune from impairment, limi-  
13 tation, or restriction by or under—

14 (A) any law (other than a law enacted by  
15 Congress expressly in limitation of this para-  
16 graph) that becomes effective after the acquisi-  
17 tion by the Administration of the subject or  
18 property on, under, or with respect to which the  
19 right or remedy arises or exists or would so  
20 arise or exist in the absence of the law; or

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

23 (2) STATE LAW.—The Administrator may con-  
24 duct the business of the Administration without re-

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

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

6             (1) use and act through any department, estab-  
7       lishment, or instrumentality; or

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

11      (c) PROCUREMENT.—The Administrator shall be the  
12      senior procurement officer for the Administration for pur-  
13      poses of section 1702 of title 41, United States Code.

14      (d) FINANCIAL MATTERS.—

15             (1) INVESTMENTS.—Funds of the Administra-  
16      tion may be invested in such investments as the  
17      Board of Directors may prescribe.

18             (2) FISCAL AGENTS.—Any Federal reserve  
19      bank or any bank for which, at the time of designa-  
20      tion by the Administrator there is outstanding a des-  
21      ignation by the Secretary of the Treasury as a gen-  
22      eral or other depository of public money, may be  
23      designated by the Administrator as a depository or  
24      custodian or as a fiscal or other agent of the Admin-  
25      istration.

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

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

7 (2) all civil actions to which the Administration  
8 is a party shall be considered to arise under the laws  
9 of the United States, and the district courts of the  
10 United States shall have original jurisdiction of all  
11 such actions, without regard to amount or value, ex-  
12 cept that the courts of appeals shall have jurisdic-  
13 tion over civil actions pertaining to section  
14 103(a)(3); and

15 (3) any civil or other action, case or controversy  
16 in a court of a State, or in any court other than a  
17 district court of the United States, to which the Ad-  
18 ministration is a party may at any time before trial  
19 be removed by the Administration, without the giv-  
20 ing of any bond or security and by following any  
21 procedure for removal of causes in effect at the time  
22 of the removal—

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



1 (B) if there is no such district court, to the  
2 district court of the United States for the dis-  
3 trict in which the principal office of the Admin-  
4 istration is located.

5 (f) PERIODIC REPORTS.—Not later than 1 year after  
6 commencement of operation of the Administration and at  
7 least biannually thereafter, the Administrator shall submit  
8 to the Committee on Energy and Commerce of the House  
9 of Representatives and the Committee on Energy and  
10 Natural Resources of the Senate a report that includes  
11 a description of—

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

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

17 (g) AUDITS BY THE COMPTROLLER GENERAL.—

18 (1) IN GENERAL.—The programs, activities, re-  
19 cepts, expenditures, and financial transactions of  
20 the Administration shall be subject to audit by the  
21 Comptroller General of the United States under  
22 such rules and regulations as may be prescribed by  
23 the Comptroller General.

24 (2) ACCESS.—The representatives of the Gov-  
25 ernment Accountability Office shall—

1 (A) have access to the personnel and to all  
2 books, accounts, documents, records (including  
3 electronic records), reports, files, and all other  
4 papers, automated data, things, or property be-  
5 longing to, under the control of, or in use by  
6 the Administration, or any agent, representa-  
7 tive, attorney, advisor, or consultant retained by  
8 the Administration, and necessary to facilitate  
9 the audit;

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

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

18 (D) have the right of access of the Comp-  
19 troller General to such information under sec-  
20 tion 716(e) of title 31, United States Code.

21 (3) ASSISTANCE AND COST.—

22 (A) IN GENERAL.—For the purpose of con-  
23 ducting an audit under this subsection, the  
24 Comptroller General may, in the discretion of  
25 the Comptroller General, employ by contract,

1 without regard to section 6101 of title 41,  
2 United States Code, professional services of  
3 firms and organizations of certified public ac-  
4 countants for temporary periods or for special  
5 purposes.

6 (B) REIMBURSEMENT.—

7 (i) IN GENERAL.—On the request of  
8 the Comptroller General, the Administra-  
9 tion shall reimburse the General Account-  
10 ability Office for the full cost of any audit  
11 conducted by the Comptroller General  
12 under this subsection.

13 (ii) CREDITING.—Such reimburse-  
14 ments shall—

15 (I) be credited to the appropria-  
16 tion account entitled “Salaries and  
17 Expenses, Government Accountability  
18 Office” at the time at which the pay-  
19 ment is received; and

20 (II) remain available until ex-  
21 pended.

22 (h) ANNUAL INDEPENDENT AUDITS.—

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

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

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

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

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

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

12                   (B) comply with any disclosure require-  
13           ments imposed under this subtitle.

14           (i) FINANCIAL REPORTS.—

15                   (1) IN GENERAL.—The Administrator shall  
16           submit to the Secretary annual and quarterly re-  
17           ports of the financial condition and operations of the  
18           Administration, which shall be in such form, contain  
19           such information, and be submitted on such dates as  
20           the Secretary shall require.

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

23                   (A) financial statements prepared in ac-  
24           cordance with generally accepted accounting  
25           principles;

1 (B) any supplemental information or alter-  
2 native presentation that the Secretary may re-  
3 quire; and

4 (C) an assessment (as of the end of the  
5 most recent fiscal year of the Administration),  
6 signed by the chief executive officer and chief  
7 accounting or financial officer of the Adminis-  
8 tration, of—

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

12 (ii) the compliance of the Administra-  
13 tion with applicable safety and soundness  
14 laws.

15 (3) SPECIAL REPORTS.—The Secretary may re-  
16 quire the Administrator to submit other reports on  
17 the condition (including financial condition), man-  
18 agement, activities, or operations of the Administra-  
19 tion, as the Secretary considers appropriate.

20 (4) ACCURACY.—Each report of financial condi-  
21 tion shall contain a declaration by the Administrator  
22 or any other officer designated by the Board of Di-  
23 rectors of the Administration to make the declara-  
24 tion, that the report is true and correct to the best  
25 of the knowledge and belief of the officer.

1           (5) AVAILABILITY OF REPORTS.—Reports re-  
2           quired under this section shall be published and  
3           made publicly available as soon as is practicable  
4           after receipt by the Secretary.

5           (j) SCOPE AND TERMINATION OF AUTHORITY.—

6           (1) NEW OBLIGATIONS.—The Administrator  
7           shall not initiate any new obligations under this sub-  
8           title on or after January 1, 2039.

9           (2) REVERSION TO SECRETARY.—The authori-  
10          ties and obligations of the Administration shall re-  
11          vert to the Secretary on January 1, 2039.

## 12                           **Subtitle B—Beneficial** 13                           **Electrification**

### 14   **SEC. 111. INNOVATION IN ELECTRIC VEHICLES THROUGH** 15                           **THE ADVANCED TECHNOLOGY MANUFAC-** 16                           **TURING INCENTIVE PROGRAM.**

17          (a) IN GENERAL.—

18           (1) IN GENERAL.—Section 136(c) of the En-  
19           ergy Independence and Security Act of 2007 (42  
20           U.S.C. 17013(c)) is amended by striking “December  
21           30, 2020” each place it appears and inserting “De-  
22           cember 31, 2030”.

23           (2) EFFECTIVE DATE.—The amendment made  
24           by paragraph (1) shall take effect on December 31,  
25           2020.

1 (b) AUTHORIZATION OF APPROPRIATIONS.—Section  
2 136(i) of the Energy Independence and Security Act of  
3 2007 (42 U.S.C. 17013(i)) is amended by striking “2008  
4 through 2012” and inserting “2021 through 2030”.

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

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

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

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

18 “(A) if such vehicle is sold during the tran-  
19 sition period, the amount determined under  
20 subsection (b)(2) shall be reduced by \$500, and

21 “(B) if such vehicle is sold during the  
22 phaseout period, only the applicable percentage  
23 of the credit otherwise allowable under sub-  
24 section (a) shall be allowed.

1           “(2) TRANSITION PERIOD.—For purposes of  
2 this subsection, the transition period subsequent to  
3 the first date on which the number of new qualified  
4 plug-in electric drive motor vehicles manufactured by  
5 the manufacturer of the vehicle referred to in para-  
6 graph (1) sold for use in the United States after De-  
7 cember 31, 2009, is at least 200,000.

8           “(3) PHASEOUT PERIOD.—

9           “(A) IN GENERAL.—For purposes of this  
10 subsection, the phaseout period is the period be-  
11 ginning with the second calendar quarter fol-  
12 lowing the calendar quarter which includes the  
13 first date on which the number of new qualified  
14 plug-in electric drive motor vehicles manufac-  
15 tured by the manufacturer of the vehicle re-  
16 ferred to in paragraph (1) sold for use in the  
17 United States after December 31, 2009, is at  
18 least 600,000.

19           “(B) APPLICABLE PERCENTAGE.—For  
20 purposes of paragraph (1)(B), the applicable  
21 percentage is—

22           “(i) 50 percent for the first calendar  
23 quarter of the phaseout period, and

24           “(ii) 0 percent for each calendar quar-  
25 ter thereafter.



1                   “(C) EXCLUSION OF SALE OF CERTAIN VE-  
2                   HICLES.—

3                   “(i) IN GENERAL.—For purposes of  
4                   subparagraph (A), any new qualified plug-  
5                   in electric drive motor vehicle manufac-  
6                   tured by the manufacturer of the vehicle  
7                   referred to in paragraph (1) which was  
8                   sold during the exclusion period shall not  
9                   be included for purposes of determining  
10                  the number of such vehicles sold.

11                  “(ii) EXCLUSION PERIOD.—For pur-  
12                  poses of this subparagraph, the exclusion  
13                  period is the period—

14                         “(I) beginning on the first date  
15                         on which the number of new qualified  
16                         plug-in electric drive motor vehicles  
17                         manufactured by the manufacturer of  
18                         the vehicle referred to in paragraph  
19                         (1) sold for use in the United States  
20                         after December 31, 2009, is at least  
21                         200,000, and

22                         “(II) ending on the date of the  
23                         enactment of the Clean Energy Inno-  
24                         vation and Deployment Act of 2020.

1           “(4) CONTROLLED GROUPS.—Rules similar to  
2           the rules of section 30B(f)(4) shall apply for pur-  
3           poses of this subsection.”.

4           (b) EXTENSION OF CREDIT FOR NEW QUALIFIED  
5 FUEL CELL MOTOR VEHICLES.—Section 30B(k)(1) of  
6 the Internal Revenue Code of 1986 is amended by striking  
7 “December 31, 2020” and inserting “December 31,  
8 2028”.

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

12 **SEC. 113. DEPLOYMENT OF ELECTRIC VEHICLE CHARGING**  
13 **INFRASTRUCTURE THROUGH SUPPLY EQUIP-**  
14 **MENT PROGRAMS.**

15           (a) ELECTRIC VEHICLE SUPPLY EQUIPMENT CO-  
16 ORDINATION.—Not later than 90 days after the date of  
17 enactment of this Act, the Secretary of Energy, acting  
18 through the Assistant Secretary of the Office of Elec-  
19 tricity, shall convene a group to assess progress in the de-  
20 velopment of standards necessary to—

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

23           (2) develop an electric vehicle charging network  
24           to provide reliable charging for electric vehicles na-  
25           tionwide; and

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

4           (b) UTILITY ELECTRIC VEHICLE CHARGING PRO-  
5 GRAMS.—

6           (1) CONSIDERATION AND DETERMINATION RE-  
7 SPECTING CERTAIN RATEMAKING STANDARDS.—Sec-  
8 tion 111(d) of the Public Utility Regulatory Policies  
9 Act of 1978 (16 U.S.C. 2621(d)) is amended by  
10 adding at the end the following:

11           “(20) UTILITY ELECTRIC VEHICLE CHARGING  
12 PROGRAMS.—

13           “(A) IN GENERAL.—Each State shall con-  
14 sider authorizing each electric utility of the  
15 State to establish rates sufficient to recover  
16 from ratepayers any capital, operating expendi-  
17 ture, or other costs of the electric utility relat-  
18 ing to the deployment of electric vehicle supply  
19 equipment designed to provide vehicle charging  
20 or load management.

21           “(B) DEFINITION.—For purposes of this  
22 paragraph, the term ‘electric vehicle supply  
23 equipment’ means the conductors, including the  
24 ungrounded, grounded, and equipment ground-  
25 ing conductors, the electric vehicle connectors,

1 attachment plugs, and all other fittings, devices,  
2 power outlets, or apparatuses installed specifi-  
3 cally for the purpose of delivering energy to an  
4 electric vehicle.”.

5 (2) OBLIGATIONS TO CONSIDER AND DETER-  
6 MINE.—

7 (A) TIME LIMITATIONS.—Section 112(b)  
8 of the Public Utility Regulatory Policies Act of  
9 1978 (16 U.S.C. 2622(b)) is amended by add-  
10 ing at the end the following:

11 “(7)(A) Not later than 1 year after the date of  
12 enactment of this paragraph, each State regulatory  
13 authority (with respect to each electric utility for  
14 which it has ratemaking authority) and each non-  
15 regulated electric utility shall commence the consid-  
16 eration referred to in section 111, or set a hearing  
17 date for consideration, with respect to the standard  
18 established by paragraph (20) of section 111(d).

19 “(B) Not later than 2 years after the date of  
20 the enactment of this paragraph, each State regu-  
21 latory authority (with respect to each electric utility  
22 for which it has ratemaking authority) and each  
23 nonregulated electric utility shall complete the con-  
24 sideration, and shall make the determination, re-

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

3               (B) FAILURE TO COMPLY.—Section 112(c)  
4       of the Public Utility Regulatory Policies Act of  
5       1978 (16 U.S.C. 2622(c)) is amended—

6               (i) by striking “subsection (b)(2)” and  
7       inserting “subsection (b)”; and

8               (ii) by striking “(19)” and inserting  
9       “(20)”.

10              (C) PRIOR STATE ACTIONS.—Section 112  
11       of the Public Utility Regulatory Policies Act of  
12       1978 (16 U.S.C. 2622) is amended by adding  
13       at the end the following:

14       “(g) PRIOR STATE ACTIONS.—Subsections (b) and  
15       (c) of this section shall not apply to the standard estab-  
16       lished by paragraph (20) of section 111(d) in the case of  
17       any electric utility in a State if, before the enactment of  
18       this subsection—

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

21              “(2) the State regulatory authority for such  
22       State or relevant nonregulated electric utility has  
23       conducted a proceeding to consider implementation  
24       of the standard concerned (or a comparable stand-  
25       ard) for such utility; or

1           “(3) the State legislature has voted on the im-  
2           plementation of such standard (or a comparable  
3           standard) for such utility.”.

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

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

9                   (A) integrating electric vehicle supply  
10                  equipment into residential and commercial  
11                  buildings that include space for individual vehi-  
12                  cle or fleet vehicle parking; and

13                   (B) integrating onsite renewable power  
14                  equipment and electric storage equipment (in-  
15                  cluding electric vehicle batteries to be used for  
16                  electric storage) in residential and commercial  
17                  buildings.

18           (2) CONSULTATION.—In developing the pro-  
19           posal under paragraph (1), the Secretary shall con-  
20           sult with stakeholders representing the building con-  
21           struction industry, manufacturers of electric vehicles  
22           and electric vehicle supply equipment, State and  
23           local governments, and any other persons with rel-  
24           evant expertise or interests.

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

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

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

12                 (1) in paragraph (1), by striking “January 1,  
13                 2020” and inserting “January 1, 2025”;

14                 (2) in paragraph (2), by striking “after Decem-  
15                 ber 31, 2019, and before January 1, 2021” and in-  
16                 serting “after December 31, 2024, and before Janu-  
17                 ary 1, 2026”; and

18                 (3) in paragraph (3), by striking “after Decem-  
19                 ber 31, 2020, and before January 1, 2022” and in-  
20                 serting “after December 31, 2025, and before Janu-  
21                 ary 1, 2027”.

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

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

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

6 (a) ENERGY EFFICIENT PUBLIC BUILDINGS.—Sec-  
7 tion 125(c) of the Energy Policy Act of 2005 (42 U.S.C.  
8 15822(c)) is amended by striking “\$30,000,000 for each  
9 of fiscal years 2006 through 2010” and inserting  
10 “\$100,000,000 for each of fiscal years 2022 through  
11 2026”.

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

14 (1) PURPOSE.—Section 542(b)(1) of the En-  
15 ergy Independence and Security Act of 2007 (42  
16 U.S.C. 17152(b)(1)) is amended—

17 (A) in subparagraph (A), by striking “;  
18 and” and inserting a semicolon;

19 (B) in subparagraph (B), by striking the  
20 semicolon and inserting “; and”; and

21 (C) by adding at the end the following:

22 “(C) diversifies energy supplies, including  
23 by facilitating and promoting the use of alter-  
24 native fuels;”.



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

4           “(9) deployment of energy distribution tech-  
5           nologies that significantly increase energy efficiency  
6           or expand access to alternative fuels, including—

7                   “(A) distributed resources;

8                   “(B) district heating and cooling systems;

9                   and

10                   “(C) infrastructure for delivering alter-  
11           native fuels;”.

12           (3) COMPETITIVE GRANTS.—Section 546(c)(2)  
13           of the Energy Independence and Security Act of  
14           2007 (42 U.S.C. 17156(c)(2)) is amended by insert-  
15           ing “, including projects to expand the use of alter-  
16           native fuels” before the period at the end.

17           (4) FUNDING.—Section 548(a) of the Energy  
18           Independence and Security Act of 2007 (42 U.S.C.  
19           17158(a)) is amended to read as follows:

20           “(a) AUTHORIZATION OF APPROPRIATIONS.—

21                   “(1) GRANTS.—There is authorized to be ap-  
22           propriated to the Secretary for the provision of  
23           grants under the program \$3,500,000,000 for each  
24           of fiscal years 2022 through 2026.

1           “(2) ADMINISTRATIVE COSTS.—There is au-  
2           thorized to be appropriated to the Secretary for ad-  
3           ministrative expenses of the program \$35,000,000  
4           for each of fiscal years 2022 through 2026.”.

5           (5) TECHNICAL AMENDMENTS.—Section 543 of  
6           the Energy Independence and Security Act of 2007  
7           (42 U.S.C. 17153) is amended—

8                   (A) in subsection (c), by striking “sub-  
9                   section (a)(2)” and inserting “subsection  
10                   (a)(3)”; and

11                   (B) in subsection (d), by striking “sub-  
12                   section (a)(3)” and inserting “subsection  
13                   (a)(4)”.

14           (c) SMART FEDERAL BUILDING PROGRAM.—

15                   (1) DEFINITIONS.—In this subsection:

16                           (A) SECRETARY.—The term “Secretary”  
17                           means the Secretary of Energy.

18                           (B) SMART BUILDING.—The term “smart  
19                           building” means a building, or collection of  
20                           buildings, with an energy system that—

21                                   (i) is flexible and automated;

22                                   (ii) has extensive operational moni-  
23                                   toring and communication connectivity, al-  
24                                   lowing remote monitoring and analysis of  
25                                   all building functions;

1 (iii) takes a systems-based approach  
2 in integrating the overall building oper-  
3 ations for control of energy generation,  
4 consumption, and storage;

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

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

10 (vi) is cybersecure.

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

16 (A) to implement smart building tech-  
17 nology; and

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

20 (3) SELECTION.—

21 (A) IN GENERAL.—The Secretary shall co-  
22 ordinate the selection of not fewer than 1 build-  
23 ing from among each of several key Federal  
24 agencies, as described in paragraph (5), to com-  
25 pose an appropriately diverse set of smart

1 buildings based on size, type, and geographic lo-  
2 cation.

3 (B) INCLUSION OF COMMERCIALY OPER-  
4 ATED BUILDINGS.—In making selections under  
5 subparagraph (A), the Secretary may include  
6 buildings that are owned by the Federal Gov-  
7 ernment but are commercially operated.

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

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

- 18 (A) the Department of the Army;  
19 (B) the Department of the Navy;  
20 (C) the Department of the Air Force;  
21 (D) the Department of Energy;  
22 (E) the Department of the Interior;  
23 (F) the Department of Veterans Affairs;  
24 and  
25 (G) the General Services Administration.

1           (6) REQUIREMENT.—In implementing the pro-  
2           gram established under paragraph (2), the Secretary  
3           shall leverage existing financing mechanisms includ-  
4           ing energy savings performance contracts, utility en-  
5           ergy service contracts, and annual appropriations.

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

12                   (A) which advanced building tech-  
13                   nologies—

14                           (i) are most cost-effective; and

15                           (ii) show the most promise for—

16                                   (I) increasing energy savings;

17                                   (II) increasing service perform-  
18                                   ance to building occupants;

19                                   (III) reducing environmental im-  
20                                   pacts; and

21                                   (IV) establishing cybersecurity;

22                                   and

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

1           (8) AWARDS.—The Secretary may expand  
2 awards made under the Federal Energy Manage-  
3 ment Program and the Better Building Challenge to  
4 recognize specific agency achievements in accel-  
5 erating the adoption of smart building technologies.

6           **Subtitle C—Zero-Emission**  
7 **Electricity Generation Technology**

8 **SEC. 121. DEPLOYMENT OF SOLAR AND WIND TECHNOLOGY**  
9 **THROUGH TAX CREDITS.**

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

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

14           (A) in paragraph (2)(A)(i)—

15           (i) in subclause (III), by striking  
16 “and” at the end; and

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

19           “(V) qualified offshore wind property,  
20 and”; and

21           (B) in paragraph (3)(A)—

22           (i) in clause (vi), by striking “or” at  
23 the end;

24           (ii) in clause (vii), by adding “or” at  
25 the end; and

1 (iii) by adding at the end the fol-  
2 lowing new clause:

3 “(viii) qualified offshore wind prop-  
4 erty, but only with respect to property the  
5 construction of which begins before Janu-  
6 ary 1, 2028,”.

7 (2) QUALIFIED OFFSHORE WIND PROPERTY.—  
8 Subsection (c) of section 48 of such Code is amend-  
9 ed by adding at the end the following new para-  
10 graph:

11 “(5) QUALIFIED OFFSHORE WIND PROPERTY.—

12 “(A) IN GENERAL.—The term ‘qualified  
13 offshore wind property’ means an offshore facil-  
14 ity using wind to produce electricity.

15 “(B) OFFSHORE FACILITY.—The term  
16 ‘offshore facility’ means any facility located in  
17 the inland navigable waters of the United  
18 States, including the Great Lakes, or in the  
19 coastal waters of the United States, including  
20 the territorial seas of the United States, the ex-  
21 clusive economic zone of the United States, and  
22 the outer Continental Shelf of the United  
23 States.

24 “(C) EXCEPTION FOR QUALIFIED SMALL  
25 WIND ENERGY PROPERTY.—The term ‘qualified

1 offshore wind property’ shall not include any  
2 property described in paragraph (4).

3 “(D) SPECIAL RULE.—In the case of any  
4 property described in subparagraph (A) which  
5 was placed in service after December 31, 2016,  
6 and for which a credit under this section was  
7 allowed by reason of subsection (a)(5) in any  
8 taxable year which ends before or includes the  
9 date of the enactment of the Clean Energy In-  
10 novation and Deployment Act of 2020, notwith-  
11 standing any election under such subsection  
12 (a)(5), such property may be treated at the  
13 election of the taxpayer as qualified offshore  
14 wind property (and not as qualified property  
15 which is part of a qualified investment credit  
16 facility) for—

17 “(i) taxable years beginning on or  
18 after such date of enactment, and

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

22 Notwithstanding section 6501, an amended re-  
23 turn may be filed for purposes of clause (ii) for  
24 any taxable year described in such clause.”.



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

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

6           (1) EXTENSION OF INVESTMENT TAX CRED-  
7 IT.—Section 48 of the Internal Revenue Code of  
8 1986 is amended—

9           (A) in subsection (a)—

10           (i) in paragraph (2)(A)(i)(II), by  
11 striking “January 1, 2022” and inserting  
12 “January 1, 2028”;

13           (ii) in paragraph (3)(A)—

14           (I) in clause (ii), by striking  
15 “January 1, 2022” and inserting  
16 “January 1, 2028”; and

17           (II) in clause (vii), by striking  
18 “January 1, 2022” and inserting  
19 “January 1, 2028”; and

20           (iii) in paragraph (5)(C)—

21           (I) in clause (i)—

22           (aa) by striking “(2), (3),  
23 (4), (6), (7),”; and

24           (bb) by inserting “and which  
25 is placed in service after 2008

1 and the construction of which be-  
2 gins before January 1, 2028”  
3 after “section 45(d)”; and

4 (II) in clause (ii), by inserting at  
5 the beginning of the clause “which is  
6 a qualified facility (within the mean-  
7 ing of section 45) described in para-  
8 graph (2), (3), (4), (6), and (7) and”;  
9 and

10 (B) in subsection (c)—

11 (i) in paragraph (1)(D), by striking  
12 “January 1, 2022” and inserting “Janu-  
13 ary 1, 2028”;

14 (ii) in paragraph (2)(D), by striking  
15 “January 1, 2022” and inserting “Janu-  
16 ary 1, 2028”;

17 (iii) in paragraph (3)(A)(iv), by strik-  
18 ing “January 1, 2022” and inserting  
19 “January 1, 2028”; and

20 (iv) in paragraph (4)(C), by striking  
21 “January 1, 2022” and inserting “Janu-  
22 ary 1, 2028”.

23 (2) CREDIT TRANSFERABILITY FOR SOLAR IN-  
24 VESTMENT TAX CREDIT.—Section 48 of such Code

1 is further amended by adding at the end the fol-  
2 lowing new subsections:

3 “(e) TRANSFERABILITY.—If a taxpayer elects to  
4 transfer all (or any portion specified in the election) of  
5 the credit determined under this section for an energy  
6 property described in subsection (a)(5) or (a)(6) for any  
7 taxable year to an eligible project partner for a specified  
8 period, then the eligible project partner specified in such  
9 election (and not the taxpayer) shall be treated for pur-  
10 poses of this title with respect to such credit (or such por-  
11 tion thereof) as the person entitled to such credit (or por-  
12 tion thereof).

13 “(f) ELIGIBLE PROJECT PARTNER.—

14 “(1) IN GENERAL.—For purposes of this para-  
15 graph, the term ‘eligible project partner’ means,  
16 with respect to any energy property described in  
17 subsection (a)(5) or (a)(6), any person who—

18 “(A) has an ownership interest in such en-  
19 ergy property,

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

22 “(C) provides electric transmission or dis-  
23 tribution services for such energy property,

24 “(D) purchases electricity from such en-  
25 ergy property pursuant to a contract, or

1           “(E) provides financing for such energy  
2           property.

3           “(2) SPECIAL RULE.—For purposes of para-  
4           graph (1)(E), any amount paid as consideration for  
5           a transfer described in subsection (e) shall not be  
6           treated as financing of a qualified facility.

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

14          “(h) LIMITATIONS ON ELECTION.—

15                 “(1) TIME FOR ELECTION.—An election under  
16                 subsection (e) to transfer any portion of the credit  
17                 allowed under this section shall be made not later  
18                 than the due date for the return of tax for the elect-  
19                 ing taxpayer’s taxable year with respect to which the  
20                 credit was determined.

21                 “(2) NO FURTHER TRANSFERS.—No election  
22                 may be made under subsection (e) by a taxpayer  
23                 with respect to any portion of the credit allowed  
24                 under this section which has been previously trans-  
25                 ferred to such taxpayer.

1           “(3) TREATMENT OF TRANSFER UNDER PRI-  
2       VATE USE RULES.—For purposes of section  
3       141(b)(1), any benefit derived by an eligible project  
4       partner in connection with an election under sub-  
5       section (e) shall not be taken into account as a pri-  
6       vate business use.

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

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

14           “(B) requiring information to be included  
15           in an election under subparagraph (A) or im-  
16           posing additional reporting requirements.

17      “(i) SPECIAL RULES.—

18           “(1) In the case of a taxpayer making an elec-  
19           tion under this section, the credit subject to such an  
20           election shall be determined notwithstanding—

21           “(A) section 50(b)(3); and

22           “(B) section 50(b)(4) for an entity de-  
23           scribed in 50(b)(4)(A)(i).

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

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

6 “(j) TERMINATION.—This section shall apply to tax-  
7 able years ending before January 1, 2050.”.

8 (3) PHASEOUTS.—

9 (A) SOLAR ENERGY PROPERTY.—Section  
10 48(a)(6) of such Code is amended—

11 (i) in subparagraph (A)—

12 (I) by striking “January 1, 2022,  
13 the energy percentage” and inserting  
14 “January 1, 2028, the energy per-  
15 centage”;

16 (II) in clause (i), by striking  
17 “after December 31, 2019, and before  
18 January 1, 2021” and inserting  
19 “after December 31, 2020, and before  
20 January 1, 2027”; and

21 (III) in clause (ii), by striking  
22 “after December 31, 2020, and before  
23 January 1, 2022” and inserting  
24 “after December 31, 2021, and before  
25 January 1, 2027”; and

1 (ii) in subparagraph (B), by striking  
2 “begins before January 1, 2022, and which  
3 is not placed in service before January 1,  
4 2024” and inserting “begins before Janu-  
5 ary 1, 2028, and which is not placed in  
6 service before January 1, 2030”.

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

11 (i) in subparagraph (A)—

12 (I) in clause (i), by striking  
13 “after December 31, 2019, and before  
14 January 1, 2021” and inserting  
15 “after December 31, 2020, and before  
16 January 1, 2027”; and

17 (II) in clause (ii), by striking  
18 “after December 31, 2020, and before  
19 January 1, 2022” and inserting  
20 “after December 31, 2021, and before  
21 January 1, 2027”; and

22 (ii) in subparagraph (B), by striking  
23 “January 1, 2024” and inserting “Janu-  
24 ary 1, 2030”.

25 (c) EXTENSION OF PRODUCTION TAX CREDIT.—

1           (1) WIND.—Section 45(d)(1) of the Internal  
2 Revenue Code of 1986 is amended by striking “Jan-  
3 uary 1, 2021” and inserting “January 1, 2028”.

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

9           (3) APPLICATION OF PHASEOUT PERCENT-  
10 AGE.—Section 45(b)(5)(D) of the Internal Revenue  
11 Code of 1986 is amended by striking “January 1,  
12 2021” and inserting “January 1, 2028”.

13           (4) TREATMENT AS ENERGY PROPERTY.—Sec-  
14 tion 48(a)(5)(E) of the Internal Revenue Code of  
15 1986 is amended by striking “January 1, 2021” and  
16 inserting “January 1, 2028”.

17           (5) CREDIT TRANSFERABILITY FOR WIND PRO-  
18 Duction TAX CREDIT.—Section 45 of the Internal  
19 Revenue Code of 1986 is amended by adding at the  
20 end the following:

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



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

6 “(g) ELIGIBLE PROJECT PARTNER.—

7 “(1) IN GENERAL.—For purposes of this sec-  
8 tion, the term ‘eligible project partner’ means, with  
9 respect to any qualified facility as defined in sub-  
10 section (d)(1), any person who—

11 “(A) has an ownership interest in such  
12 qualified facility,

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

15 “(C) provides electric transmission or dis-  
16 tribution services for such qualified facility,

17 “(D) purchases electricity from such quali-  
18 fied facility pursuant to a contract, or

19 “(E) provides financing for such qualified  
20 facility.

21 “(2) SPECIAL RULE.—For purposes of para-  
22 graph (1)(E), any amount paid as consideration for  
23 a transfer described in subsection (f) shall not be  
24 treated as financing of a qualified facility.

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

8       “(i) LIMITATIONS ON ELECTION.—

9           “(1) TIME FOR ELECTION.—An election under  
10 subsection (f) to transfer any portion of the credit  
11 allowed under this section shall be made not later  
12 than the due date for the return of tax for the elect-  
13 ing taxpayer’s taxable year with respect to which the  
14 credit was determined.

15           “(2) NO FURTHER TRANSFERS.—No election  
16 may be made under subsection (f) by a taxpayer  
17 with respect to any portion of the credit allowed  
18 under this section which has been previously trans-  
19 ferred to such taxpayer under this paragraph.

20           “(3) TREATMENT OF TRANSFER UNDER PRI-  
21 VATE USE RULES.—For purposes of section  
22 141(b)(1), any benefit derived by an eligible project  
23 partner in connection with an election under this  
24 section shall not be taken into account as a private  
25 business use.

1           “(4) ADDITIONAL ELECTION REQUIREMENTS.—

2           The Secretary may prescribe such regulations as  
3           may be appropriate to carry out the purposes of this  
4           section, including—

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

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

11          “(j) TERMINATION.—This section shall apply to tax-  
12          able years ending before January 1, 2050.”.

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

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

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

20   **“SEC. 6431. ELECTIVE PAYMENT FOR ENERGY PROPERTY**  
21                   **AND ELECTRICITY PRODUCED FROM CER-**  
22                   **TAIN RENEWABLE RESOURCES, ETC.**

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

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

3 “(1) any portion of an energy credit which  
4 would (without regard to this section) be determined  
5 under section 48 with respect to property originally  
6 placed in service after December 31, 2019 and be-  
7 fore January 1, 2025,

8 “(2) any portion of a renewable electricity pro-  
9 duction credit which would (without regard to this  
10 section) be determined under section 45 with respect  
11 to property originally placed in service after Decem-  
12 ber 31, 2019 and before January 1, 2025, or

13 “(3) any portion of a credit carryforward to the  
14 extent attributable to section 48 or section 45 that  
15 is allowed under section 38(a)(1) (determined with-  
16 out regard to section 38(c)) for taxable years ending  
17 after December 31, 2019 and before January 1,  
18 2025,

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

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

1       “(c) EXCLUSION FROM GROSS INCOME.—Gross in-  
2 come of the taxpayer shall be determined without regard  
3 to this section.

4       “(d) DENIAL OF DOUBLE BENEFIT.—Solely for pur-  
5 poses of section 38, in the case of a taxpayer making an  
6 election under this section, the energy credit determined  
7 under section 48 or the renewable electricity production  
8 credit determined under section 45 shall be reduced by  
9 the amount of the portion of such credit with respect to  
10 which the taxpayer makes such election.

11       “(e) SPECIAL RULES.—

12               “(1) In the case of a taxpayer making an elec-  
13 tion under this section, the credit subject to such an  
14 election shall be determined notwithstanding—

15                       “(A) section 50(b)(3); and

16                       “(B) section 50(b)(4) for an entity de-  
17 scribed in 50(b)(4)(A)(i).

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

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

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

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

7 **SEC. 123. INNOVATION IN ENERGY STORAGE THROUGH RE-**  
8 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**  
9 **TION.**

10 (a) IN GENERAL.—The United States Energy Stor-  
11 age Competitiveness Act of 2007 (42 U.S.C. 17231) is  
12 amended—

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

15 (2) by inserting after subsection (k) the fol-  
16 lowing:

17 “(l) GRID-SCALE ENERGY STORAGE SYSTEM RE-  
18 SEARCH, DEVELOPMENT, AND DEMONSTRATION PRO-  
19 GRAM.—

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

21 “(A) ENERGY STORAGE SYSTEM.—The  
22 term ‘energy storage system’ means a system,  
23 equipment, facility, or technology that—

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

4           “(ii)(I) uses a mechanical, electrical,  
5           chemical, electrochemical, or thermal pro-  
6           cess to store energy that—

7                   “(aa) was generated at an earlier  
8                   time for use at a later time; or

9                   “(bb) was generated from a me-  
10                  chanical process, and would otherwise  
11                  be wasted, for delivery at a later time;  
12                  or

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

19                  “(B) PROGRAM.—The term ‘program’  
20                  means the research, development, and dem-  
21                  onstration program established under para-  
22                  graph (2)(A).

23                  “(2) ESTABLISHMENT.—

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

1 the Secretary shall establish within the Office of  
2 Electricity of the Department of Energy a re-  
3 search, development, and demonstration pro-  
4 gram of grid-scale energy storage systems, in  
5 accordance with this subsection.

6 “(B) GOALS, PRIORITIES, COST TAR-  
7 GETS.—Not later than 180 days after the date  
8 of enactment of this Act, The Secretary shall  
9 develop goals, priorities, and cost targets for  
10 the program.

11 “(3) STRATEGIC PLAN.—

12 “(A) IN GENERAL.—Not later than 180  
13 days after the date of enactment of this Act,  
14 the Secretary shall submit to the Committee on  
15 Energy and Natural Resources of the Senate  
16 and the Committee on Science, Space, and  
17 Technology of the House of Representatives a  
18 10-year strategic plan for the program.

19 “(B) CONTENTS.—The strategic plan sub-  
20 mitted under subparagraph (A) shall—

21 “(i) identify Department of Energy  
22 programs that support—

23 “(I) the research and develop-  
24 ment activities described in paragraph



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

3 “(II) activities or projects not de-  
4 scribed in subclause (I) that are im-  
5 portant to the development of grid-  
6 scale energy storage systems and the  
7 mission of the Office of Electricity of  
8 the Department of Energy, as deter-  
9 mined by the Secretary; and

10 “(ii) include expected timelines for—

11 “(I) the accomplishment of rel-  
12 evant objectives under current pro-  
13 grams of the Department of Energy  
14 relating to grid-scale energy storage  
15 systems; and

16 “(II) the commencement of any  
17 new initiatives within the Department  
18 of Energy relating to grid-scale energy  
19 storage systems to accomplish those  
20 objectives.

21 “(C) UPDATES TO PLAN.—Not less fre-  
22 quently than once every 2 years, the Secretary  
23 shall submit to the Committee on Energy and  
24 Natural Resources of the Senate and the Com-  
25 mittee on Science, Space, and Technology of

1 the House of Representatives an updated stra-  
2 tegic plan for the same 10-year period as the  
3 plan under subparagraph (A), which shall iden-  
4 tify, and provide a justification for, any major  
5 deviation from a previous strategic plan sub-  
6 mitted under this paragraph.

7 “(4) RESEARCH AND DEVELOPMENT.—In car-  
8 rying out the program, the Secretary shall focus re-  
9 search and development activities on developing cost-  
10 effective energy storage systems that—

11 “(A)(i) to balance day-scale needs, are ca-  
12 pable of highly flexible power output for not  
13 less than 6 hours; and

14 “(ii) have a lifetime of—

15 “(I) not less than 8,000 cycles of dis-  
16 charge at full output; and

17 “(II) 20 years of useful-life operation;

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

21 “(ii) have a lifetime of—

22 “(I) not less than 1,500 cycles of dis-  
23 charge at full output; and

24 “(II) 20 years of operation; and

1           “(C) can store energy over several months  
2           and address seasonal scale variations in supply  
3           and demand.

4           “(5) COST TARGETS.—

5           “(A) IN GENERAL.—Cost targets developed  
6           by the Secretary under paragraph (2)(B)  
7           shall—

8                   “(i) be for energy storage costs across  
9                   all types of energy storage technology; and

10                   “(ii) include technology costs, installa-  
11                   tion costs, balance of services costs, and  
12                   soft costs.

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

17                   “(i) revise the cost targets developed  
18                   under paragraph (2)(B) based on—

19                           “(I) a technology-neutral ap-  
20                           proach that considers all types of en-  
21                           ergy storage deployment scenarios, in-  
22                           cluding individual technologies, tech-  
23                           nology combination use profiles, and  
24                           integrated control system applications;

1                   “(II) input from a variety of  
2                   stakeholders;

3                   “(III) the inclusion and use of  
4                   existing infrastructure; and

5                   “(IV) the ability to optimize the  
6                   integration of intermittent renewable  
7                   energy generation technology and dis-  
8                   tributed energy resources; and

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

13                   “(I) electricity market prices; and

14                   “(II) the goal of being cost-com-  
15                  petitive in specific markets for electric  
16                  grid products and services.

17                  “(6) DEMONSTRATION PROJECTS.—

18                   “(A) IN GENERAL.—Not later than Sep-  
19                  tember 30, 2023, under the program, the Sec-  
20                  retary shall, to the maximum extent practicable,  
21                  enter into agreements to carry out not more  
22                  than 5 grid-scale energy storage system dem-  
23                  onstration projects, including at least one in  
24                  which an electric cooperative is a participant  
25                  and at least one in which a retail electricity

1 supplier that is a State, or any political subdivi-  
2 sion of a State is a participant.

3 “(B) OBJECTIVE.—Each demonstration  
4 project carried out under subparagraph (A)  
5 shall be designed to further the development of  
6 the energy storage systems described in para-  
7 graph (4).

8 “(C) NO OWNERSHIP INTEREST.—The  
9 Federal Government shall not hold any equity  
10 or other ownership interest in any grid-scale en-  
11 ergy storage system that is part of a dem-  
12 onstration project under this paragraph.

13 “(7) TESTING AND VALIDATION.—The Sec-  
14 retary shall accelerate the standardized testing and  
15 validation of grid-scale energy storage systems under  
16 the program through collaboration with one or more  
17 National Laboratories (as defined in section 2 of the  
18 Energy Policy Act of 2005 (42 U.S.C. 15801)), in-  
19 cluding by developing testing and evaluation meth-  
20 odologies for—

21 “(A) standardized grid performance testing  
22 for energy storage systems, materials, and tech-  
23 nologies during each stage of development, be-  
24 ginning with the research stage and ending with  
25 the deployment stage, including performance

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

6 “(B) accelerated life testing protocols to  
7 predict estimated lifetime metrics with accu-  
8 racy.

9 “(8) COORDINATION.—To accelerate the devel-  
10 opment of grid-scale energy storage systems under  
11 the program the Secretary shall coordinate with—

12 “(A) offices within the Department of En-  
13 ergy conducting energy storage research, such  
14 as the Advanced Research Projects Agency–En-  
15 ergy, the Office of Science, and the Office of  
16 Energy Efficiency and Renewable Energy;

17 “(B) Federal agencies that are carrying  
18 out initiatives to increase energy security or re-  
19 liability, such as the Department of Defense,  
20 the National Science Foundation, the Federal  
21 Energy Regulatory Commission, and the De-  
22 partment of Homeland Security;

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

1 Department of Energy and the National Insti-  
2 tute of Standards and Technology in the De-  
3 partment of Commerce; and

4 “(D) members of private industry to ad-  
5 vance the development of commercially viable  
6 grid-scale energy storage systems.”.

7 (b) AUTHORIZATION OF APPROPRIATIONS.—The  
8 United States Energy Storage Competitiveness Act of  
9 2007 (42 U.S.C. 17231) is amended, in subsection (q) (as  
10 redesignated by subsection (a)(1))—

11 (1) in paragraph (5), by striking “and” at the  
12 end;

13 (2) in paragraph (6), by striking the period at  
14 the end and inserting “; and”; and

15 (3) by adding at the end the following:

16 “(7) the research, development, and demonstra-  
17 tion program of grid-scale energy storage systems  
18 under subsection (l) \$60,000,000 for each of fiscal  
19 years 2021 through 2024.”.

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

22 (a) ENERGY CREDIT FOR ENERGY STORAGE TECH-  
23 NOLOGIES.—

24 (1) IN GENERAL.—Subclause (II) of section  
25 48(a)(2)(A)(i) of the Internal Revenue Code of 1986

1 is amended by striking “paragraph (3)(A)(i)” and  
2 inserting “clause (i) or (ix) of paragraph (3)(A)”.

3 (2) ENERGY STORAGE TECHNOLOGIES.—Sub-  
4 paragraph (A) of section 48(a)(3) of the Internal  
5 Revenue Code of 1986, as amended by section 121,  
6 is amended by striking “or” at the end of clause  
7 (vii), by adding “or” at the end of clause (viii), and  
8 by adding at the end the following new clause:

9 “(ix) equipment which receives, stores,  
10 and delivers energy using batteries, com-  
11 pressed air, pumped hydropower, hydrogen  
12 storage (including hydrolysis), thermal en-  
13 ergy storage, regenerative fuel cells,  
14 flywheels, capacitors, superconducting  
15 magnets, or other technologies identified  
16 by the Secretary in consultation with the  
17 Secretary of Energy, and which has a ca-  
18 pacity of not less than 5 kilowatt hours,”.

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

22 (A) by striking “ENERGY” in the heading  
23 and inserting “AND ENERGY STORAGE”; and



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

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

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

9 (1) IN GENERAL.—Subsection (a) of section  
10 25D of the Internal Revenue Code of 1986 is  
11 amended by striking “and” at the end of paragraph  
12 (4), by inserting “and” after the comma at the end  
13 of paragraph (5), and by inserting after paragraph  
14 (5) the following new paragraph:

15 “(6) the qualified battery storage technology ex-  
16 penditures,”.

17 (2) QUALIFIED BATTERY STORAGE TECH-  
18 NOLOGY EXPENDITURE.—Subsection (d) of section  
19 25D of the Internal Revenue Code of 1986 is  
20 amended by adding at the end the following new  
21 paragraph:

22 “(6) QUALIFIED BATTERY STORAGE TECH-  
23 NOLOGY EXPENDITURE.—The term ‘qualified bat-  
24 tery storage technology expenditure’ means an ex-  
25 penditure for battery storage technology which—

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

4           “(B) has a capacity of not less than 3 kilo-  
5           watt hours.”.

6           (3) EFFECTIVE DATE.—The amendments made  
7           by this subsection shall apply to expenditures paid  
8           or incurred in taxable years beginning after Decem-  
9           ber 31, 2018.

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

11           Paragraph (2) of section 50(d) of the Internal Rev-  
12           enue Code of 1986 is amended by adding after the first  
13           sentence the following: “At the election of a taxpayer, this  
14           paragraph shall not apply to energy property described in  
15           clause (i) or (ix) of section 48(a)(3)(A) that is placed in  
16           service by the taxpayer after December 31, 2019, pro-  
17           vided—

18           “(A) no election under this paragraph shall  
19           be permitted if the making of such election is  
20           prohibited by, or required by, a State or polit-  
21           ical subdivision thereof, by any agency or in-  
22           strumentality of the United States, or by a pub-  
23           lic service or public utility commission or other  
24           similar body of any State or political subdivi-

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

3 “(B) an election under this paragraph  
4 shall be made separately with respect to each  
5 energy property by the due date (including ex-  
6 tensions) of the Federal tax return for the tax-  
7 able year in which such property is placed in  
8 service by the taxpayer, and once made, may be  
9 revoked only with the consent of the Sec-  
10 retary.”.

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

13 Section 45Q(d)(1) of the Internal Revenue Code of  
14 1986 is amended by striking “January 1, 2024” and in-  
15 serting “December 31, 2029”.

16 **SEC. 127. INNOVATION IN ADVANCED NUCLEAR TECH-**  
17 **NOLOGY THROUGH DEMONSTRATION.**

18 (a) FINDINGS.—Congress finds that—

19 (1) the national security nuclear enterprise,  
20 which supports the nuclear weapons stockpile stew-  
21 ardship and naval reactors functions of the National  
22 Nuclear Security Administration, requires a domes-  
23 tic source of low- and high-enriched uranium due to  
24 legal restrictions regarding foreign obligations relat-  
25 ing to the beginning stage of the nuclear fuel cycle;

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

4                   (A) operation of demonstration reactors;

5           and

6                   (B) initial fuel testing;

7                   (C) commercial operation of advanced nu-  
8           clear reactors;

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

13          (4) a healthy commercial nuclear fuel cycle ca-  
14          pable of providing higher levels of enriched uranium  
15          would benefit—

16                   (A) the relevant national security functions  
17                   of the National Nuclear Security Administra-  
18                   tion; and

19                   (B) the domestic advanced nuclear indus-  
20                   try of the United States; and

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

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

2 and

3 (B) the development of—

4 (i) a market for advanced nuclear re-  
5 actors; and

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

8 (b) NUCLEAR REACTOR DEMONSTRATION  
9 PROJECT.—

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

13 **“SEC. 959A. ADVANCED NUCLEAR REACTOR RESEARCH  
14 AND DEVELOPMENT GOALS.**

15 **“(a) DEFINITIONS.—**In this section:

16 **“(1) ADVANCED NUCLEAR REACTOR.—**The  
17 term ‘advanced nuclear reactor’ means—

18 **“(A) a nuclear fission reactor, including a  
19 prototype plant (as defined in sections 50.2 and  
20 52.1 of title 10, Code of Federal Regulations  
21 (or successor regulations)), with significant im-  
22 provements compared to the most recent gen-  
23 eration of fission reactors, including improve-  
24 ments such as—**

- 1           “(i) additional inherent safety fea-  
2           tures;  
3           “(ii) lower waste yields;  
4           “(iii) improved fuel performance;  
5           “(iv) increased tolerance to loss of  
6           fuel cooling;  
7           “(v) enhanced reliability;  
8           “(vi) increased proliferation resist-  
9           ance;  
10           “(vii) increased thermal efficiency;  
11           “(viii) reduced consumption of cooling  
12           water;  
13           “(ix) the ability to integrate into elec-  
14           tric applications and nonelectric applica-  
15           tions;  
16           “(x) modular sizes to allow for deploy-  
17           ment that corresponds with the demand  
18           for electricity; and  
19           “(xi) operational flexibility to respond  
20           to changes in demand for electricity and to  
21           complement integration with intermittent  
22           renewable energy; or  
23           “(B) a nuclear fusion reactor.

1           “(2) DEMONSTRATION PROJECT.—The term  
2           ‘demonstration project’ means an advanced nuclear  
3           reactor operated—

4                   “(A) as part of the power generation facili-  
5                   ties of an electric utility system; or

6                   “(B) in any other manner for the purpose  
7                   of demonstrating the suitability for commercial  
8                   application of the advanced nuclear reactor for  
9                   the generation of electricity or other useful en-  
10                  ergy output.

11          “(b) PURPOSE.—The purpose of this section is to di-  
12          rect the Secretary, as soon as practicable after the date  
13          of enactment of this section, to advance the research and  
14          development of domestic advanced, affordable, and clean  
15          nuclear energy by—

16                 “(1) demonstrating different advanced nuclear  
17                 reactor technologies that could be used by the elec-  
18                 tric power sector to produce—

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

21                         “(B) heat for community heating, indus-  
22                         trial purposes, or synthetic fuel production;

23                         “(C) remote or off-grid energy supply; or

24                         “(D) backup or mission-critical power sup-  
25                         plies;

1           “(2) developing subgoals for nuclear energy re-  
2           search programs that would accomplish the goals of  
3           the demonstration projects carried out under sub-  
4           section (c);

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

9           “(4) facilitating the access of the electric power  
10          sector—

11                 “(A) to Federal research facilities and per-  
12                 sonnel; and

13                 “(B) to the results of research relating to  
14                 civil nuclear technology funded by the Federal  
15                 Government.

16          “(c) DEMONSTRATION PROJECTS.—

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

19                         “(A) complete not fewer than two ad-  
20                         vanced nuclear reactor demonstration projects  
21                         by not later than December 31, 2030; and

22                         “(B) establish a program to demonstrate  
23                         not fewer than two, and not more than five, ad-  
24                         ditional operational advanced reactor designs by  
25                         not later than December 31, 2035.



1           “(2) REQUIREMENTS.—In carrying out dem-  
2           onstration projects under paragraph (1), the Sec-  
3           retary shall—

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

7                           “(i) primary coolants;

8                           “(ii) fuel types and compositions; and

9                           “(iii) neutron spectra;

10                   “(B) seek to ensure that—

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

16                           “(ii) the selected projects can meet  
17                           the deadline established in paragraph (1)  
18                           to demonstrate first-of-a-kind advanced  
19                           nuclear reactor technologies, for which ad-  
20                           ditional information shall be considered, in-  
21                           cluding—

22                                   “(I) the readiness level of a pro-  
23                                   posed advanced nuclear reactor tech-  
24                                   nology;

1                   “(II) the technical abilities and  
2                   qualifications of teams desiring to  
3                   partner with the Department to dem-  
4                   onstrate a proposed advanced nuclear  
5                   reactor technology; and

6                   “(III) the capacity to meet cost-  
7                   share requirements of the Depart-  
8                   ment;

9                   “(C) ensure that each evaluation of can-  
10                  didate technologies for the demonstration  
11                  projects is completed through an external re-  
12                  view of proposed designs, which review shall—

13                  “(i) be conducted by a panel that in-  
14                  cludes not fewer than 1 representative of  
15                  each of—

16                                  “(I) an electric utility; and

17                                  “(II) an entity that uses high-  
18                                  temperature process heat for manu-  
19                                  facturing or industrial processing,  
20                                  such as a petrochemical company, a  
21                                  manufacturer of metals, or a manu-  
22                                  facturer of concrete; and

23                                  “(ii) include a review of cost-competi-  
24                                  tiveness and other value streams, together  
25                                  with the technology readiness level, of each

1 design to be demonstrated under this sub-  
2 section;

3 “(D) enter into cost-sharing agreements  
4 with partners in accordance with section 988  
5 for the conduct of activities relating to the re-  
6 search, development, and demonstration of pri-  
7 vate-sector advanced nuclear reactor designs  
8 under the program;

9 “(E) work with electric power sector part-  
10 ners to identify potential sites, including De-  
11 partment-owned sites, for demonstrations, as  
12 appropriate; and

13 “(F) align specific activities carried out  
14 under demonstration projects carried out under  
15 this subsection with priorities identified through  
16 direct consultations between—

17 “(i) the Department;

18 “(ii) National Laboratories;

19 “(iii) institutions of higher education;

20 “(iv) traditional end-users (such as  
21 electric utilities);

22 “(v) potential end-users of new tech-  
23 nologies (such as users of high-tempera-  
24 ture process heat for manufacturing proc-  
25 essing, including petrochemical companies,

1 manufacturers of metals, or manufacturers  
2 of concrete); and

3 “(vi) developers of advanced nuclear  
4 reactor technology.

5 “(3) ADDITIONAL REQUIREMENTS.—In car-  
6 rying out demonstration projects under paragraph  
7 (1), the Secretary shall—

8 “(A) identify candidate technologies that—

9 “(i) are not developed sufficiently for  
10 demonstration within the initial required  
11 timeframe described in paragraph (1)(A);  
12 but

13 “(ii) could be demonstrated within the  
14 timeframe described in paragraph (1)(B);

15 “(B) identify technical challenges to the  
16 candidate technologies identified in subpara-  
17 graph (A);

18 “(C) support near-term research and devel-  
19 opment to address the highest-risk technical  
20 challenges to the successful demonstration of a  
21 selected advanced reactor technology, in accord-  
22 ance with—

23 “(i) subparagraph (B); and

24 “(ii) the research and development ac-  
25 tivities under section 958; and

1           “(D) establish such technology advisory  
2           working groups as the Secretary determines to  
3           be appropriate to advise the Secretary regard-  
4           ing the technical challenges identified under  
5           subparagraph (B) and the scope of research  
6           and development programs to address the chal-  
7           lenges, in accordance with subparagraph (C), to  
8           be comprised of—

9                   “(i) private-sector advanced nuclear  
10                  reactor technology developers;

11                   “(ii) technical experts with respect to  
12                  the relevant technologies at institutions of  
13                  higher education; and

14                   “(iii) technical experts at the National  
15                  Laboratories.

16           “(d) GOALS.—

17                   “(1) IN GENERAL.—The Secretary shall estab-  
18                  lish goals for research relating to advanced nuclear  
19                  reactors facilitated by the Department that support  
20                  the objectives of the program for demonstration  
21                  projects established under subsection (c).

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

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

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

6 “(A) research activities facilitated by the  
7 Department to meet the goals developed under  
8 this subsection are focused on key areas of nu-  
9 clear research and deployment ranging from  
10 basic science to full-design development, safety  
11 evaluation, and licensing;

12 “(B) research programs designed to meet  
13 the goals emphasize—

14 “(i) resolving materials challenges re-  
15 lating to extreme environments, including  
16 extremely high levels of—

17 “(I) radiation fluence;

18 “(II) temperature;

19 “(III) pressure; and

20 “(IV) corrosion; and

21 “(ii) qualification of advanced fuels;

22 “(C) activities are carried out that address  
23 near-term challenges in modeling and simula-  
24 tion to enable accelerated design and licensing;

1           “(D) related technologies, such as tech-  
2 nologies to manage, reduce, or reuse nuclear  
3 waste, are developed;

4           “(E) nuclear research infrastructure is  
5 maintained or constructed, such as—

6                   “(i) currently operational research re-  
7 actors at the National Laboratories and in-  
8 stitutions of higher education;

9                   “(ii) hot cell research facilities;

10                   “(iii) a versatile fast neutron source;

11                   and

12                   “(iv) a molten salt testing facility;

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

15           “(G) advanced sensors and control systems  
16 are developed; and

17           “(H) advanced manufacturing and ad-  
18 vanced construction techniques and materials  
19 are investigated to reduce the cost of advanced  
20 nuclear reactors.

21           “(e) AUTHORIZATION OF APPROPRIATIONS.—There  
22 is authorized to be appropriated to carry out this section  
23 \$300,000,000 for each of fiscal years 2021 through  
24 2035.”.





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

3 “(A) the Secretary of Defense; and

4 “(B) the Secretary of Homeland Security;

5 and

6 “(2) not later than December 31, 2023, enter  
7 into at least 1 agreement to purchase power from a  
8 commercial nuclear reactor that receives the first li-  
9 cense for that reactor from the Nuclear Regulatory  
10 Commission after January 1, 2021.

11 “(c) FACTORS FOR CONSIDERATION.—

12 “(1) IN GENERAL.—In carrying out this sec-  
13 tion, the Secretary shall give special consideration to  
14 power purchase agreements for first-of-a-kind or  
15 early deployment nuclear technologies that can pro-  
16 vide reliable and resilient power to high-value assets  
17 for national security purposes or other purposes as  
18 the Secretary determines to be in the national inter-  
19 est, especially in remote off-grid scenarios or grid-  
20 connected scenarios that can provide capabilities  
21 commonly known as ‘islanding power capabilities’  
22 during an emergency scenario.

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

1 agreement fulfills an applicable consideration de-  
2 scribed in paragraph (1).”.

3 (2) TABLE OF CONTENTS.—The table of con-  
4 tents for the Energy Policy Act of 2005 (Public Law  
5 109–58; 119 Stat. 594) is further amended by in-  
6 sserting after the item relating to section 639 the fol-  
7 lowing:

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

8 (d) NUCLEAR STRATEGIC PLAN.—

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

13 **“SEC. 959B. NUCLEAR ENERGY STRATEGIC PLAN.**

14 “(a) IN GENERAL.—Not later than 180 days after  
15 the date of enactment of this section, the Secretary shall  
16 submit to the Committees on Energy and Commerce and  
17 Science, Space, and Technology of the House of Rep-  
18 resentatives and the Committee on Energy and Natural  
19 Resources of the Senate a 10-year strategic plan for the  
20 Office of Nuclear Energy of the Department, in accord-  
21 ance with this section.

22 “(b) REQUIREMENTS.—

23 “(1) COMPONENTS.—The strategic plan under  
24 this section shall designate—

1           “(A) programs that support the planned  
2 accomplishment of—

3                   “(i) the goals established under sec-  
4 tion 959A; and

5                   “(ii) the demonstration programs  
6 identified under subsection (c) of that sec-  
7 tion; and

8           “(B) programs that—

9                   “(i) do not support the planned ac-  
10 complishment of demonstration programs,  
11 or the goals, referred to in subparagraph  
12 (A); but

13                   “(ii) are important to the mission of  
14 the Office of Nuclear Energy, as deter-  
15 mined by the Secretary.

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

19                   “(A) the accomplishment of relevant objec-  
20 tives under current programs of the Depart-  
21 ment; or

22                   “(B) the commencement of new programs  
23 to accomplish those objectives.

24           “(c) UPDATES.—Not less frequently than once every  
25 2 years, the Secretary shall submit to the Committees on

1 Energy and Commerce and Science, Space, and Tech-  
 2 nology of the House of Representatives and the Committee  
 3 on Energy and Natural Resources of the Senate an up-  
 4 dated strategic plan in accordance with subsection (b),  
 5 which shall identify, and provide a justification for, any  
 6 major deviation from a previous strategic plan submitted  
 7 under this section.”.

8 (2) TABLE OF CONTENTS.—The table of con-  
 9 tents for the Energy Policy Act of 2005 (Public Law  
 10 109–58; 119 Stat. 594) is further amended by in-  
 11 serting after the item relating to section 959A the  
 12 following:

“Sec. 959B. Nuclear energy strategic plan.”.

13 **SEC. 128. INNOVATION IN CARBON REMOVAL, UTILIZATION,**  
 14 **AND STORAGE THROUGH RESEARCH, DEVEL-**  
 15 **OPMENT, AND DEMONSTRATION.**

16 (a) CARBON REMOVAL.—

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

20 **“SEC. 969. CARBON REMOVAL.**

21 “(a) ESTABLISHMENT.—The Secretary, in coordina-  
 22 tion with the Secretary of Agriculture, and in consultation  
 23 with the Secretary of the Interior and the Administrator  
 24 of the Environmental Protection Agency, shall establish  
 25 a research, development, and demonstration program (re-

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

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

6 “(1) is cross-cutting in nature; and

7 “(2) includes the coordinated participation of  
8 the Office of Fossil Energy, the Office of Science,  
9 and the Office of Energy Efficiency and Renewable  
10 Energy.

11 “(c) PROGRAM ACTIVITIES.—The program may in-  
12 clude research, development, and demonstration activities  
13 relating to—

14 “(1) direct air capture and storage technologies;

15 “(2) bioenergy with carbon capture and seques-  
16 tration;

17 “(3) enhanced geological weathering;

18 “(4) agricultural and grazing practices;

19 “(5) forest management and afforestation;

20 “(6) conservation and restoration of tidal  
21 marshes, mangroves, and seagrasses; and

22 “(7) planning and management of other types  
23 of natural and artificial carbon sinks.

1       “(d) REQUIREMENTS.—In developing and identifying  
2 carbon removal technologies and strategies under the pro-  
3 gram, the Secretary shall consider—

4           “(1) the potential for carbon removal or reduc-  
5 tion on a gigaton scale;

6           “(2) the extent to which the carbon storage can  
7 be made permanent;

8           “(3) net greenhouse gas emissions;

9           “(4) ocean acidification;

10          “(5) land use changes, including impacts on  
11 natural and managed ecosystems;

12          “(6) other potential impacts to human health  
13 and safety and the environment;

14          “(7) commercial viability;

15          “(8) economic co-benefits; and

16          “(9) the impacts described in paragraphs (1)  
17 through (8) in both the near-term and the long-  
18 term.”.

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

“Sec. 969. Carbon removal.”.

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

1           (1) in paragraph (6), by inserting “, including  
2           technology development to reduce emissions of car-  
3           bon dioxide and associated emissions of heavy metals  
4           and other toxic substances within coal combustion  
5           residues and gas streams resulting from fossil fuel  
6           use and production” before the period at the end;  
7           and

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

10           “(7) Increasing the export of fossil energy-re-  
11           lated equipment, technology, including carbon re-  
12           moval and utilization technologies, and services from  
13           the United States.

14           “(8) Developing carbon removal and utilization  
15           technologies, products, and methods that result in  
16           net reductions in greenhouse gas emissions, includ-  
17           ing direct air capture and storage, and carbon use  
18           and reuse for commercial application.

19           “(9) Improving the conversion, use, and storage  
20           of carbon dioxide produced from fossil fuels.”.

21           (c) CARBON REMOVAL TECHNOLOGY PRIZE COM-  
22           PETITION.—

23           (1) DEFINITIONS.—In this subsection:

24           (A) DILUTE MEDIA.—The term “dilute  
25           media” means media in which the concentration

1 of carbon dioxide is less than 1 percent by vol-  
2 ume.

3 (B) PRIZE COMPETITION.—The term  
4 “prize competition” means the competitive tech-  
5 nology prize competition established under  
6 paragraph (2).

7 (C) SECRETARY.—The term “Secretary”  
8 means the Secretary of Energy.

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

15 (3) REQUIREMENTS.—In carrying out this sub-  
16 section, the Secretary, in accordance with section 24  
17 of the Stevenson-Wydler Technology Innovation Act  
18 of 1980 (15 U.S.C. 3719), shall develop require-  
19 ments for—

20 (A) the prize competition process; and

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



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

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

6 (B) meet minimum levels set by the Sec-  
7 retary for the capture of carbon dioxide from  
8 dilute media; and

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

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

13 (I) be operated on a demonstra-  
14 tion scale; and

15 (II) have the potential to achieve  
16 significant reduction in the concentra-  
17 tion of carbon dioxide in the atmos-  
18 phere;

19 (ii) a successful bench-scale dem-  
20 onstration of a carbon capture technology;

21 or

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

24 (d) CARBON UTILIZATION.—

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

4   **“SEC. 969A. CARBON UTILIZATION PROGRAM.**

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

7           “(1) to assess and monitor—

8               “(A) potential changes in lifecycle carbon  
9       dioxide and other greenhouse gas emissions;  
10       and

11               “(B) other environmental safety indicators  
12       of new technologies, practices, processes, or  
13       methods used in enhanced hydrocarbon recovery  
14       as part of the activities authorized under sec-  
15       tion 963;

16           “(2) to identify and assess novel uses for car-  
17       bon, including the conversion of carbon oxides for  
18       commercial and industrial products, such as—

19               “(A) chemicals;

20               “(B) plastics;

21               “(C) building materials;

22               “(D) fuels;

23               “(E) cement;

24               “(F) products of coal use in power systems  
25       or other applications; or

1           “(G) other products with demonstrated  
2           market value;

3           “(3) to identify and assess carbon capture tech-  
4           nologies for industrial systems; and

5           “(4) to identify and assess alternative uses for  
6           coal that do not result in the release of carbon diox-  
7           ide into the atmosphere, including as inputs for  
8           products derived from carbon engineering, carbon  
9           fiber, and coal conversion methods.”.

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

“Sec. 969A. Carbon utilization program.”.

15           (e) DEMONSTRATING CARBON CAPTURE AND SE-  
16           QUESTRATION TECHNOLOGIES FOR ELECTRIC GENER-  
17           ATING FACILITIES.—

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

1 **“SEC. 969B. DEMONSTRATING CARBON CAPTURE AND SE-**  
2 **QUESTRATION TECHNOLOGIES FOR ELEC-**  
3 **TRIC GENERATING FACILITIES.**

4 “(a) IN GENERAL.—The Secretary shall establish a  
5 program for developing and demonstrating carbon capture  
6 and sequestration technologies for reducing the carbon di-  
7 oxide emissions from new and existing facilities that burn  
8 coal or natural gas to generate electricity. The primary  
9 objective of this demonstration program shall be to deploy  
10 large scale pilot projects and demonstration projects that  
11 will accelerate the development, deployment, and commer-  
12 cialization of advanced new technologies for the capture  
13 and sequestration of carbon dioxide emissions from coal  
14 fired and natural gas-fired electric generating facilities.

15 “(b) DEPLOYMENT OF PILOT AND DEMONSTRATION  
16 PROJECTS.—The Secretary shall provide Federal financial  
17 assistance to eligible project developers to support the de-  
18 ployment of the following:

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

25 “(2) DEMONSTRATION PROJECTS.—Demonstra-  
26 tion projects that deploy carbon capture and seques-

1 tration technologies that have completed pilot scale  
2 testing or the equivalent, as determined by the Sec-  
3 retary, for demonstrating such technologies on coal  
4 and natural gas fired electric generating facilities  
5 that are greater than 200 megawatts.

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

11 “(1) evaluating the performance, reliability, ef-  
12 ficiency, and cost competitiveness of the technology  
13 for reducing carbon dioxide emissions and limiting  
14 other environmental impacts from the coal fired or  
15 natural gas fired electric generating facilities; and

16 “(2) gaining the operating data needed to un-  
17 derstand the technical and performance risks of the  
18 technology under a wide range of representative op-  
19 erating conditions before the application of the tech-  
20 nology at full commercial scale.

21 “(d) COST-SHARING.—Each project shall be fund-  
22 ed—

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

1        ized under section 988(b) for large-scale pilot  
 2        projects and section 988(e) for demonstration  
 3        projects; or

4                “(2) under subtitle A of title I of the Clean En-  
 5        ergy Innovation and Deployment Act of 2020.

6        “(e) AUTHORIZATION OF APPROPRIATIONS.—There  
 7        are authorized to be appropriated to carry out this section  
 8        such sums as are necessary for each of the fiscal years  
 9        2021 through 2050.”.

10                (2) CLERICAL AMENDMENT.—The table of con-  
 11        tents for the Energy Policy Act of 2005 (Public Law  
 12        109–58; 119 Stat. 600) is amended by adding at the  
 13        end of the items relating to subtitle F of title IX the  
 14        following:

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

15        **SEC. 129. DEPLOYMENT OF ELECTRIC GRID MODERNIZA-**  
 16                        **TION THROUGH GRANTS.**

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

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

1 prediction of performance of, the electricity distribu-  
2 tion system; and

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

6 (b) ELIGIBLE PROJECTS.—Projects for which an eli-  
7 gible partnership may receive financial assistance under  
8 subsection (a) shall—

9 (1) be designed to—

10 (A) improve the siting, construction, resil-  
11 iency, performance, or efficiency of the electric  
12 grid, while ensuring the continued provision of  
13 safe, secure, reliable, and affordable power; or

14 (B) deploy a new product or technology  
15 that could be used by or for the benefit of cus-  
16 tomers of an electric utility; and

17 (2) demonstrate—

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

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

4           (c) CYBERSECURITY PLAN.—Each project carried  
5 out with financial assistance provided under subsection (a)  
6 shall include the development of a cybersecurity plan writ-  
7 ten in accordance with guidelines developed by the Sec-  
8 retary of Energy.

9           (d) PRIVACY EFFECTS ANALYSIS.—Each project car-  
10 ried out with financial assistance provided under sub-  
11 section (a) shall include a privacy effects analysis that  
12 evaluates the project in accordance with the Voluntary  
13 Code of Conduct of the Department of Energy, commonly  
14 known as the “DataGuard Energy Data Privacy Pro-  
15 gram”, or the most recent revisions to the privacy pro-  
16 gram of the Department.

17           (e) DEFINITIONS.—In this section:

18                   (1) ELIGIBLE PARTNERSHIP.—The term “eligi-  
19 ble partnership” means a partnership consisting of  
20 two or more entities, which—

21                           (A) may include—

22                                   (i) any institution of higher education;

23                                   (ii) a National Laboratory;



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

4 (iv) an Indian Tribe;

5 (v) a Federal power marketing admin-  
6 istration; or

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

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

11 (i) an electric utility;

12 (ii) a Regional Transmission Organi-  
13 zation; or

14 (iii) an Independent System Operator.

15 (2) ELECTRIC UTILITY.—The term “electric  
16 utility” has the meaning given that term in section  
17 3(22) of the Federal Power Act (16 U.S.C.  
18 796(22)), except that such term does not include an  
19 entity described in subparagraph (B) of such sec-  
20 tion.

21 (3) FEDERAL POWER MARKETING ADMINISTRA-  
22 TION.—The term “Federal power marketing admin-  
23 istration” means the Bonneville Power Administra-  
24 tion, the Southeastern Power Administration, the

1 Southwestern Power Administration, or the Western  
2 Area Power Administration.

3 (4) INDEPENDENT SYSTEM OPERATOR; RE-  
4 GIONAL TRANSMISSION ORGANIZATION.—The terms  
5 “Independent System Operator” and “Regional  
6 Transmission Organization” have the meanings  
7 given those terms in section 3 of the Federal Power  
8 Act (16 U.S.C. 796).

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

13 (f) AUTHORIZATION OF APPROPRIATIONS.—There is  
14 authorized to be appropriated to carry out this section  
15 \$200,000,000 for each of fiscal years 2021 through 2025,  
16 to remain available until expended.

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

19 (a) DEFINITIONS.—In this section:

20 (1) PRIZE.—The term “prize” means a prize  
21 awarded under the prize competition.

22 (2) PRIZE COMPETITION.—The term “prize  
23 competition” means the competition established  
24 under subsection (b).

1           (3) SECRETARY.—The term “Secretary” means  
2           the Secretary of Energy.

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

11          (c) REQUIREMENTS.—In carrying out this sub-  
12          section, the Secretary, in accordance with section 24 of  
13          the Stevenson-Wydler Technology Innovation Act of 1980  
14          (15 U.S.C. 3719), shall develop requirements for—

- 15                 (1) the prize competition process; and  
16                 (2) monitoring and verification procedures for  
17          projects selected to receive a prize.

18          (d) ELIGIBLE TECHNOLOGIES.—The technologies eli-  
19          gible to awarded a prize shall include—

- 20                 (1) technologies that generate electricity and  
21          can be used without connection to the electric grid;  
22                 (2) technologies that store energy; and  
23                 (3) appliances that are highly-efficient in their  
24          use of electricity, including—

- 25                         (A) lights;

1 (B) mobile telephone chargers;

2 (C) computers;

3 (D) fans;

4 (E) refrigerators; and

5 (F) stoves and ovens.

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

8 (1) function properly;

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

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

14 (4) be compatible with other technologies rel-  
15 evant to its functioning, including those which have  
16 been or are being awarded prizes under this section;  
17 and

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

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

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

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

5 (a) DEFINITION.—In this section, the term “critical  
6 technologies” means the technologies identified in sections  
7 111 through 128 of subtitles B and C of this title, includ-  
8 ing technologies related to—

- 9 (1) electric vehicles;
- 10 (2) energy efficient buildings;
- 11 (3) solar and wind energy;
- 12 (4) energy storage;
- 13 (5) nuclear power;
- 14 (6) carbon removal, utilization, and storage;
- 15 (7) electric grid modernization; and
- 16 (8) any other technologies whose deployment  
17 the Secretary may advance through the implementa-  
18 tion of this title and the amendments made by this  
19 title.

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

1           (1) identifies the major risks and benefits asso-  
2           ciated with the deployment of critical technologies;

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

5           (3) analyzes barriers to deployment of critical  
6           technologies, including—

7                   (A) the state of existing research, develop-  
8                   ment, demonstration, and deployment;

9                   (B) a detailed identification of the foresee-  
10                  able technical milestones of the research, devel-  
11                  opment, demonstration, and deployment de-  
12                  scribed in paragraph (A);

13                  (C) the projected likelihood of viability at  
14                  commercial scale;

15                  (D) access to capital;

16                  (E) adverse environmental impacts;

17                  (F) materials challenges relating to ex-  
18                  treme environments, including—

19                           (i) temperature;

20                           (ii) pressure;

21                           (iii) corrosion;

22                           (iv) seasonality; and

23                           (v) weather events;

24                  (G) geographic barriers; and

1 (H) economic and other challenges par-  
2 ticular to different regions of the United States;

3 (4) estimates the amount and form of any fi-  
4 nancial assistance, compensation, or incentives need-  
5 ed for wide-scale deployment of critical technologies;

6 (5) recommends additional nonregulatory strat-  
7 egies that could increase the deployment of critical  
8 technologies;

9 (6) identifies appropriate Federal agencies with  
10 capabilities to support State and local efforts to-  
11 wards deployment of the critical technologies;

12 (7) identifies all Federal financial assistance  
13 programs relevant to the deployment of the critical  
14 technologies and analyzes the extent to which such  
15 programs overlap or are duplicative; and

16 (8) evaluates the current architecture of re-  
17 gional electric grids (including international trans-  
18 mission connections of such grids) that together  
19 comprise the Nation's electric grid, with respect to—

20 (A) potential growth in renewable energy  
21 generation, including energy generation from  
22 offshore wind;

23 (B) potential growth in electricity demand;

24 (C) retirement of existing electricity gen-  
25 eration assets; and

1 (D) the range of benefits that interregional  
2 transmission provides.

3 **Subtitle D—Davis-Bacon**  
4 **Compliance**

5 **SEC. 141. DAVIS-BACON COMPLIANCE.**

6 (a) IN GENERAL.—All laborers and mechanics em-  
7 ployed on projects funded directly, or assisted in whole or  
8 in part, by this Act shall be paid wages at rates not less  
9 than those prevailing on projects of a character similar  
10 in the locality as determined by the Secretary of Labor  
11 in accordance with subchapter IV of chapter 31 of part  
12 A of subtitle II of title 40, United States Code (commonly  
13 referred to as the “Davis-Bacon Act”).

14 (b) AUTHORITY.—With respect to the labor stand-  
15 ards specified in this section, the Secretary of Labor shall  
16 have the authority and functions set forth in Reorganiza-  
17 tion Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C.  
18 App.) and section 3145 of title 40, United States Code.

19 **TITLE II—ZERO-EMISSION**  
20 **ELECTRICITY STANDARD**

21 **SEC. 200. PURPOSE.**

22 The purpose of this title is to accelerate the deploy-  
23 ment of zero-emission electricity technology sufficient to  
24 allow the United States to achieve an affordable, reliable,  
25 net-zero-emission electricity sector by no later than 2050.



1                   **Subtitle A—Zero-Emission**  
2                   **Electricity Standard**

3 **SEC. 201. DEFINITIONS.**

4           In this subtitle:

5                   (1) **AFFILIATE.**—The term “affiliate” has the  
6                   meaning given such term in section 1262 of the En-  
7                   ergy Policy Act of 2005 (42 U.S.C. 16451).

8                   (2) **ASSOCIATE COMPANY.**—The term “associate  
9                   company” has the meaning given such term in sec-  
10                   tion 1262 of the Energy Policy Act of 2005 (42  
11                   U.S.C. 16451).

12                   (3) **BEHIND-THE-METER GENERATION SYS-**  
13                   **TEM.**—The term “behind-the-meter generation sys-  
14                   tem” means a system of generation of electric en-  
15                   ergy that operates on the electric consumer side of  
16                   the applicable utility meter.

17                   (4) **BENEFICIAL ELECTRIFICATION-RELATED**  
18                   **REDUCTION.**—The term “beneficial electrification-re-  
19                   lated reduction” means the net reduction of the ag-  
20                   gregate greenhouse gas emissions of a retail elec-  
21                   tricity supplier and an electric consumer as the re-  
22                   sult of the replacement of a power source of the elec-  
23                   tric consumer that is not electric energy with electric  
24                   energy provided by the retail electricity supplier, in-

1 including for the purpose of transportation, space  
2 heating, water heating, or industrial processes.

3 (5) CARBON DIOXIDE EQUIVALENT.—The term  
4 “carbon dioxide equivalent” means the number of  
5 metric tons of carbon dioxide emissions with the  
6 same global warming potential over a 20-year period  
7 as 1 metric ton of another greenhouse gas, including  
8 the effects of climate-carbon feedbacks for both car-  
9 bon dioxide and the other greenhouse gas, as deter-  
10 mined in accordance with the Fifth Assessment Re-  
11 port of the Intergovernmental Panel on Climate  
12 Change. For methane, the global warming potential  
13 shall include the effect of carbon dioxide from meth-  
14 ane oxidation in the atmosphere.

15 (6) CARBON INTENSITY.—The term “carbon in-  
16 tensity” means the carbon dioxide equivalent emis-  
17 sions associated with the generation of 1 megawatt-  
18 hour of electric energy, as determined by the Sec-  
19 retary under section 204.

20 (7) ELECTRIC CONSUMER.—The term “electric  
21 consumer” has the meaning given such term in sec-  
22 tion 3 of the Public Utility Regulatory Policies Act  
23 of 1978 (16 U.S.C. 2602).

24 (8) FEDERAL POWER MARKETING ADMINISTRA-  
25 TION.—The term “Federal Power Marketing Admin-

1       istration” means the Bonneville Power Administra-  
2       tion, the Southeastern Power Administration, the  
3       Southwestern Power Administration, or the Western  
4       Area Power Administration.

5           (9) GENERATING UNIT.—The term “generating  
6       unit” means a unit or system of units that—

7           (A) generates electric energy that is con-  
8       sumed in the United States;

9           (B) generates not fewer than 20 megawatt-  
10       hours of electric energy per calendar year; and

11          (C)(i) delivers electric energy to the elec-  
12       tric grid; or

13          (ii) in the case of a behind-the-meter gen-  
14       eration system—

15           (I) delivers electric energy to the elec-  
16       tric grid; or

17           (II) generates electric energy that is  
18       consumed onsite for a useful purpose other  
19       than for generating electric energy.

20          (10) GENERATOR.—The term “generator”  
21       means the owner or operator of a generating unit.

22          (11) GREENHOUSE GAS.—The term “green-  
23       house gas” includes each of the following:

24           (A) Carbon dioxide.

25           (B) Methane.

- 1 (C) Nitrous oxide.
- 2 (D) Sulfur hexafluoride.
- 3 (E) Any hydrofluorocarbon.
- 4 (F) Any perfluorocarbon.
- 5 (G) Nitrogen trifluoride.
- 6 (H) Any fully fluorinated linear, branched,  
7 or cyclic—
- 8 (i) alkane;
- 9 (ii) ether;
- 10 (iii) tertiary amine; or
- 11 (iv) aminoether.
- 12 (I) Any perfluoropolyether.
- 13 (J) Any hydrofluoropolyether.
- 14 (K) Any other fluorocarbon, except for a  
15 fluorocarbon with a vapor pressure of less than  
16 1 mm of Hg absolute at 25 degrees Celsius.
- 17 (12) QUALIFIED COMBINED HEAT AND POWER  
18 SYSTEM.—The term “qualified combined heat and  
19 power system” means a system that—
- 20 (A) uses the same energy source for the si-  
21 multaneous or sequential generation of electric  
22 energy and thermal energy;
- 23 (B) produces at least—

1 (i) 20 percent of the useful energy of  
2 the system in the form of electric energy;  
3 and

4 (ii) 20 percent of the useful energy of  
5 the system in the form of useful thermal  
6 energy;

7 (C) to the extent that the system uses bio-  
8 mass, uses only qualified renewable biomass;  
9 and

10 (D) operates with an energy efficiency per-  
11 centage, as determined in accordance with sec-  
12 tion 48(c)(3)(C)(i) of the Internal Revenue  
13 Code of 1986, of greater than 60 percent on a  
14 year-round basis.

15 (13) QUALIFIED ELECTRICITY GENERATION.—

16 (A) IN GENERAL.—The term “qualified  
17 electricity generation” means the number of  
18 megawatt-hours of electric energy that a gener-  
19 ator generates using a generating unit and—

20 (i) sells directly or indirectly for use  
21 by electric consumers for purposes other  
22 than resale; or

23 (ii) that is consumed onsite for a use-  
24 ful purpose other than for generating elec-  
25 tric energy.

1 (B) AFFILIATE SALES.—For purposes of  
2 calculating the quantity of electric energy sold  
3 by a retail electricity supplier under this para-  
4 graph, the quantity of electric energy sold—

5 (i) by an affiliate of the retail elec-  
6 tricity supplier, or an associate company of  
7 the retail electricity supplier, to an electric  
8 consumer (other than to a lessee or tenant  
9 of the affiliate or associate company) shall  
10 be treated as sold by the retail electricity  
11 supplier; and

12 (ii) by such retail electricity supplier  
13 to an affiliate, lessee, or tenant of the re-  
14 tail electricity supplier shall not be consid-  
15 ered to be a sale to an electric consumer.

16 (14) QUALIFIED LOW-CARBON FUEL.—

17 (A) IN GENERAL.—The term “qualified  
18 low-carbon fuel” means a fuel that—

19 (i) is produced through any process  
20 that significantly limits or avoids green-  
21 house gas emissions; and

22 (ii) does not release greenhouse gas  
23 emissions during combustion.

1 (B) INCLUSION.—The term “qualified low-  
2 carbon fuel” includes, subject to subparagraph

3 (A)—

4 (i) ammonia; and

5 (ii) hydrogen.

6 (15) QUALIFIED RENEWABLE BIOMASS.—

7 (A) IN GENERAL.—The term “qualified re-  
8 newable biomass” means—

9 (i) any crop byproduct, or crop res-  
10 idue, harvested from actively managed, or  
11 fallow, agricultural land that was cleared  
12 before January 1, 2020, if the harvesting  
13 of the byproduct or residue does not lead  
14 to a net decline in soil organic matter for  
15 the applicable land;

16 (ii) any cellulose, hemicellulose, or  
17 lignin that is derived from a plant that is  
18 planted for the purpose of being used to  
19 produce energy on land that was, as of  
20 January 1, 2020—

21 (I) cropland, including fallow  
22 land or other land with a cropping  
23 history;

24 (II) a brownfield site (as defined  
25 in section 101(39) of the Comprehen-

- 1                   sive Environmental Response, Com-  
2                   pensation, and Liability Act of 1980  
3                   (42 U.S.C. 9601(39)); or  
4                   (III) an abandoned mine site;  
5                   (iii) nonhazardous algal or other  
6                   micro-crop matter; and  
7                   (iv) waste—  
8                   (I) that is burned in a qualified  
9                   combined heat and power system; and  
10                  (II) that is—  
11                  (aa) methane captured from  
12                  a landfill, an animal production  
13                  facility, or a sewage treatment  
14                  operation;  
15                  (bb) nonhazardous land-  
16                  scape or right-of-way trimmings;  
17                  (cc) vegetative matter re-  
18                  moved from an area located not  
19                  more than 200 yards from a  
20                  building, residence, or camp-  
21                  ground for the purpose of pro-  
22                  tecting structures from wildfire;  
23                  (dd) any byproduct of a  
24                  wood mill or paper mill oper-  
25                  ation, including lignin in spent



1           pulping liquors, that is dem-  
2           onstrated to otherwise be burned  
3           for energy onsite;

4                   (ee) plant material removed  
5           for the purposes of invasive or  
6           noxious plant species control; or

7                   (ff) downed wood from ex-  
8           treme weather events.

9                   (B) LIMIT OF INCLUSION OF INVASIVE  
10           SPECIES.—Except as provided in subparagraph  
11           (A)(iv)(II)(ee), the term “qualified renewable  
12           biomass” does not include any matter that the  
13           Secretary of Agriculture, in consultation with  
14           other Federal or State departments and agen-  
15           cies the Secretary determines appropriate, de-  
16           termines is derived from—

17                   (i) a plant that is invasive or noxious;

18                   or

19                   (ii) a species or varieties of plants  
20           that are potentially invasive.

21                   (16) QUALIFIED WASTE-TO-ENERGY.—The  
22           term “qualified waste-to-energy” means electric en-  
23           ergy generated—

24                   (A) from the combustion of—

1 (i) post-recycled municipal solid waste,  
2 provided such combustion does not result  
3 in emissions of—

4 (I) an air pollutant for which air  
5 quality criteria has been issued under  
6 section 108 of the Clean Air Act; or

7 (II) a hazardous air pollutant  
8 listed pursuant to section 112(b) of  
9 the Clean Air Act;

10 (ii) gas produced from the gasification  
11 or pyrolysis of post-recycled municipal  
12 solid waste;

13 (iii) biogas;

14 (iv) landfill methane;

15 (v) animal waste or animal byprod-  
16 ucts;

17 (vi) food waste;

18 (vii) if diverted from or separated  
19 from other waste out of a municipal waste  
20 stream—

21 (I) paper products that are not  
22 commonly recyclable;

23 (II) vegetation;

24 (III) tree trimmings;

1 (IV) solid-wood yard waste, pal-  
2 lets, or crates; or

3 (V) manufacturing and construc-  
4 tion debris; or

5 (viii) any byproduct of a wood or  
6 paper mill operation, including lignin in  
7 spent pulping liquors; and

8 (B) at a facility that the Secretary has cer-  
9 tified, within the past 3 years, is in compliance  
10 with all applicable Federal and State environ-  
11 mental permits.

12 (17) RETAIL ELECTRICITY SUPPLIER.—The  
13 term “retail electricity supplier”, as determined for  
14 each calendar year, means an entity in the United  
15 States that sold not fewer than 20 megawatt-hours  
16 of electric energy to electric consumers for purposes  
17 other than resale during the preceding calendar  
18 year.

19 (18) SALE.—The term “sale”, when used with  
20 respect to electric energy, has the meaning given  
21 such term in section 3(13) of the Public Utility Reg-  
22 ulatory Policies Act of 1978 (16 U.S.C. 2602(13)).

23 (19) SECRETARY.—The term “Secretary”  
24 means the Secretary of Energy.

1           (20) STATE.—Except as otherwise provided in  
2 this title, the term “State” means a State of the  
3 United States and any district, commonwealth, terri-  
4 tory, or possession of the United States.

5           (21) ZERO-EMISSION ELECTRICITY.—The term  
6 “zero-emission electricity” means the fraction of the  
7 electric energy generated by a given generating unit  
8 whose generation is not associated with the release  
9 of greenhouse gases to the atmosphere. The number  
10 of megawatt-hours of zero-emission electricity of a  
11 given generating unit is equal to the product ob-  
12 tained by multiplying—

13                   (A) the qualified electricity generation of  
14 the generating unit; by

15                   (B) the extent to which the operation of  
16 the generating unit results in fewer greenhouse  
17 gas emissions than an efficient coal-burning  
18 power plant, which is the number that equals—

19                           (i) 1.0; less

20                           (ii) the quotient obtained by divid-  
21 ing—

22                                   (I) the carbon intensity of the  
23 generating unit; by

24                                   (II) the carbon intensity of an ef-  
25 ficient coal-burning power plant

1 (which is 0.82 metric tons of carbon  
2 dioxide per megawatt-hour).

3 (22) ZERO-EMISSION ELECTRICITY CREDIT.—

4 The term “zero-emission electricity credit” means a  
5 credit issued pursuant to section 204.

6 **SEC. 202. ZERO-EMISSION ELECTRICITY REQUIREMENT.**

7 (a) ZERO-EMISSION ELECTRICITY REQUIREMENT.—

8 (1) CREDIT SUBMISSION REQUIREMENT.—Ex-  
9 cept as otherwise provided in this section, effective  
10 beginning with calendar year 2022, for each cal-  
11 endar year, not later than June 1 of the following  
12 calendar year, each retail electricity supplier shall  
13 submit to the Secretary a quantity of zero-emission  
14 electricity credits that is equal to—

15 (A) for each of calendar years 2022 and  
16 2023, the quantity of zero-emission electricity  
17 credits determined under paragraph (3) for the  
18 retail electricity supplier for such calendar year;  
19 and

20 (B) for calendar year 2024 and each cal-  
21 endar year thereafter, the average of the quan-  
22 tity of zero-emission electricity credits deter-  
23 mined under paragraph (3) for the retail elec-  
24 tricity supplier for such calendar year and the  
25 two prior calendar years.

1           (2) VOLUNTARY ASSIGNMENT OF COMPLIANCE  
2           OBLIGATION BY PUBLIC POWER UTILITIES AND  
3           ELECTRIC COOPERATIVES.—Any retail electricity  
4           supplier that is an electric cooperative, a State, or  
5           any political subdivision of a State, may elect to  
6           enter into an agreement with another political sub-  
7           division of a State, an electric cooperative that has  
8           an obligation to serve such retail electricity supplier,  
9           or a generator to assign any reporting or compliance  
10          obligation under this title to such other political sub-  
11          division of a State, electric cooperative, or generator.  
12          An assignment made under this paragraph shall be  
13          established through a binding agreement executed  
14          among the relevant parties.

15          (3) QUANTITY OF ZERO-EMISSION ELECTRICITY  
16          CREDITS.—

17                (A) IN GENERAL.—For each calendar year,  
18                the Secretary shall determine a quantity of  
19                zero-emission electricity credits for a retail elec-  
20                tricity supplier that is equal to the product ob-  
21                tained by multiplying—

22                    (i) the total quantity of electric en-  
23                    ergy, in megawatt-hours, consumed by  
24                    electric consumers of the retail electricity  
25                    supplier during the calendar year, that is

1 provided by the retail electricity supplier or  
2 by a behind-the-meter generation system,  
3 as reported under subsection (b); by

4 (ii) the minimum percentage of zero-  
5 emission electricity for the calendar year.

6 (B) DEDUCTION FOR BENEFICIAL ELEC-  
7 TRIFICATION.—

8 (i) REDUCTION.—In calculating the  
9 total quantity of electric energy consumed  
10 by electric consumers of a retail electricity  
11 supplier under subparagraph (A)(i), the  
12 Secretary shall deduct a quantity, in mega-  
13 watt-hours, determined in accordance with  
14 clause (ii) to account for beneficial elec-  
15 trification-related reductions.

16 (ii) DETERMINATION.—The Secretary  
17 shall make a determination of the quantity  
18 of electric energy, in megawatt-hours, asso-  
19 ciated with beneficial electrification-related  
20 reductions for a retail electricity supplier  
21 for a calendar year. Such determination  
22 shall be made on the basis of—

23 (I) the carbon intensity of the  
24 electric energy sold by the retail elec-  
25 tricity supplier that results in such

1 beneficial electrification-related reduc-  
2 tions; and

3 (II) the greenhouse gas emissions  
4 of power sources that are not electric  
5 energy that were replaced with electric  
6 energy provided by the retail elec-  
7 tricity supplier which results in such  
8 beneficial electrification-related reduc-  
9 tions.

10 (C) SYSTEM SUPPORT RESOURCE.—For  
11 any calendar year in which a generating unit  
12 that is owned by a retail electricity supplier has  
13 been designated a System Support Resource by  
14 the Federal Energy Regulatory Commission  
15 and is thereby required, by an Independent Sys-  
16 tem Operator or Regional Transmission Organi-  
17 zation, or under a State-regulated resource  
18 planning process, to remain in operation be-  
19 cause retirement of the generating unit would  
20 harm the reliability of the electric energy trans-  
21 mission system, in calculating the total quantity  
22 of electric energy consumed by electric con-  
23 sumers of the retail electricity supplier under  
24 subparagraph (A)(i), the Secretary shall deduct  
25 the quantity of megawatt-hours of electricity



1 generated by such generating unit during such  
2 calendar year.

3 (4) AVERAGE CREDIT PRICES.—For each cal-  
4 endar year, the Secretary shall—

5 (A) analyze the market for zero-emission  
6 electricity credits in order to determine the av-  
7 erage annual price of zero-emission electricity  
8 credits for the calendar year;

9 (B) determine whether the average annual  
10 price of a zero-emission electricity credit deter-  
11 mined under subparagraph (A) is less than half  
12 of the alternative compliance payment under  
13 subsection (c) for the calendar year; and

14 (C) publish the determinations made under  
15 subparagraphs (A) and (B) by not later than  
16 January 31 of the year following the calendar  
17 year.

18 (5) DEFINITIONS.—In this subsection:

19 (A) ANNUAL PERCENTAGE INCREASE.—

20 (i) Except as provided in clause (ii),  
21 the term “annual percentage increase”  
22 means, with respect to a retail electricity  
23 supplier, the product obtained by multi-  
24 plying—

1 (I) the difference between 100  
2 percent and the baseline zero-emission  
3 electricity percentage; by—

4 (II)  $\frac{1}{27}$ .

5 (ii) Notwithstanding clause (i), begin-  
6 ning with calendar year 2025, if the Sec-  
7 retary determines under paragraph (4)  
8 that the average annual price of a zero-  
9 emission electricity credit for each of the 3  
10 calendar years prior to a calendar year (in  
11 this clause referred to as “the applicable  
12 calendar year”) is less than one half of the  
13 respective alternative compliance payment  
14 for each of the 3 such prior calendar years,  
15 the annual percentage increase for the 1  
16 calendar year that begins 4 years after the  
17 end of the applicable calendar year shall be  
18 twice the percentage described in clause  
19 (i).

20 (B) BASELINE ZERO-EMISSION ELEC-  
21 TRICITY PERCENTAGE.—

22 (i) IN GENERAL.—The term “baseline  
23 zero-emission electricity percentage”  
24 means, with respect to a retail electricity  
25 supplier, the average percentage of the

1 electric energy consumed by all electric  
2 consumers of the retail electricity supplier  
3 that is zero-emission electricity during cal-  
4 endar years 2017, 2018, and 2019.

5 (ii) ELECTION.—For any retail elec-  
6 tricity supplier served by an Independent  
7 System Operator or a Regional Trans-  
8 mission Organization, or participating in a  
9 joint unit commitment and centralized eco-  
10 nomic dispatch system regulated by the  
11 Federal Energy Regulatory Commission,  
12 the retail electricity supplier may elect to  
13 set its baseline zero-emission electricity  
14 percentage under clause (i) on the basis of  
15 the zero-emission electricity and electric  
16 energy consumed by either—

17 (I) all electric consumers of the  
18 retail electricity supplier; or

19 (II) all electric consumers served  
20 by the Independent System Operator,  
21 Regional Transmission Organization,  
22 or the applicable joint unit commit-  
23 ment and centralized economic dis-  
24 patch system that serves the retail  
25 electricity supplier.

1 (iii) NOTIFICATION OF ELECTION.—A  
2 retail electricity supplier shall inform the  
3 Secretary of its election under clause (ii)  
4 not later than 180 days after the date of  
5 enactment of this Act.

6 (C) MINIMUM PERCENTAGE OF ZERO-EMIS-  
7 SION ELECTRICITY.—The term “minimum per-  
8 centage of zero-emission electricity” means,  
9 with respect to a retail electricity supplier—

10 (i) for each of calendar years 2022  
11 and 2023, the baseline zero-emission elec-  
12 tricity percentage;

13 (ii) for each of calendar years 2024  
14 through 2050, the amount, not to exceed  
15 100 percent, obtained by adding—

16 (I) the minimum percentage of  
17 zero-emission electricity for the pre-  
18 vious calendar year; and

19 (II) the annual percentage in-  
20 crease; and

21 (iii) for each calendar year after 2050,  
22 100 percent.

23 (b) REPORTING ON BEHIND-THE-METER GENERA-  
24 TION SYSTEMS.—Effective beginning in calendar year  
25 2022, each retail electricity supplier serving one or more

1 behind-the-meter generation systems may, not later than  
 2 January 1 of each calendar year, submit to the Sec-  
 3 retary—

4 (1) verification of the carbon intensity of be-  
 5 hind-the-meter generation systems connected to the  
 6 retail electricity supplier; and

7 (2) the quantity of electric energy generated by  
 8 each such behind-the-meter generation system that  
 9 is consumed for a useful purpose by electric con-  
 10 sumers served by the retail electricity supplier.

11 (c) ALTERNATIVE COMPLIANCE PAYMENTS.—A re-  
 12 tail electricity supplier may satisfy the requirements of  
 13 subsection (a) with respect to a calendar year, in whole  
 14 or in part, by submitting to the Secretary, in lieu of each  
 15 zero-emission electricity credit that would otherwise be  
 16 due, an alternative compliance payment equal to the  
 17 amount determined for such calendar year in accordance  
 18 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.

1           (d) DETERMINATION OF INADEQUATE AVAILABILITY  
2 OF ZERO-EMISSION ELECTRICITY TECHNOLOGY.—

3           (1) PETITION FOR DETERMINATION.—A retail  
4 electricity supplier (referred to in this subsection as  
5 the “petitioner”) may submit to the Secretary a pe-  
6 tition for the Secretary to make a determination of  
7 inadequate availability of technology relating to zero-  
8 emission electricity with respect to a calendar year.

9           (2) CONDITIONS.—The Secretary shall make an  
10 affirmative determination under paragraph (1) (re-  
11 ferred to in this title as a “determination of inad-  
12 equate availability of technology”) for a calendar  
13 year only if—

14                   (A) a petition is submitted to the Secretary  
15                   by January 31 of the following calendar year;

1 (B) the average annual price of zero-emis-  
2 sion electricity credits is equal to or greater  
3 than the alternative compliance payment under  
4 subsection (c) for such calendar year;

5 (C) the Secretary determines the number  
6 of megawatt-hours of zero-emission electricity  
7 that could have been generated or purchased by  
8 the petitioner using technology that was avail-  
9 able during such calendar year—

10 (i) at or below the cost per megawatt-  
11 hour of the technology used to generate  
12 the electricity sold by the petitioner in the  
13 previous calendar year; and

14 (ii) while enabling the petitioner to  
15 operate its system at an adequate level of  
16 reliability; and

17 (D) the number of megawatt-hours deter-  
18 mined under subparagraph (C) is less than the  
19 number of zero-emission electricity credits the  
20 petitioner would be required to submit under  
21 subsection (a).

22 (3) CREDIT SUBMISSION.—Notwithstanding  
23 subsection (a)(1), if the Secretary makes a deter-  
24 mination of inadequate availability of technology for  
25 a petitioner for a calendar year, as described under

1 this subsection, the petitioner shall not be required  
2 to submit for such calendar year more than the  
3 number of zero-emission electricity credits equal to  
4 the number of megawatt-hours determined under  
5 paragraph (2)(C).

6 (4) CARBON MITIGATION AWARDS.—For the  
7 calendar year identified under paragraph (3), if the  
8 Secretary makes one or more determinations of in-  
9 adequate availability of technology under this sub-  
10 section, the Secretary shall award under section  
11 205(b) an amount of money equal to the sum of—

12 (A) the total amount paid by retail elec-  
13 tricity suppliers as alternative compliance pay-  
14 ments; and

15 (B) the total amount of the alternative  
16 compliance payments that would have been  
17 made by the petitioner or petitioners but for the  
18 determination of inadequate availability of tech-  
19 nology made under paragraph (2).

20 (e) EXEMPTIONS.—(1) A qualified zero-emission elec-  
21 tricity taxpayer that receives a zero-emission electricity ac-  
22 celeration investment credit for a calendar year under sec-  
23 tion 45U of the Internal Revenue Code of 1986, as added  
24 by section 301 of this Act, shall not be subject to the re-  
25 quirements to submit zero-emission electricity credits



1 under this section for such calendar year and every cal-  
2 endar year thereafter.

3 (2) An eligible electricity provider that is awarded a  
4 grant under section 302 of this Act for a calendar year  
5 shall not be subject to the requirements to submit zero-  
6 emission electricity credits under this section for such cal-  
7 endar year and every calendar year thereafter, as long as  
8 the condition described under section 302(a)(1) continues  
9 to be met.

10 **SEC. 203. ZERO-EMISSION ELECTRICITY CREDIT TRADING**  
11 **PROGRAM.**

12 (a) ESTABLISHMENT.—Not later than 1 year after  
13 the date of enactment of this Act, the Secretary shall es-  
14 tablish a zero-emission electricity credit trading program  
15 under which—

16 (1) the Secretary shall record, track, auction,  
17 and transfer zero-emission electricity credits; and

18 (2) a generator to whom such zero-emission  
19 electricity credits are issued may sell or otherwise  
20 transfer those credits, as provided or allowed by ap-  
21 plicable contracts, through—

22 (A) any auction established under the zero-  
23 emission electricity credit trading program;

24 (B) direct sales; or

1 (C) other transactional arrangements that  
2 sell electric energy or generating capacity either  
3 separately or combined with the transfer of  
4 zero-emission electricity credits, including trans-  
5 actions that pair zero-emission electricity cred-  
6 its with the demand of the retail electricity sup-  
7 plier.

8 (b) ADMINISTRATION.—In carrying out the program  
9 under this section, the Secretary shall ensure that a zero-  
10 emission electricity credit may be—

11 (1) submitted only once under section 202(a);

12 and

13 (2) only purchased by, transferred to, or other-  
14 wise secured by a retail electricity supplier.

15 (c) DELEGATION OF MARKET FUNCTION.—

16 (1) IN GENERAL.—In carrying out the program  
17 under this section, the Secretary may delegate, to  
18 one or more appropriate entities—

19 (A) the administration of a transparent  
20 national market for the sale or trade of zero-  
21 emission electricity credits; and

22 (B) the tracking of dispatch of zero-emis-  
23 sion electricity generation.

24 (2) ADMINISTRATION.—In making a delegation  
25 under paragraph (1), the Secretary shall ensure that

1 the tracking and reporting of information concerning  
2 the dispatch of zero-emission electricity generation is  
3 transparent, verifiable, and independent of any in-  
4 terests subject to an obligation under this title.

5 (d) BANKING OF ZERO-EMISSION ELECTRICITY  
6 CREDITS.—A zero-emission electricity credit may be used  
7 for compliance with the requirements of section 202 for—

8 (1) the calendar year for which the zero-emis-  
9 sion electricity credit is issued (in this subsection re-  
10 ferred to as “the applicable calendar year”); and

11 (2)(A) any of the 5 calendar years following the  
12 applicable calendar year, if the Secretary determines  
13 under section 202(a)(4) that the average annual  
14 price of a zero-emission electricity credit is equal to  
15 or less than one half of the alternative compliance  
16 payment for each of the 3 calendar years prior to  
17 the applicable calendar year; or

18 (B) if the Secretary has not made the deter-  
19 mination described under subparagraph (A)—

20 (i) any of the 5 calendar years following  
21 the applicable calendar year, if the applicable  
22 calendar year is any of calendar years 2022  
23 through 2029;

24 (ii) any of the 4 calendar years following  
25 the applicable calendar year, if the applicable

1           calendar year is any of calendar years 2030  
2           through 2034;

3           (iii) any of the 3 calendar years following  
4           the applicable calendar year, if the applicable  
5           calendar year is any of calendar years 2035  
6           through 2039; and

7           (iv) any of the 2 calendar years following  
8           the applicable calendar year, if the applicable  
9           calendar year is 2040 or any calendar year  
10          thereafter.

11 **SEC. 204. DETERMINATION AND ISSUANCE OF QUANTITY**  
12 **OF ZERO-EMISSION ELECTRICITY CREDITS.**

13          (a) **ISSUANCE OF ZERO-EMISSION ELECTRICITY**  
14 **CREDITS.**—The Secretary shall issue to each generator a  
15 quantity of zero-emission electricity credits determined in  
16 accordance with this section, not later than March 1 of  
17 the calendar year after the calendar year for which the  
18 zero-emission electricity credits are issued.

19          (b) **GENERAL RULES ON CREDIT ISSUANCE.**—Except  
20 as otherwise provided in this section, the Secretary shall  
21 issue to a generator generating zero-emission electricity  
22 during a calendar year a quantity of zero-emission elec-  
23 tricity credits for such generation that is equal to the  
24 product obtained by multiplying—

1           (1) the qualified electricity generation of the  
2 generator during such calendar year; by

3           (2) the number that equals—

4                 (A) 1.0; less

5                 (B) the quotient obtained by dividing—

6                         (i) the average carbon intensity of the  
7 generating units of such generator for such  
8 calendar year, as determined in accordance  
9 with subsection (c); by

10                        (ii) 0.82.

11           (c) GENERAL RULES ON DETERMINING CARBON IN-  
12 TENSITY.—Notwithstanding any other provision of this  
13 section, the Secretary shall determine the carbon intensity  
14 of each generating unit of a generator. Such determination  
15 shall be made—

16           (1) using data and methods from the Air Emis-  
17 sion Measurement Center of the Environmental Pro-  
18 tection Agency for emission testing and monitoring,  
19 including—

20                 (A) continuous emission monitoring sys-  
21 tems; and

22                 (B) predictive emission monitoring sys-  
23 tems; and

24           (2) with respect to a determination of the car-  
25 bon intensity of any generating unit using qualified

1 renewable biomass or qualified low-carbon fuel, or  
2 generating qualified waste-to-energy, in consultation  
3 with—

4 (A) the Secretary of Agriculture; and

5 (B) the Secretary of the Interior.

6 (d) CARBON INTENSITY FOR CERTAIN CATEGORIES  
7 OF GENERATING UNITS.—

8 (1) GENERATING UNITS UTILIZING TECH-  
9 NOLOGIES WITHOUT DIRECT EMISSIONS.—The Sec-  
10 retary shall assign a carbon intensity of zero for any  
11 generating unit of a generator that does not produce  
12 direct emissions of any greenhouse gas in generating  
13 electric energy, including any generating unit that  
14 generates electric energy only through the use of  
15 solar, wind, ocean, current, wave, tidal, geothermal,  
16 nuclear energy, or hydropower technology (except as  
17 described under paragraph (3)).

18 (2) GENERATING UNITS UTILIZING TECH-  
19 NOLOGIES UTILIZING FOSSIL FUELS.—

20 (A) ACCOUNTING FOR UPSTREAM GREEN-  
21 HOUSE GAS EMISSIONS.—In determining the  
22 carbon intensity of each generating unit using  
23 fossil fuel, the Secretary shall utilize the best  
24 available science, including with respect to the  
25 measurement of low-frequency high-emission

1 events, including data from the detection of  
2 natural gas flaring from the satellite observa-  
3 tions of the National Oceanic and Atmospheric  
4 Administration, to account for—

5 (i) the carbon dioxide emissions of the  
6 generating unit; and

7 (ii)(I) the average amounts of carbon  
8 dioxide and methane emissions, in terms of  
9 carbon dioxide equivalent, that occur dur-  
10 ing extraction, flaring, processing, and  
11 transportation in the United States of the  
12 fossil fuel consumed by the generator; or

13 (II) with respect to a generator that  
14 the Secretary determines under subpara-  
15 graph (B) has demonstrated that the fossil  
16 fuel consumed by such generator is associ-  
17 ated with the release of smaller amounts of  
18 carbon dioxide and methane emissions  
19 than the amounts described in subclause  
20 (I), such smaller amounts.

21 (B) DETERMINATION.—

22 (i) IN GENERAL.—The Secretary may  
23 determine that a generator has dem-  
24 onstrated that the fossil fuel consumed by  
25 such generator is associated with the re-

1            lease of smaller amounts of carbon dioxide  
2            and methane emissions than the amounts  
3            described in subparagraph (A)(ii)(I) if the  
4            generator—

5                    (I) accounts for low-frequency,  
6                    high-emission events; and

7                    (II) uses direct measurements of  
8                    the applicable facilities, which may in-  
9                    clude measurements made in the  
10                   course of participation in a voluntary  
11                   program or public disclosure of the  
12                   quantified methane emission intensity  
13                   of the applicable facilities.

14            (ii) PUBLIC AVAILABILITY.—The in-  
15            formation provided to the Secretary by a  
16            generator to make a determination under  
17            this subparagraph shall be available to the  
18            public upon such determination.

19            (C) STANDARDS.—The Secretary shall pro-  
20            mulgate the standards for measurement nec-  
21            essary to implement subparagraph (A) not less  
22            than 2 years after the date of enactment of this  
23            title and shall update such standards every 5  
24            years thereafter, based on the best available  
25            science.



1           (3) HYDROPOWER UTILIZING A NEW RES-  
2           ERVOIR.—In determining the carbon intensity of  
3           each generating unit using hydropower associated  
4           with a reservoir constructed after the date of enact-  
5           ment of this Act, the Secretary shall account for the  
6           greenhouse gas emissions that can be attributed to  
7           the hydropower facility, including the applicable new  
8           reservoir.

9           (e) QUANTITY OF CREDITS ISSUED FOR CERTAIN  
10          CATEGORIES OF GENERATING UNITS.—

11           (1) QUALIFIED COMBINED HEAT AND POWER  
12          SYSTEMS.—

13           (A) IN GENERAL.—The Secretary shall  
14           issue to a generator generating zero-emission  
15           electricity during a calendar year using a gener-  
16           ating unit that is a qualified combined heat and  
17           power system a quantity of zero-emission elec-  
18           tricity credits for such generation that is equal  
19           to—

20                   (i) the product obtained by multi-  
21                   plying—

22                           (I) the number of megawatt-  
23                           hours of electric energy generated by  
24                           the qualified combined heat and power  
25                           system during such calendar year; by

1 (II) the number that equals—

2 (aa) 1.0; less

3 (bb) the quotient obtained

4 by dividing—

5 (AA) the carbon inten-

6 sity of the qualified com-

7 bined heat and power sys-

8 tem; by

9 (BB) 0.82; less

10 (ii) the product obtained by multi-

11 plying—

12 (I) the number of megawatt-

13 hours of electric energy generated by

14 the qualified combined heat and power

15 system that are consumed onsite dur-

16 ing such calendar year; by

17 (II) the average of the minimum

18 percentage of zero-emission electricity

19 (as defined in section 202(a)(5)) for

20 the calendar year for retail electricity

21 suppliers in the region of the gener-

22 ator, as determined by the Secretary.

23 (B) ADDITIONAL CREDITS.—In addition to

24 zero-emission electricity credits issued under

25 subparagraph (A), the Secretary shall issue to

1 a generator described in subparagraph (A) zero-  
2 emission electricity credits for greenhouse gas  
3 emissions avoided as a result of the use of the  
4 applicable qualified combined heat and power  
5 system, rather than a separate thermal source,  
6 to meet the thermal needs of the generator or  
7 one or more additional entities.

8 (C) APPLICABILITY.—This paragraph shall  
9 not apply with respect to a qualified combined  
10 heat and power system using qualified renew-  
11 able biomass.

12 (2) QUALIFIED RENEWABLE BIOMASS.—The  
13 Secretary shall issue to a generator generating zero-  
14 emission electricity during a calendar year using  
15 qualified renewable biomass a quantity of zero-emis-  
16 sion electricity credits for such generation that is  
17 equal to the product obtained by multiplying—

18 (A) the qualified electricity generation of  
19 the generator using qualified renewable biomass  
20 during such calendar year; by

21 (B) the average carbon intensity of the  
22 generating units of the generator that use  
23 qualified renewable biomass.

24 (3) QUALIFIED WASTE-TO-ENERGY.—The Sec-  
25 retary shall issue to a generator generating zero-

1 emission electricity during a calendar year that is  
2 qualified waste-to-energy a quantity of zero-emission  
3 electricity credits for such generation that is equal  
4 to the product obtained by multiplying—

5 (A) the qualified waste-to-energy of the  
6 generator that is qualified electricity generation  
7 during such calendar year; by

8 (B) the average carbon intensity of the  
9 generating units of the generator used to gen-  
10 erate qualified waste-to-energy.

11 (4) QUALIFIED LOW-CARBON FUELS.—

12 (A) IN GENERAL.—Except as provided in  
13 subparagraph (C), the Secretary shall issue to  
14 a generator generating zero-emission electricity  
15 during a calendar year using qualified low-car-  
16 bon fuels a quantity of zero-emission electricity  
17 credits for such generation that is equal to the  
18 product obtained by multiplying—

19 (i) the qualified electricity generation  
20 of the generator using qualified low-car-  
21 bon-fuels during such calendar year; by

22 (ii) the average carbon intensity of the  
23 generating units of the generator that use  
24 qualified low-carbon fuels.

1 (B) ADJUSTMENT FOR PRODUCTION.—In  
2 determining the carbon intensity of each gener-  
3 ating unit using a qualified low-carbon fuel, the  
4 Secretary shall account for the greenhouse gas  
5 emissions associated with the production of  
6 such qualified low-carbon fuel.

7 (C) NO DOUBLE-COUNTING.—The Sec-  
8 retary shall not issue zero-emission electricity  
9 credits for electric energy generated using a  
10 qualified low-carbon fuel that is generated from  
11 electric energy for which a generator is issued  
12 a zero-emission electricity credit under this  
13 title.

14 (5) CARBON CAPTURE, STORAGE, AND UTILIZA-  
15 TION.—

16 (A) DEFINITIONS.—In this paragraph, the  
17 term “qualified carbon oxide” has the meaning  
18 given the term in section 45Q of the Internal  
19 Revenue Code of 1986.

20 (B) QUANTITY OF CREDITS.—Except as  
21 otherwise provided in this section, the Secretary  
22 shall, with respect to a given calendar year,  
23 issue to a generator a quantity of zero-emission  
24 electricity credits for the capture and storage or  
25 utilization of qualified carbon oxide from a

1 waste stream of the generator that is equal to  
2 the product obtained by multiplying—

3 (i) the qualified electricity generation  
4 of the generator during such calendar year;  
5 by

6 (ii) the difference between—

7 (I) 1.0; and

8 (II) the quotient obtained by di-  
9 viding—

10 (aa) the carbon intensity of  
11 the generator; by

12 (bb) 0.82.

13 (6) DIRECT AIR CAPTURE OF CARBON DIOX-  
14 IDE.—

15 (A) QUANTITY OF CREDITS.—The Sec-  
16 retary shall issue to an entity that captures car-  
17 bon dioxide from the atmosphere and stores or  
18 utilizes such carbon dioxide 1 zero-emission  
19 electricity credit for every 0.82 metric tons of  
20 carbon dioxide equivalent that is captured and  
21 stored or utilized.

22 (B) SPECIAL RULES.—

23 (i) REGULATIONS.—Subject to clause

24 (ii), not later than 1 year after the date of

1 enactment of this Act, the Secretary shall  
2 promulgate regulations establishing—

3 (I) the conditions under which  
4 carbon dioxide may be safely and per-  
5 manently stored for purposes of  
6 issuing zero-emission electricity cred-  
7 its under this paragraph;

8 (II) the methods and processes  
9 by which carbon dioxide may be uti-  
10 lized in a manner that ensures the re-  
11 moval of the carbon dioxide safely and  
12 permanently from the atmosphere, in-  
13 cluding utilization in the production of  
14 substances, such as plastics and  
15 chemicals; and

16 (III) requirements to account, in  
17 issuing zero-emission electricity cred-  
18 its under this section, for the risk that  
19 some fraction of the carbon dioxide in-  
20 tended for permanent storage or utili-  
21 zation may nevertheless be emitted  
22 into the atmosphere.

23 (ii) EXISTING REQUIREMENTS.—In  
24 promulgating regulations pursuant to this  
25 subparagraph, the Secretary shall incor-

1           porate any existing requirements for the  
2           permanent geologic storage of carbon diox-  
3           ide, including any requirements promul-  
4           gated under section 45Q of the Internal  
5           Revenue Code of 1986.

6           (f) MAXIMUM QUANTITY OF CREDITS.—Except as  
7           provided under subsection (e)(1), the total quantity of  
8           zero-emission electricity credits issued under this section  
9           to a generator for a calendar year shall not exceed the  
10          number of megawatt-hours of the qualified electricity gen-  
11          eration of the generator for the calendar year.

12          (g) NO NEGATIVE CREDITS.—Notwithstanding any  
13          other provision of this title, the Secretary shall not issue  
14          a negative quantity of zero-emission electricity credits to  
15          any generator.

16          (h) FACILITIES OUTSIDE THE UNITED STATES.—  
17          With respect to electricity generated by a facility or gener-  
18          ating unit that is located outside of the United States,  
19          a zero-emission electricity credit may be issued only with  
20          respect to electricity that is sold for resale in the United  
21          States.

22          (i) CONTRACTS.—A zero-emission electricity credit  
23          issued for electricity that is—

24                  (1) sold for resale under a contract in effect on  
25          the date of enactment of this title shall be issued to



1 the purchasing retail electricity supplier in propor-  
2 tion to the zero-emission electricity purchased by  
3 such retail electricity supplier under the contract,  
4 unless otherwise provided by the contract; and

5 (2) sold for resale under a contract in which a  
6 generating unit is not specified, shall be issued to  
7 the purchasing retail electricity supplier in propor-  
8 tion to the ratio of zero-emission electricity genera-  
9 tion from the generator making such sale for resale.

10 (j) FEDERAL POWER MARKETING ADMINISTRA-  
11 TION.—A zero-emission electricity credit issued for elec-  
12 tricity that is generated by a Federal Power Marketing  
13 Administration shall be conveyed to the retail electricity  
14 supplier that is purchasing the electricity.

15 (k) RECIPIENTS OF ACCELERATION INVESTMENT  
16 CREDITS.—A qualified zero-emission electricity taxpayer  
17 that receives a zero-emission electricity acceleration invest-  
18 ment credit for a calendar year under section 45U of the  
19 Internal Revenue Code of 1986, as added by section 301  
20 of this Act, shall not be issued any zero-emission elec-  
21 tricity credits under this section after such calendar year.

22 (l) RECIPIENTS OF ACCELERATION GRANTS.—An eli-  
23 gible electricity provider that receives a grant during a cal-  
24 endar year under section 302 of this Act shall not be

1 issued any zero-emission electricity credits under this sec-  
2 tion after such calendar year.

3 **SEC. 205. CARBON MITIGATION FUND.**

4 (a) CARBON MITIGATION FUND.—

5 (1) CREATION OF FUND.—There is hereby es-  
6 tablished a trust fund, to be known as the “Carbon  
7 Mitigation Fund”, consisting of such amounts as  
8 may be appropriated to such fund as provided in  
9 this section.

10 (2) ADMINISTRATION.—The Carbon Mitigation  
11 Fund shall be administered by the Secretary.

12 (3) TRANSFERS TO TRUST FUND.—There are  
13 hereby appropriated to the Carbon Mitigation Fund  
14 each year amounts equal to the sum of the amounts  
15 that are—

16 (A) attributable to alternative compliance  
17 payments made pursuant to section 202(c);

18 (B) the alternative compliance payments  
19 that would have been made by any petitioners  
20 under section 202(d) but for a determination of  
21 inadequate availability of technology made by  
22 the Secretary under section 202(d); and

23 (C) collected as a civil penalty under sec-  
24 tion 209.

1           (4) EXPENDITURES.—Amounts in the Carbon  
2 Mitigation Fund shall be available without further  
3 appropriation or fiscal year limitation to carry out  
4 the program under subsection (b).

5           (b) PROGRAM.—

6           (1) IN GENERAL.—The Secretary shall carry  
7 out a program to award funds to entities to carry  
8 out activities in States that avoid emissions of green-  
9 house gases or remove carbon dioxide from the at-  
10 mosphere.

11           (2) ACTIVITIES.—Activities for which the Sec-  
12 retary may award funds under the program carried  
13 out pursuant to this subsection include—

14                   (A) improvement to the energy efficiency  
15 of existing facilities and devices;

16                   (B) the replacement of natural gas space  
17 heaters, natural gas water heaters, and natural  
18 gas stoves, with electric appliances;

19                   (C) the replacement of fossil fuel-powered  
20 vehicles owned by State and local agencies with  
21 electric vehicles or other low-carbon fuel vehi-  
22 cles;

23                   (D) the replacement of fossil fuel-powered  
24 ground airport and seaport vehicles with electric  
25 vehicles or other low-carbon fuel vehicles;

1 (E) installation of fast charging stations  
2 for electric vehicles along highways and other  
3 public roads in urban areas and rural areas;

4 (F) beneficial electrification-related reduc-  
5 tions not otherwise identified in this paragraph;

6 (G) direct air capture and permanent se-  
7 questration or utilization of carbon dioxide; and

8 (H) any activity that is endorsed by a gen-  
9 erator or a retail electricity supplier that avoids  
10 emissions of greenhouse gases or removes car-  
11 bon dioxide from the atmosphere.

12 (3) EXCLUSIONS.—The Secretary may not  
13 award funds to an entity under the program carried  
14 out pursuant to this subsection for any activity for  
15 which the entity has been issued a zero-emission  
16 electricity credit or received a deduction of mega-  
17 watt-hours in the calculation under 202(a)(3) to ac-  
18 count for beneficial electrification-related reductions.

19 (4) CRITERIA.—The Secretary may only award  
20 funds under the program carried out pursuant to  
21 this subsection for an activity for which the Sec-  
22 retary determines that—

23 (A) the amount of carbon dioxide emis-  
24 sions avoided or removed from the atmosphere

1 by the activity will be adequately confirmed  
2 through monitoring, reporting and verification;

3 (B) the risk that some amount of the car-  
4 bon dioxide that is removed from the atmos-  
5 phere by the activity may reenter the atmos-  
6 phere at a later date is adequately reflected  
7 through a discounting of the amount described  
8 in paragraph (5)(C)(ii);

9 (C) the risk that some amount of the  
10 greenhouse gases, the emission of which is  
11 avoided by the activity, may enter the atmos-  
12 phere at a later date is adequately reflected  
13 through a discounting of the amount described  
14 in paragraph (5)(C)(i);

15 (D) the risk that the activity may directly  
16 or indirectly increase the release of greenhouse  
17 gases from another location has been ade-  
18 quately addressed;

19 (E) the activity is not required, or being  
20 fully supported financially by, a Federal, State,  
21 or local law, program, or activity; and

22 (F) if the activity involves land use, the ac-  
23 tivity aligns with the Sustainable Development  
24 Goals of the United Nations, including being  
25 consistent with the conservation of biological di-

1           iversity and natural ecosystems (including for-  
2           ests and grasslands), and shall maintain eco-  
3           system services and enhance other social and  
4           environmental benefits.

5           (5) PROPOSALS.—In order to qualify for an  
6           award of funds under this subsection, an entity shall  
7           submit to the Secretary a proposal that—

8                   (A) describes the activity to be carried out  
9                   with the award of funds in a manner specified  
10                  by the Secretary;

11                  (B) identifies the amount of money for  
12                  which the entity is applying;

13                  (C) identifies the amount, to be measured  
14                  in one-year increments, of—

15                          (i) greenhouse gas emissions to be  
16                          avoided by the activity, measured in terms  
17                          of carbon dioxide equivalent; or

18                          (ii) carbon dioxide to be removed from  
19                          the atmosphere by the activity, measured  
20                          in metric tons;

21                  (D) identifies the bid amount, expressed as  
22                  dollars per metric ton, which shall be the  
23                  quotient obtained by dividing the amount iden-  
24                  tified under subparagraph (B) by the amount  
25                  identified under subparagraph (C);

1 (E) provides any information required by  
2 the Secretary in order to make a determination  
3 described in paragraph (4); and

4 (F) provides any other certifications the  
5 Secretary determines appropriate.

6 (6) DEADLINES.—

7 (A) SOLICITATION.—Not later than Feb-  
8 ruary 1, 2024, and each February 1 thereafter,  
9 the Secretary shall solicit proposals for activi-  
10 ties described in paragraph (1) for which the  
11 Secretary may award funds under the program  
12 carried out pursuant to this subsection.

13 (B) IDENTIFICATION.—Not later than  
14 June 1, 2024, and each June 1 thereafter, the  
15 Secretary shall identify proposals that have  
16 been submitted by March 1 of such calendar  
17 year for activities described in paragraph (1)  
18 that qualify for an award of funds under the  
19 program carried out pursuant to this sub-  
20 section.

21 (C) AWARD OF FUNDS.—Not later than  
22 August 1, 2024, and each August 1 thereafter,  
23 the Secretary shall award to entities funds  
24 available in the Carbon Mitigation Fund estab-  
25 lished under section 9512 of the Internal Rev-

1           enue Code of 1986 for activities described in  
2           proposals identified under subparagraph (B).

3           (7) AWARDS TO MOST COST-EFFECTIVE ACTIVI-  
4           TIES.—The Secretary shall award funds to entities  
5           for activities described in proposals identified under  
6           paragraph (6)(B)—

7                   (A) beginning by awarding funds to the  
8                   entity submitting such a proposal with the low-  
9                   est bid amount identified pursuant to para-  
10                  graph (5)(D); and

11                  (B) then awarding funds to entities se-  
12                  quentially by entity submitting such a proposal  
13                  with the next lowest bid amount so identified  
14                  until all funds are awarded.

15           (c) CONSULTATION.—The Secretary shall consult  
16           with the Secretary of the Interior, the Secretary of Agri-  
17           culture, and the Administrator of the Environment Pro-  
18           tection Agency in promulgating regulations to measure,  
19           monitor, and verify any natural sequestration activities  
20           awarded under this section.

21   **SEC. 206. STATE PROGRAMS.**

22           (a) SAVINGS PROVISION.—

23                   (1) IN GENERAL.—Except as provided in para-  
24                   graph (2) and subject to subsection (b), nothing in  
25                   this title affects the authority of a State or a polit-



1 ical subdivision of a State to adopt or enforce any  
2 law or regulation relating to—

3 (A) clean energy or renewable energy; or

4 (B) the regulation of a retail electricity  
5 supplier.

6 (2) FEDERAL LAW.—Except as otherwise pro-  
7 vided in this section, no law or regulation of a State  
8 or a political subdivision of a State may relieve a re-  
9 tail electricity supplier from compliance with an ap-  
10 plicable requirement of this title.

11 (b) COORDINATION.—The Secretary, in consultation  
12 with States that have clean energy programs or renewable  
13 energy programs in effect, shall facilitate, to the maximum  
14 extent practicable, coordination between the implementa-  
15 tion of this Act and the relevant State clean energy pro-  
16 gram or renewable energy program.

17 (c) MORE STRINGENT STATE CLEAN ENERGY PRO-  
18 GRAMS.—

19 (1) DETERMINATION.—

20 (A) IN GENERAL.—The Secretary, in con-  
21 sultation with States that have State clean en-  
22 ergy programs or renewable energy programs in  
23 effect, shall determine whether each such State  
24 is implementing a more stringent State clean  
25 energy program.

1 (B) DEADLINES.—The Secretary shall  
2 make a determination under subparagraph  
3 (A)—

4 (i) not later than January 1, 2021,  
5 with respect to a State clean energy or re-  
6 newable energy program in effect on the  
7 date of enactment of this Act, and every 5  
8 years thereafter; and

9 (ii) not later than 6 months after the  
10 date of the enactment by a State, after the  
11 date of enactment of this Act, of a new or  
12 modified existing clean energy or renewable  
13 energy program, and every 5 years there-  
14 after.

15 (C) PERIOD.—A determination under this  
16 paragraph shall be effective until the earlier  
17 of—

18 (i) the date that is 5 years after the  
19 date of the determination; or

20 (ii) the date on which the Secretary  
21 makes a subsequent determination under  
22 this paragraph with respect to the applica-  
23 ble State program.

24 (2) COMPLIANCE.—If the Secretary determines,  
25 under paragraph (1), that a State has a more strin-

1       gent State clean energy program, a retail electricity  
2       supplier that is subject to and in compliance with  
3       such more stringent State clean energy program  
4       shall be deemed to be in compliance with the re-  
5       quirements of this title for the period during which  
6       the determination is effective.

7               (3) PROHIBITION AGAINST DOUBLE-COUNT-  
8       ING.—The Secretary, in consultation with States,  
9       shall develop a protocol to ensure that a zero-emis-  
10      sion electricity credit may not be issued under this  
11      title with respect to an amount of electric energy for  
12      which one or more State clean energy credits are  
13      issued under, and used for compliance with, a more  
14      stringent State clean energy program.

15              (d) QUALIFIED ELECTRICITY GENERATION ELIGI-  
16      BLE IN BOTH STATE AND FEDERAL PROGRAMS.—

17              (1) ISSUANCE OF CREDIT.—In a State that  
18      does not have a more stringent State clean energy  
19      program, 1 megawatt-hour of zero-emission elec-  
20      tricity is eligible to be issued both a State clean en-  
21      ergy credit and a zero-emission electricity credit pur-  
22      suant to this title.

23              (2) RETIREMENT OF STATE CREDITS.—Retire-  
24      ment of a State clean energy credit for a compliance  
25      with a State law in a State that does not have a

1 more stringent State clean energy program shall not  
2 prevent a retail electricity supplier from submitting  
3 a zero-emission electricity credit issued for the same  
4 megawatt-hour of zero-emission electricity for com-  
5 pliance with this title.

6 (3) SUBMISSION OF FEDERAL CREDITS.—Sub-  
7 mission of a zero-emission electricity credit for com-  
8 pliance with this title shall not prevent a retail elec-  
9 tricity supplier from retiring a State clean energy  
10 credit issued for the same megawatt-hour of quali-  
11 fied electricity generation for compliance with a  
12 State law.

13 (e) DEFINITIONS.—In this section:

14 (1) STATE CLEAN ENERGY CREDIT.—The term  
15 “State clean energy credit” means a certificate cor-  
16 responding to the electricity generated from renew-  
17 able or other zero-emission electricity sources that is  
18 issued under a law enacted by a State.

19 (2) MORE STRINGENT STATE CLEAN ENERGY  
20 PROGRAM.—The term “more stringent State clean  
21 energy program” means a law of a State that—

22 (A) is determined by the Secretary to re-  
23 quire each retail electricity supplier in the  
24 State, during the period described under sub-  
25 section (c)(1)(C), to—

1 (i) obtain State clean energy credits  
2 representing an aggregate number of  
3 megawatt-hours of zero-emission electricity  
4 that is larger than the number of zero-  
5 emission electricity credits the retail elec-  
6 tricity supplier would otherwise be required  
7 to submit under section 202; or

8 (ii) generate a percentage of zero-  
9 emission electricity that is greater than the  
10 percentage that would be required of the  
11 retail electricity supplier under section  
12 202; and

13 (B) includes compliance mechanisms, in-  
14 cluding the imposition of penalties, that are at  
15 least as effective in enforcing compliance as the  
16 system of enforcement under this title.

17 **SEC. 207. REPORT TO CONGRESS.**

18 Not later than January 1, 2040, the Secretary shall  
19 submit a report to Congress with an evaluation and a fore-  
20 cast of the remaining barriers to achieving generation of  
21 electric energy with no emissions of carbon dioxide by cal-  
22 endar year 2050.

23 **SEC. 208. INFORMATION COLLECTION.**

24 The Secretary may require any retail electricity sup-  
25 plier, generator, or other entity that the Secretary deter-

1 mines appropriate, to submit to the Secretary any infor-  
2 mation the Secretary determines to be appropriate to  
3 carry out this title.

4 **SEC. 209. CIVIL PENALTIES.**

5 (a) IN GENERAL.—Subject to subsection (b)—

6 (1) a retail electricity supplier that fails to meet  
7 the requirements of section 202 shall be subject to  
8 a civil penalty in an amount equal to the product ob-  
9 tained by multiplying—

10 (A) the aggregate quantity of zero-emis-  
11 sion electricity credits that the retail electricity  
12 supplier failed to submit for the calendar year  
13 to comply with section 202; by

14 (B) 300 percent of the amount of alter-  
15 native compliance payment for the calendar  
16 year, as determined under section 202(c); and

17 (2) an entity required to submit information  
18 pursuant to section 208 that violates such section by  
19 failing to submit the information, or submitting false  
20 or misleading information, shall be subject to a civil  
21 penalty of \$25,000 for each day during which such  
22 violation continues.

23 (b) WAIVERS AND MITIGATION.—

24 (1) FORCE MAJEURE.—The Secretary may  
25 mitigate or waive a civil penalty under subsection (a)

1 if the applicable retail electricity supplier or other  
2 entity was unable to comply with an applicable re-  
3 quirement for reasons outside of the reasonable con-  
4 trol of the retail electricity supplier or other entity.

5 (2) REDUCTION FOR STATE PENALTIES.—The  
6 Secretary shall reduce the amount of a penalty de-  
7 termined under subsection (a) by the amount paid  
8 by the applicable retail electricity supplier to a State  
9 for failure to comply with the requirement of a State  
10 renewable energy program, if the State requirement  
11 is more stringent than the applicable requirement of  
12 this title.

13 (c) PROCEDURE FOR ASSESSING PENALTY.—The  
14 Secretary shall assess a civil penalty under this section  
15 in accordance with section 333(d) of the Energy Policy  
16 and Conservation Act (42 U.S.C. 6303(d)).

17 **SEC. 210. REGULATIONS.**

18 (a) IN GENERAL.—Except as otherwise provided in  
19 this title, not later than 2 years after the date of enact-  
20 ment of this title, the Secretary shall promulgate regula-  
21 tions to implement this title.

22 (b) CONSULTATION.—The Secretary shall consult  
23 with the Administrator of the Environmental Protection  
24 Agency in promulgating the regulations to implement this  
25 title.

## 1     **Subtitle B—Methane Regulation**

### 2     **SEC. 211. METHANE REGULATION.**

3           (a) NATIONAL GOAL.—The goal of this section is to  
4 reduce steadily the quantity of methane emissions from  
5 the oil and natural gas sector such that the quantity of  
6 methane emissions in calendar year 2030 from the oil and  
7 natural gas sector is at least 90 percent below the quantity  
8 of methane emissions in calendar year 2012 from such  
9 sector.

10          (b) MAINTAINING FINAL NSPS RULE.—The Admin-  
11 istrator may not repeal, replace, or amend the final rule  
12 entitled “Oil and Natural Gas Sector: Emission Standards  
13 for New, Reconstructed, and Modified Sources” as pub-  
14 lished by the Environmental Protection Agency in the  
15 Federal Register on June 3, 2016 (81 Fed. Reg. 35,824  
16 et seq.), until regulations are promulgated pursuant to  
17 subsection (c).

18          (c) REGULATIONS TO MEET THE NATIONAL GOAL.—

19               (1) MEETING THE NATIONAL GOAL.—

20                       (A) DEADLINE.—Not later than December  
21                       31, 2022, the Administrator shall promulgate  
22                       final regulations under section 111 of the Clean  
23                       Air Act (42 U.S.C. 7411) to limit methane  
24                       emissions from the oil and natural gas sector to



1 achieve the national goal specified in subsection  
2 (a).

3 (B) CONTENTS.—The regulations required  
4 by subparagraph (A) shall provide for the es-  
5 tablishment, implementation, and enforcement  
6 of standards of performance for limiting emis-  
7 sions of methane from new sources under sec-  
8 tion 111(b) of the Clean Air Act (42 U.S.C.  
9 7411(b)), and guidelines for States to establish,  
10 implement, and enforce standards of perform-  
11 ance for existing sources under section 111(d)  
12 of the Clean Air Act (42 U.S.C. 7411(d)). Such  
13 standards of performance shall—

14 (i) require the application of the best  
15 system of emission reduction to include ap-  
16 plication of the best system of venting and  
17 leakage reduction for new and existing nat-  
18 ural gas transmission and distribution  
19 pipelines; and

20 (ii) apply to new sources, and existing  
21 sources, including—

22 (I) new sources, and existing  
23 sources, with equipment that handles  
24 liquefied natural gas;

1 (II) new and existing offshore pe-  
2 troleum and natural gas production  
3 facilities; and

4 (III) other petroleum and natural  
5 gas facilities, as determined by the  
6 Administrator.

7 (2) COVERED SOURCES.—The regulations pro-  
8 mulgated pursuant to this subsection shall apply to  
9 new sources and existing sources of methane within  
10 every segment of the oil and natural gas sector.

11 (d) PUBLIC HEALTH AND WELFARE.—For purposes  
12 of section 111 of the Clean Air Act (42 U.S.C. 7411),  
13 methane emissions from the oil and gas sector are deemed  
14 to reasonably be anticipated to endanger public health or  
15 welfare.

16 (e) DEFINITIONS.—In this section:

17 (1) ADMINISTRATOR.—The term “Adminis-  
18 trator” means the Administrator of the Environ-  
19 mental Protection Agency.

20 (2) EXISTING SOURCE; NEW SOURCE; STAND-  
21 ARD OF PERFORMANCE.—The terms “existing  
22 source”, “new source”, and “standard of perform-  
23 ance”, have the meaning given such terms in section  
24 111(a) of the Clean Air Act (42 U.S.C. 7411(a)).

1 **TITLE III—INCENTIVES FOR THE**  
2 **ACCELERATED DEPLOYMENT**  
3 **OF 100-PERCENT ZERO-EMIS-**  
4 **SION ELECTRICITY SYSTEM**

5 **SEC. 300. PURPOSE.**

6 The purpose of this title is to provide support for any  
7 given power company to accelerate the deployment of a  
8 100-percent zero-emission electricity generation system as  
9 early as possible before 2050.

10 **SEC. 301. ZERO-EMISSION ELECTRICITY ACCELERATION IN-**  
11 **VESTMENT TAX CREDIT.**

12 (a) IN GENERAL.—Subpart D of part IV of sub-  
13 chapter A of chapter 1 of the Internal Revenue Code of  
14 1986 is amended by adding at the end the following new  
15 section:

16 **“SEC. 45U. ZERO-EMISSION ELECTRICITY ACCELERATION**  
17 **INVESTMENT CREDIT.**

18 “(a) IN GENERAL.—For purposes of section 38, in  
19 the case of a taxpayer who is a qualified zero-emission  
20 electricity taxpayer, the zero-emission electricity accelera-  
21 tion investment credit shall be the applicable percentage  
22 of the cost of a qualified zero-emission electricity gener-  
23 ating unit.

24 “(b) DEFINITIONS.—In this section;

1           “(1) APPLICABLE PERCENTAGE.—The term  
2           ‘applicable percentage’ means—

3                   “(A) 50 percent in the case of a qualified  
4                   zero-emission electricity generating unit that  
5                   begins to generate electricity before December  
6                   31, 2025,

7                   “(B) 40 percent in the case of a qualified  
8                   zero-emission electricity generating unit that  
9                   begins to generate electricity before December  
10                  31, 2030, and

11                  “(C) 30 percent in the case of a qualified  
12                  zero-emission electricity generating unit that  
13                  begins to generate electricity before December  
14                  31, 2037.

15           “(2) GENERATING UNIT.—The term ‘generating  
16           unit’ has the meaning given such term in section  
17           201 of the Clean Energy Innovation and Deploy-  
18           ment Act of 2020.

19           “(3) QUALIFIED ZERO-EMISSION ELECTRICITY  
20           GENERATING UNIT.—The term ‘qualified zero-emis-  
21           sion electricity generating unit’ means a generating  
22           unit—

23                   “(A) that is placed into service after the  
24                   date of enactment of this section, and

1           “(B) the operation of which does not result  
2           in the release of carbon dioxide into the atmos-  
3           phere.

4           “(4) QUALIFIED ZERO-EMISSION ELECTRICITY  
5           TAXPAYER.—The term ‘qualified zero-emission elec-  
6           tricity taxpayer’ means, for a taxable year, a tax-  
7           payer who—

8           “(A) does not own a generating unit that  
9           emits carbon dioxide at any point during such  
10          taxable year, and

11          “(B) for such taxable year, owns non-emit-  
12          ting electricity generating units with a gener-  
13          ating capacity that is equal to or greater than  
14          the annual average generating capacity of gen-  
15          erating units owned by such taxpayer during  
16          the 5-year period ending on the date of the en-  
17          actment of this section.

18          “(c) TRANSFERABILITY.—

19          “(1) IN GENERAL.—If the qualified zero-emis-  
20          sion electricity taxpayer elects to transfer all (or any  
21          portion specified in the election) of the credit deter-  
22          mined under this section for any taxable year with  
23          respect to any qualified facility to an eligible project  
24          partner for a specified period, then, the eligible  
25          project partner specified in such election (and not

1 the taxpayer) shall be treated for purposes of this  
2 title with respect to such credit (or such portion  
3 thereof) as the person producing and selling the elec-  
4 tricity to which such credit (or portion thereof) re-  
5 lates.

6 “(2) DEDUCTION FOR PAYMENTS IN CONNEC-  
7 TION WITH TRANSFER.—There shall be allowed as a  
8 deduction under part VI of subchapter B an amount  
9 equal to the amount paid by a taxpayer as consider-  
10 ation for a transfer described in paragraph (1).

11 “(3) ELIGIBLE PROJECT PARTNER.—

12 “(A) For purposes of this subsection, the  
13 term ‘eligible project partner’ means, with re-  
14 spect to any qualified facility, any person who—

15 “(i) has an ownership interest in such  
16 qualified facility,

17 “(ii) provided equipment for or serv-  
18 ices in the construction of such qualified  
19 facility,

20 “(iii) provides electric transmission or  
21 distribution services for such qualified fa-  
22 cility,

23 “(iv) purchases electricity from such  
24 qualified facility pursuant to a contract, or

1                   “(v) provides financing for such quali-  
2                   fied facility.

3                   “(B) For purposes of subparagraph (A)(v),  
4                   any amount paid as consideration for a transfer  
5                   described in paragraph (1) shall not be treated  
6                   as financing of a qualified facility.

7                   “(4) TAXABLE YEAR IN WHICH CREDIT TAKEN  
8                   INTO ACCOUNT.—In the case of any credit (or por-  
9                   tion thereof) with respect to which an election is  
10                  made under paragraph (1), such credit shall be  
11                  taken into account in the first taxable year of the el-  
12                  igible project partner ending with, or after, the elect-  
13                  ing taxpayer’s taxable year with respect to which the  
14                  credit was determined.

15                  “(5) LIMITATIONS ON ELECTION.—

16                  “(A) TIME FOR ELECTION.—An election  
17                  under this subsection to transfer any portion of  
18                  the credit allowed under this section shall be  
19                  made not later than the due date for the return  
20                  of tax for the electing taxpayer’s taxable year  
21                  with respect to which the credit was deter-  
22                  mined.

23                  “(B) NO FURTHER TRANSFERS.—No elec-  
24                  tion may be made under this subsection by a  
25                  taxpayer with respect to any portion of the

1 credit allowed under this section which has been  
2 previously transferred to such taxpayer under  
3 this paragraph.

4 “(C) TREATMENT OF TRANSFER UNDER  
5 PRIVATE USE RULES.—For purposes of section  
6 141(b)(1), any benefit derived by an eligible  
7 project partner in connection with an election  
8 under this subsection shall not be taken into ac-  
9 count as a private business use.

10 “(D) ADDITIONAL ELECTION REQUIRE-  
11 MENTS.—The Secretary may prescribe such  
12 regulations as may be appropriate to carry out  
13 the purposes of this subsection, including—

14 “(i) rules for determining which per-  
15 sons are eligible project partners with re-  
16 spect to any energy property, and

17 “(ii) requiring information to be in-  
18 cluded in an election under paragraph (1)  
19 or imposing additional reporting require-  
20 ments.

21 “(E) QUALIFIED FACILITY.—For purposes  
22 of this section, the term ‘qualified facility’ has  
23 the meaning given in section 45(d).

24 “(d) CREDIT RECAPTURE.—If a taxpayer who has  
25 been allowed a credit under this section for any taxable



1 year ceases, in any subsequent taxable year, to be a quali-  
2 fied zero-emission electricity taxpayer, such taxpayer's tax  
3 under this chapter for such subsequent taxable year shall  
4 be increased by the amount of any credit or credits pre-  
5 viously allocated to such taxpayer under this section (and  
6 not previously recaptured under this subsection).

7       “(e) TERMINATION.—This section shall apply to tax-  
8 able years ending before January 1, 2050.”.

9       (b) CREDIT MADE PART OF GENERAL BUSINESS  
10 CREDIT.—Subsection (b) of section 38 of the Internal  
11 Revenue Code of 1986 is amended by striking “plus” at  
12 the end of paragraph (32), by striking the period at the  
13 end of paragraph (33) and inserting “, plus”, and by add-  
14 ing at the end the following new paragraph:

15               “(34) the zero-emission electricity acceleration  
16 investment credit determined under section 45U.”.

17       (c) CLERICAL AMENDMENT.—The table of sections  
18 for subpart D of part IV of subchapter A of chapter 1  
19 of such Code is amended by adding at the end the fol-  
20 lowing new item:

“Sec. 45U. Zero-emission electricity acceleration investment credit.”.

21       (d) EFFECTIVE DATE.—The amendments made by  
22 this section shall apply to taxable years beginning after  
23 the date of the enactment of this Act.

1 **SEC. 302. ZERO-EMISSION ELECTRICITY ACCELERATION**  
2 **GRANTS.**

3 (a) IN GENERAL.—Upon application, the Secretary  
4 of Energy shall, subject to the requirements of this section  
5 and the availability of appropriations for such purpose,  
6 provide a grant in an amount specified under subsection  
7 (b) to an eligible electricity provider that—

8 (1) permanently retires every existing carbon-  
9 emitting generating unit owned by the eligible elec-  
10 tricity provider as of the date that the applicable  
11 percentage for the grant begins to apply under sub-  
12 section (b)(2); and

13 (2) places into service one or more qualified  
14 zero-emission electricity generating units that re-  
15 place the generation capacity of the carbon-emitting  
16 generating units described in paragraph (1) in suffi-  
17 cient amounts to satisfy the condition specified in  
18 subsection (c).

19 (b) GRANT AMOUNT.—

20 (1) IN GENERAL.—The amount of the grant  
21 under subsection (a) with respect to any qualified  
22 zero-emission electricity generating unit shall be the  
23 applicable percentage of the cost of such qualified  
24 zero-emission electricity generating unit.

1           (2) APPLICABLE PERCENTAGE.—For purposes  
2 of paragraph (1), the term “applicable percentage”  
3 means—

4           (A) 50 percent in the case of a qualified  
5 zero-emission electricity generating unit that  
6 begins to generate electricity before December  
7 31, 2025;

8           (B) 40 percent in the case of a qualified  
9 zero-emission electricity generating unit that  
10 begins to generate electricity before December  
11 31, 2030; and

12           (C) 30 percent in the case of a qualified  
13 zero-emission electricity generating unit that  
14 begins to generate electricity before December  
15 31, 2037.

16       (c) CONDITIONS FOR THE GRANT.—No grant shall  
17 be made under this section unless the Secretary of Energy  
18 determines that the eligible electricity provider, as of the  
19 date that the applicable percentage for the grant begins  
20 to apply under subsection (b)(2), owns generating units  
21 that have an aggregate generation capacity that is not less  
22 than the annualized amount of generation capacity that  
23 is owned by such eligible electricity provider during the  
24 5-year period ending on the date of the enactment of this  
25 section.

1 (d) TIME FOR PAYMENT OF GRANT.—The Secretary  
2 of Energy shall make payment of any grant under sub-  
3 section (a) during the 60-day period beginning on the later  
4 of—

5 (1) the date of the application for such grant;

6 or

7 (2) the date the qualified zero-emission elec-  
8 tricity generating units described in subsection  
9 (a)(2) for which the grant is being made are placed  
10 into service.

11 (e) APPLICATION OF CERTAIN RULES.—In making  
12 grants under this section, the Secretary of Energy shall  
13 apply rules similar to the rules of section 50 of the Inter-  
14 nal Revenue Code of 1986 with the exception of section  
15 50(b)(3) and section 50(b)(4) for an entity described in  
16 section 50(b)(4)(A)(i). In applying such rules, if an eligi-  
17 ble electricity provider acquires a carbon-emitting gener-  
18 ating unit after a grant is made to the eligible electricity  
19 provider, the Secretary shall provide for the recapture of  
20 the appropriate percentage of the grant amount in such  
21 manner as the Secretary determines appropriate.

22 (f) DEFINITIONS.—For purposes of this section:

23 (1) CARBON-EMITTING GENERATING UNIT.—

24 The term “carbon-emitting generating unit” means

1 a generating unit the operation of which results in  
2 the release of carbon dioxide to the atmosphere.

3 (2) ELIGIBLE ELECTRICITY PROVIDER.—The  
4 term “eligible electricity provider” means an entity  
5 in the United States that—

6 (A) owns one or more generating units;  
7 and

8 (B) sells the electricity generated by such  
9 generating units.

10 (3) GENERATING UNIT.—The term “generating  
11 unit” has the meaning given such term in section  
12 201 of the Clean Energy Innovation and Deploy-  
13 ment Act of 2020.

14 (4) QUALIFIED ZERO-EMISSION ELECTRICITY  
15 GENERATING UNIT.—The term “qualified zero-emis-  
16 sion electricity generating unit” means a generating  
17 unit—

18 (A) that is placed into service after the  
19 date of enactment of this section; and

20 (B) the operation of which does not result  
21 in the release of carbon dioxide into the atmos-  
22 phere.

1     **TITLE IV—LOW-INCOME RATE-**  
2                   **PAYER PROTECTION**

3     **SEC. 400. PURPOSE.**

4           The purpose of this title is to provide low-income resi-  
5     dents technical and financial assistance to help reduce en-  
6     ergy bills, including by making homes more energy effi-  
7     cient.

8     **SEC. 401. WEATHERIZATION ASSISTANCE PROGRAM.**

9           (a) REAUTHORIZATION OF WEATHERIZATION AS-  
10     SISTANCE PROGRAM.—Section 422 of the Energy Con-  
11     servation and Production Act (42 U.S.C. 6872) is amend-  
12     ed by striking paragraphs (1) through (5) and inserting  
13     the following:

14                   “(1) \$350,000,000 for fiscal year 2021;

15                   “(2) \$500,000,000 for fiscal year 2022;

16                   “(3) \$650,000,000 for fiscal year 2023;

17                   “(4) \$800,000,000 for fiscal year 2024; and

18                   “(5) \$1,000,000,000 for each of fiscal years  
19     2025 through 2030.”.

20           (b) MODERNIZING THE DEFINITION OF WEATHER-  
21     IZATION MATERIALS.—Section 412(9)(J) of the Energy  
22     Conservation and Production Act (42 U.S.C. 6862(9)(J))  
23     is amended—

1           (1) by inserting “, including renewable energy  
2 technologies and other advanced technologies,” after  
3 “devices or technologies”; and

4           (2) by striking “, after consulting with the Sec-  
5 retary of Housing and Urban Development, the Sec-  
6 retary of Agriculture, and the Director of the Com-  
7 munity Services Administration”.

8           (c) CONSIDERATION OF HEALTH BENEFITS.—Sec-  
9 tion 413(b) of the Energy Conservation and Production  
10 Act (42 U.S.C. 6863(b)) is amended—

11           (1) in paragraph (1), by striking “Health, Edu-  
12 cation, and Welfare” and inserting “Health and  
13 Human Services”;

14           (2) in paragraph (2)(A), by striking “Health,  
15 Education, and Welfare” and inserting “Health and  
16 Human Services”;

17           (3) in paragraph (3)—

18           (A) by striking “and with the Director of  
19 the Community Services Administration”;

20           (B) by inserting “and by” after “in car-  
21 rying out this part,”; and

22           (C) by striking “, and the Director of the  
23 Community Services Administration in carrying  
24 out weatherization programs under section

1           222(a)(12) of the Economic Opportunity Act of  
2           1964”;

3           (4) by redesignating paragraphs (4) through  
4           (6) as paragraphs (5) through (7), respectively; and  
5           (5) by inserting after paragraph (3), the fol-  
6           lowing:

7           “(4) The Secretary may amend the regulations pre-  
8           scribed under paragraph (1) to provide that the standards  
9           described in paragraph (2)(A) take into consideration im-  
10          provements in the health and safety of occupants of dwell-  
11          ing units, and other nonenergy benefits, from weatheriza-  
12          tion.”.

13          (d) CONTRACTOR OPTIMIZATION.—

14           (1) IN GENERAL.—The Energy Conservation  
15          and Production Act is amended by inserting after  
16          section 414B (42 U.S.C. 6864b) the following:

17          **“SEC. 414C. CONTRACTOR OPTIMIZATION.**

18           “(a) IN GENERAL.—The Secretary may request that  
19          entities receiving funding from the Federal Government  
20          or from a State through a weatherization assistance pro-  
21          gram under section 413 or section 414 perform periodic  
22          reviews of the use of private contractors in the provision  
23          of weatherization assistance, and encourage expanded use  
24          of contractors as appropriate.



1       “(b) USE OF TRAINING FUNDS.—Entities described  
2 in subsection (a) may use funding described in such sub-  
3 section to train private, non-Federal entities that are con-  
4 tracted to provide weatherization assistance under a  
5 weatherization program, in accordance with rules deter-  
6 mined by the Secretary.”.

7           (2) TABLE OF CONTENTS AMENDMENT.—The  
8 table of contents for the Energy Conservation and  
9 Production Act is amended by inserting after the  
10 item relating to section 414B the following:

“Sec. 414C. Contractor optimization.”.

11       (e) FINANCIAL ASSISTANCE FOR WAP ENHANCE-  
12 MENT AND INNOVATION.—

13           (1) IN GENERAL.—The Energy Conservation  
14 and Production Act is amended by inserting after  
15 section 414C (as added by subsection (d) of this sec-  
16 tion) the following:

17 **“SEC. 414D. FINANCIAL ASSISTANCE FOR WAP ENHANCE-**  
18 **MENT AND INNOVATION.**

19       “(a) PURPOSES.—The purposes of this section are—

20           “(1) to expand the number of dwelling units  
21 that are occupied by low-income persons that receive  
22 weatherization assistance by making such dwelling  
23 units weatherization-ready;

1           “(2) to promote the deployment of zero-emis-  
2           sion electric energy in dwelling units that are occu-  
3           pied by low-income persons;

4           “(3) to ensure healthy indoor environments by  
5           enhancing or expanding health and safety measures  
6           and resources available to dwellings that are occu-  
7           pied by low-income persons;

8           “(4) to disseminate new methods and best prac-  
9           tices among entities providing weatherization assist-  
10          ance; and

11          “(5) to encourage entities providing weatheriza-  
12          tion assistance to hire and retain employees who are  
13          individuals—

14                 “(A) from the community in which the as-  
15                 sistance is provided; and

16                 “(B) from communities or groups that are  
17                 underrepresented in the home energy perform-  
18                 ance workforce, including religious and ethnic  
19                 minorities, women, veterans, individuals with  
20                 disabilities, individuals who are socioeconomical-  
21                 ly disadvantaged, and energy transition workers  
22                 (as defined in section 511 of the Clean Energy  
23                 Innovation and Deployment Act of 2020).

24          “(b) FINANCIAL ASSISTANCE.—The Secretary shall,  
25          to the extent funds are made available, award financial

1 assistance, on an annual basis, through a competitive  
2 process to entities receiving funding from the Federal Gov-  
3 ernment or from a State, tribal organization, or unit of  
4 general purpose local government through a weatheriza-  
5 tion program under section 413 or section 414, or to non-  
6 profit entities, to be used by such an entity—

7           “(1) with respect to dwelling units that are oc-  
8           cupied by low-income persons, to—

9                   “(A) implement measures to make such  
10                  dwelling units weatherization-ready by address-  
11                  ing structural, plumbing, roofing, and electrical  
12                  issues, environmental hazards, or other meas-  
13                  ures that the Secretary determines to be appro-  
14                  priate;

15                   “(B) install energy efficiency technologies,  
16                  including home energy management systems,  
17                  smart devices, technologies that have been  
18                  awarded a prize under section 128 of the Clean  
19                  Energy Innovation and Deployment Act of  
20                  2020, and other technologies the Secretary de-  
21                  termines to be appropriate;

22                   “(C) install renewable energy systems (as  
23                  defined in section 415(c)(6)(A)); and

24                   “(D) implement measures to ensure  
25                  healthy indoor environments by improving in-

1 door air quality, accessibility, and other healthy  
2 homes measures as determined by the Sec-  
3 retary;

4 “(2) to improve the capability of the entity—

5 “(A) to significantly increase the number  
6 of energy retrofits performed by such entity;

7 “(B) to replicate best practices for work  
8 performed pursuant to this section on a larger  
9 scale;

10 “(C) to leverage additional funds to sus-  
11 tain the provision of weatherization assistance  
12 and other work performed pursuant to this sec-  
13 tion after financial assistance awarded under  
14 this section is expended; and

15 “(D) to hire and retain employees who are  
16 individuals described subsection (a)(5);

17 “(3) for innovative outreach and education re-  
18 garding the benefits and availability of weatheriza-  
19 tion assistance and other assistance available pursu-  
20 ant to this section;

21 “(4) for quality control of work performed pur-  
22 suant to this section;

23 “(5) for data collection, measurement, and  
24 verification with respect to such work;

1           “(6) for program monitoring, oversight, evalua-  
2           tion, and reporting regarding such work;

3           “(7) for labor, training, and technical assist-  
4           ance relating to such work;

5           “(8) for planning, management, and adminis-  
6           tration (up to a maximum of 15 percent of the as-  
7           sistance provided); and

8           “(9) for such other activities as the Secretary  
9           determines to be appropriate.

10          “(c) AWARD FACTORS.—In awarding financial assist-  
11          ance under this section, the Secretary shall consider—

12           “(1) the applicant’s record of constructing, ren-  
13           ovating, repairing, or making energy efficient single-  
14           family, multifamily, or manufactured homes that are  
15           occupied by low-income persons, either directly or  
16           through affiliates, chapters, or other partners (using  
17           the most recent year for which data are available);

18           “(2) the number of dwelling units occupied by  
19           low-income persons that the applicant has built, ren-  
20           ovated, repaired, weatherized, or made more energy  
21           efficient in the 5 years preceding the date of the ap-  
22           plication;

23           “(3) the qualifications, experience, and past  
24           performance of the applicant, including experience

1 successfully managing and administering Federal  
2 funds;

3 “(4) the strength of an applicant’s proposal to  
4 achieve one or more of the purposes under sub-  
5 section (a);

6 “(5) the extent to which such applicant will uti-  
7 lize partnerships and regional coordination to  
8 achieve one or more of the purposes under sub-  
9 section (a);

10 “(6) regional and climate zone diversity;

11 “(7) urban, suburban, and rural localities; and

12 “(8) such other factors as the Secretary deter-  
13 mines to be appropriate.

14 “(d) APPLICATIONS.—

15 “(1) ADMINISTRATION.—To be eligible for an  
16 award of financial assistance under this section, an  
17 applicant shall submit to the Secretary an applica-  
18 tion in such manner and containing such informa-  
19 tion as the Secretary may require.

20 “(2) AWARDS.—Subject to the availability of  
21 appropriations, not later than 270 days after the  
22 date of enactment of this section, the Secretary shall  
23 make a first award of financial assistance under this  
24 section.

25 “(e) MAXIMUM AMOUNT AND TERM.—

1           “(1) IN GENERAL.—The total amount of finan-  
2           cial assistance awarded to an entity under this sec-  
3           tion shall not exceed \$2,000,000.

4           “(2) TECHNICAL AND TRAINING ASSISTANCE.—  
5           The total amount of financial assistance awarded to  
6           an entity under this section shall be reduced by the  
7           cost of any technical and training assistance pro-  
8           vided by the Secretary that relates to such financial  
9           assistance.

10           “(3) TERM.—The term of an award of financial  
11           assistance under this section shall not exceed 3  
12           years.

13           “(4) RELATIONSHIP TO FORMULA GRANTS.—An  
14           entity may use financial assistance awarded to such  
15           entity under this section in conjunction with other  
16           financial assistance provided to such entity under  
17           this part.

18           “(f) REQUIREMENTS.—Not later than 90 days after  
19           the date of enactment of this section, the Secretary shall  
20           issue requirements to implement this section, including,  
21           for entities receiving financial assistance under this sec-  
22           tion—

23           “(1) standards for allowable expenditures;

24           “(2) a minimum saving-to-investment ratio; and

25           “(3) standards for—

1           “(A) training programs;

2           “(B) energy audits;

3           “(C) the provision of technical assistance;

4           “(D) monitoring activities carried out  
5 using such financial assistance;

6           “(E) verification of energy and cost sav-  
7 ings;

8           “(F) liability insurance requirements; and

9           “(G) recordkeeping and reporting require-  
10 ments, which shall include reporting to the Of-  
11 fice of Weatherization and Intergovernmental  
12 Programs of the Department of Energy applica-  
13 ble data on each dwelling unit retrofitted or  
14 otherwise assisted pursuant to this section.

15       “(g) COMPLIANCE WITH STATE AND LOCAL LAW.—  
16 Nothing in this section supersedes or otherwise affects any  
17 State or local law, to the extent that the State or local  
18 law contains a requirement that is more stringent than  
19 the applicable requirement of this section.

20       “(h) REVIEW AND EVALUATION.—The Secretary  
21 shall review and evaluate the performance of each entity  
22 that receives an award of financial assistance under this  
23 section (which may include an audit).



1       “(i) ANNUAL REPORT.—The Secretary shall submit  
2 to Congress an annual report that provides a description  
3 of—

4           “(1) actions taken under this section to achieve  
5 the purposes of this section; and

6           “(2) accomplishments as a result of such ac-  
7 tions, including energy and cost savings achieved.

8       “(j) FUNDING.—

9           “(1) AMOUNTS.—

10           “(A) IN GENERAL.—For each of fiscal  
11 years 2021 through 2030, of the amount made  
12 available under section 422 for such fiscal year  
13 to carry out the weatherization program under  
14 this part (not including any of such amount  
15 made available for Department of Energy head-  
16 quarters training or technical assistance), not  
17 more than—

18           “(i) 2 percent of such amount (if such  
19 amount is \$225,000,000 or more but less  
20 than \$260,000,000) may be used to carry  
21 out this section;

22           “(ii) 4 percent of such amount (if  
23 such amount is \$260,000,000 or more but  
24 less than \$300,000,000) may be used to  
25 carry out this section; and

1                   “(iii) 6 percent of such amount (if  
2                   such amount is \$300,000,000 or more)  
3                   may be used to carry out this section.

4                   “(B) MINIMUM.—For each of fiscal years  
5                   2021 through 2030, if the amount made avail-  
6                   able under section 422 (not including any of  
7                   such amount made available for Department of  
8                   Energy headquarters training or technical as-  
9                   sistance) for such fiscal year is less than  
10                  \$225,000,000, no funds shall be made available  
11                  to carry out this section.

12                  “(2) LIMITATION.—For any fiscal year, the  
13                  Secretary may not use more than \$25,000,000 of  
14                  the amount made available under section 422 to  
15                  carry out this section.”.

16                  (2) TABLE OF CONTENTS.—The table of con-  
17                  tents for the Energy Conservation and Production  
18                  Act is amended by inserting after the item relating  
19                  to section 414C the following:

“Sec. 414D. Financial assistance for WAP enhancement and innovation.”.

20                  (f) HIRING.—

21                  (1) IN GENERAL.—The Energy Conservation  
22                  and Production Act is amended by inserting after  
23                  section 414D (as added by subsection (e) of this sec-  
24                  tion) the following:

1 **“SEC. 414E. HIRING.**

2 “The Secretary may, as the Secretary determines ap-  
3 propriate, encourage entities receiving funding from the  
4 Federal Government or from a State through a weather-  
5 ization program under section 413 or section 414, to  
6 prioritize the hiring and retention of employees who are  
7 individuals described in section 414D(a)(5).”.

8 (2) TABLE OF CONTENTS.—The table of con-  
9 tents for the Energy Conservation and Production  
10 Act is amended by inserting after the item relating  
11 to section 414D the following:

“Sec. 414E. Hiring.”.

12 (g) INCREASE IN ADMINISTRATIVE FUNDS.—Section  
13 415(a)(1) of the Energy Conservation and Production Act  
14 (42 U.S.C. 6865(a)(1)) is amended by striking “10 per-  
15 cent” and inserting “15 percent”.

16 (h) AMENDING REWEATHERIZATION DATE.—Para-  
17 graph (2) of section 415(c) of the Energy Conservation  
18 and Production Act (42 U.S.C. 6865(c)) is amended to  
19 read as follows:

20 “(2) Dwelling units weatherized (including dwelling  
21 units partially weatherized) under this part, or under  
22 other Federal programs (in this paragraph referred to as  
23 ‘previous weatherization’), may not receive further finan-  
24 cial assistance for weatherization under this part until the  
25 date that is 15 years after the date such previous weather-

1 ization was completed. This paragraph does not preclude  
2 dwelling units that have received previous weatherization  
3 from receiving assistance and services (including the provi-  
4 sion of information and education to assist with energy  
5 management and evaluation of the effectiveness of in-  
6 stalled weatherization materials) other than weatheriza-  
7 tion under this part or under other Federal programs, or  
8 from receiving non-Federal assistance for weatheriza-  
9 tion.”.

10 (i) ANNUAL REPORT.—Section 421 of the Energy  
11 Conservation and Production Act (42 U.S.C. 6871) is  
12 amended by inserting “the number of multifamily build-  
13 ings in which individual dwelling units were weatherized  
14 during the previous year, the number of individual dwell-  
15 ing units in multifamily buildings weatherized during the  
16 previous year,” after “the average size of the dwellings  
17 being weatherized,”.

18 (j) REPORT ON WAIVERS.—Not later than 180 days  
19 after the date of enactment of this Act, the Secretary of  
20 Energy shall submit to Congress a report on the status  
21 of any request made after September 30, 2010, for a waiv-  
22 er of any requirement under section 200.313 of title 2,  
23 Code of Federal Regulations, as such requirement applies  
24 with respect to the weatherization assistance program  
25 under part A of title IV of the Energy Conservation and

1 Production Act (42 U.S.C. 6861 et seq.), including a de-  
2 scription of any such waiver that has been granted and  
3 any such request for a waiver that has been considered  
4 but not granted.

5 **SEC. 402. LIHEAP AUTHORIZATION.**

6 Section 2602 of the Low-Income Home Energy As-  
7 sistance Act of 1981 (42 U.S.C. 8621) is amended—

8 (1) in subsection (b), by striking “through  
9 2007” and inserting “through 2030”; and

10 (2) in subsection (d)—

11 (A) in paragraph (1), by striking “through  
12 2004” and inserting “through 2030”; and

13 (B) in paragraph (2), by striking “through  
14 2004” and inserting “through 2030”.

15 **TITLE V—ENERGY WORKFORCE**  
16 **TRANSITION AND TRAINING**

17 **SEC. 500. PURPOSES.**

18 The purposes of this title are to provide for a transi-  
19 tion to a modern energy system, including by ensuring  
20 that—

21 (1) the United States has a workforce prepared  
22 to address the needs of the modern energy system;

23 (2) workers in declining energy sectors and in  
24 disenfranchised communities acquire well-paying  
25 jobs in growing energy sectors; and

1           (3) communities, especially those that are dis-  
2           proportionately vulnerable to the impacts of climate  
3           change and other pollution, can be made resilient to  
4           the impacts of climate change.

## 5           **Subtitle A—State Energy Plans**

### 6           **SEC. 501. STATE ENERGY PLANS.**

7           (a) IN GENERAL.—Section 362(d) of the Energy Pol-  
8           icy and Conservation Act (42 U.S.C. 6322(d)) is amend-  
9           ed—

10           (1) in paragraph (16), by striking “; and” and  
11           inserting a semicolon;

12           (2) by redesignating paragraph (17) as para-  
13           graph (18); and

14           (3) by inserting after paragraph (16) the fol-  
15           lowing:

16           “(17) a State energy plan developed in accord-  
17           ance with section 367; and”.

18           (b) STATE ENERGY PLANS.—Part D of title III of  
19           the Energy Policy and Conservation Act (42 U.S.C. 6321  
20           et seq.) is amended by adding at the end the following:

### 21           **“SEC. 367. STATE ENERGY PLANS.**

22           “(a) IN GENERAL.—The Secretary may provide fi-  
23           nancial assistance to a State to develop a State energy  
24           plan, for inclusion in a State energy conservation plan  
25           under section 362(d), to provide for—

1           “(1) the elimination of net greenhouse gas  
2 emissions;

3           “(2) improved air and water quality; and

4           “(3) conservation of natural resources.

5           “(b) CONTENTS.—A State developing a State energy  
6 plan under this section shall include in such plan, meas-  
7 ures to—

8           “(1) ensure that the full social cost of carbon  
9 pollution is factored into decision-making associated  
10 with electricity generation and utility investments in  
11 energy efficiency and electric vehicle infrastructure;

12           “(2) promote investments in a distribution sys-  
13 tem that takes advantage of technology advancement  
14 and supports reduced pollution, consumer choice,  
15 and a resilient and reliable system;

16           “(3) address the need to site transmission lines  
17 and new electricity generating units efficiently;

18           “(4) evaluate the role of existing resources as  
19 part of utility planning to accelerate the transition  
20 to low-cost carbon emissions reductions;

21           “(5) engage with regional partners to explore  
22 the potential benefits of regional markets;

23           “(6) support utility leadership in its efforts to  
24 transition to sources of electricity that result in net  
25 zero greenhouse gas emissions;

1           “(7) support infrastructure upgrades and smart  
2 grid investments to improve system-wide efficiency;

3           “(8) support building codes for new and retro-  
4 fitted buildings that promote the energy efficiency of  
5 buildings and the electric grid;

6           “(9) support improved appliance efficiency  
7 standards;

8           “(10) support investments in electric vehicle in-  
9 frastructure in ways that will ensure a more efficient  
10 grid and greater adoption of electric vehicles, includ-  
11 ing in rural areas;

12           “(11) support workforce and economic transi-  
13 tion planning for communities impacted by a chang-  
14 ing energy landscape, as informed by the Energy  
15 Workforce Transition Plan developed under section  
16 512 of the Clean Energy Innovation and Deploy-  
17 ment Act of 2020, and the pilot program developed  
18 under section 523 of such Act;

19           “(12) consider the human health and environ-  
20 mental impacts of energy development and climate  
21 change on low-income and underserved populations,  
22 including rural communities, communities of color,  
23 children, the elderly, and sick; and



1           “(13) develop strategies to support local clean  
2           energy goals facilitating utility-community coopera-  
3           tion and private sector partnerships.

4           “(c) COORDINATION.—In developing a State energy  
5           plan under this section, a State shall coordinate, as appro-  
6           priate, with—

7           “(1) State regulatory authorities (as defined in  
8           section 3 of the Public Utility Regulatory Policies  
9           Act of 1978);

10           “(2) electric utilities;

11           “(3) Regional Transmission Organizations (as  
12           defined in section 3 of the Federal Power Act) and  
13           Independent System Operators (as defined in section  
14           3 of the Federal Power Act);

15           “(4) private entities;

16           “(5) State agencies, metropolitan planning or-  
17           ganizations, and local governments;

18           “(6) the Energy Workforce Transition Office  
19           established by section 512 of the Clean Energy In-  
20           novation and Deployment Act of 2020;

21           “(7) relevant public and private entities; and

22           “(8) labor organizations, such as those rep-  
23           resenting workers in the construction, manufac-  
24           turing, or energy sectors.

1       “(d) TECHNICAL ASSISTANCE.—Upon request of the  
2 Governor of a State, the Secretary shall provide informa-  
3 tion and technical assistance in the development, imple-  
4 mentation, or revision of a State energy plan.”.

5 **SEC. 502. AUTHORIZATION OF APPROPRIATIONS.**

6       (a) STATE ENERGY CONSERVATION PLANS.—Section  
7 365(f) of the Energy Policy and Conservation Act (42  
8 U.S.C. 6325(f)) is amended to read as follows:

9       “(f) AUTHORIZATION OF APPROPRIATIONS.—

10           “(1) STATE ENERGY CONSERVATION PLANS.—

11       For the purpose of carrying out this part, there is  
12 authorized to be appropriated \$100,000,000 for each  
13 of fiscal years 2022 through 2026.

14           “(2) STATE ENERGY PLANS.—In addition to  
15 the amounts authorized under paragraph (1), for the  
16 purpose of carrying out section 367, there is author-  
17 ized to be appropriated \$25,000,000 for each of fis-  
18 cal years 2022 through 2026.”.

19       (b) TRANSPORTATION ELECTRIFICATION.—Section  
20 131 of the Energy Independence and Security Act of 2007  
21 (42 U.S.C. 17011) is amended—

22           (1) in subsection (b)(6), by striking “2008  
23 through 2012” and inserting “2022 through 2026”;  
24 and

1           (2) in subsection (c)(4), by striking “2008  
2 through 2013” and inserting “2022 through 2026”.

3           **Subtitle B—Energy Workforce**  
4           **Transition**

5 **SEC. 511. DEFINITIONS.**

6           In this subtitle:

7           (1) **ADVISORY COMMITTEE.**—The term “Advi-  
8 sory Committee” means the Energy Workforce  
9 Transition Advisory Committee established by sec-  
10 tion 512(d).

11           (2) **COAL-RELATED FACILITY.**—The term “coal-  
12 related facility” includes a coal mine or a coal-fueled  
13 electric generating facility.

14           (3) **COAL-RELATED INDUSTRIAL FACILITY.**—  
15 The term “coal-related industrial facility” includes a  
16 facility in the manufacturing and transportation  
17 supply chains of a coal-related facility.

18           (4) **DIRECTOR.**—The term “Director” means  
19 the Director of the Office.

20           (5) **DISPROPORTIONATELY IMPACTED COMMU-**  
21 **NITY.**—The term “disproportionately impacted com-  
22 munity” means any community of color, low-to-mid-  
23 dle income community, or indigenous community  
24 that is or has been disproportionately impacted by  
25 energy-related pollution.

1           (6) ENERGY TRANSITION COMMUNITY.—The  
2 term “energy transition community” means a mu-  
3 nicipality, county, region, or Indian Tribe that has  
4 been affected since calendar year 2008 or later, or  
5 that demonstrates it will be impacted in the next 36  
6 months, by the loss of 50 or more jobs in total as  
7 a result of the closure of a coal-related facility, a  
8 coal-related industrial facility, or another type of en-  
9 ergy-related entity, as determined by the Office.

10           (7) ENERGY TRANSITION WORKER.—The term  
11 “energy transition worker” means a worker, includ-  
12 ing workers employed by contractors or subcontractors,  
13 terminated, laid off from employment, or whose  
14 work hours have been reduced, on or after the date  
15 of enactment of this Act, from a coal-related facility,  
16 coal-related industrial facility, or other energy-re-  
17 lated entity.

18           (8) ENERGY WORKFORCE TRANSITION PLAN.—  
19 The term “Energy Workforce Transition Plan”  
20 means the plan developed under section 512(d).

21           (9) LABOR ORGANIZATION.—The term “labor  
22 organization” has the meaning given such term in  
23 section 2 of the National Labor Relations Act (29  
24 U.S.C. 152).

1           (10) OFFICE.—The term “Office” means the  
2           Energy Workforce Transition Office established by  
3           section 512.

4           (11) SECRETARY.—The term “Secretary”  
5           means the Secretary of Energy.

6           (12) WAGE DIFFERENTIAL BENEFIT.—The  
7           term “wage differential benefit” means the dif-  
8           ference between the wages and other benefits pro-  
9           vided by—

10                   (A) a worker’s wages and benefits earned  
11                   in a coal-related facility, coal-related industrial-  
12                   facility, or other energy-related entity on the  
13                   day before the worker is terminated, laid off, or  
14                   given a reduction in work-hours; and

15                   (B) the worker’s current wages and bene-  
16                   fits, if any, after such a termination, lay-off, or  
17                   reduction in work-hours.

18 **SEC. 512. ENERGY WORKFORCE TRANSITION OFFICE AND**  
19 **ADVISORY COMMITTEE.**

20           (a) ESTABLISHMENT.—There is hereby established  
21           within the Department of Energy an office to be known  
22           as the Energy Workforce Transition Office.

23           (b) EXEMPTION FROM REORGANIZATION.—The Of-  
24           fice shall be exempt from the reorganization authority pro-

1 vided under section 643 of the Department of Energy Or-  
2 ganization Act (42 U.S.C. 7253).

3 (c) DIRECTOR.—The Secretary shall appoint as the  
4 head of the Office a Director, who shall manage the oper-  
5 ations of the Office.

6 (d) DUTIES OF THE OFFICE.—The duties of the Of-  
7 fice shall be to—

8 (1) identify or estimate, to the extent prac-  
9 ticable, with respect to the period that begins on the  
10 date of enactment of this Act and ends on January  
11 1, 2030—

12 (A) the timing and location of facility clo-  
13 sures and job terminations or layoffs in coal-re-  
14 lated facilities, coal-related industrial-facilities,  
15 and other energy-related entities; and

16 (B) the impact of such terminations, lay-  
17 offs, or reduced work-hours on affected workers  
18 (including those employed by a contractor or  
19 subcontractor), businesses, and energy transi-  
20 tion communities; and

21 (2) provide administrative, logistical, research,  
22 and policy support and recommendations to the Ad-  
23 visory Committee.

24 (e) ENERGY WORKFORCE TRANSITION ADVISORY  
25 COMMITTEE.—

1           (1) ESTABLISHMENT.—There is hereby estab-  
2           lished an advisory committee, to be known as the  
3           Energy Workforce Transition Advisory Committee.

4           (2) ENERGY WORKFORCE TRANSITION PLAN.—

5           (A) IN GENERAL.—The Advisory Com-  
6           mittee shall develop and finalize a plan, to be  
7           known as the Energy Workforce Transition  
8           Plan.

9           (B) PURPOSE.—The purpose of the En-  
10          ergy Workforce Transition Plan is to identify,  
11          align, and streamline resources to assist work-  
12          ers and communities impacted by the transition  
13          to a clean energy economy.

14          (C) PUBLIC MEETINGS.—In developing the  
15          Energy Workforce Transition Plan, the Advi-  
16          sory Committee shall hold no less than 4 public  
17          meetings in energy-transition communities, with  
18          opportunities for members of the public to pro-  
19          vide input.

20          (D) CONTENTS.—The Energy Workforce  
21          Transition Plan shall include—

22                 (i) a description of the challenges that  
23                 energy transition communities encounter,  
24                 including challenges associated with eco-

1            nomic and employment transition, and  
2            challenges particular to certain regions;

3            (ii) a description of benefits, grants,  
4            and other sources of funding to address  
5            the challenges described under clause (i)  
6            that may be accessed from Federal, State,  
7            local, and other sources without additional  
8            legislative authority or approval;

9            (iii) a description of sources of fund-  
10           ing to address the challenges described  
11           under clause (i) that require additional leg-  
12           islative authority or approval;

13           (iv) recommendations for aligning  
14           local, State, Federal, and other resources  
15           to invest in energy transition communities  
16           and energy transition workers;

17           (v) recommendations for establishing  
18           benefits for energy transition workers, in-  
19           cluding consideration of—

20                    (I) benefits similar in type,  
21                    amount, and duration to Federal ben-  
22                    efits that are not otherwise available  
23                    to all energy transition workers;

24                    (II) wage differential benefits for  
25                    energy transition workers, including



1 consideration of eligibility and the du-  
2 ration of the benefits; and

3 (III) collaboration with existing  
4 or future employers of energy transi-  
5 tion workers and relevant labor orga-  
6 nizations, to inform energy transition  
7 workers how to apply for wage dif-  
8 ferential and other eligible benefits;

9 (vi) recommendations for grants and  
10 other programmatic support for energy  
11 transition communities and entities that  
12 support energy transition communities, in-  
13 cluding—

14 (I) counties, municipalities, cities,  
15 or other political subdivisions of a  
16 State;

17 (II) Indian Tribes;

18 (III) apprenticeships registered  
19 under the Act of August 16, 1937  
20 (commonly known as the “National  
21 Apprenticeship Act”; 50 Stat. 664,  
22 chapter 663; 29 U.S.C. 50 et seq.),  
23 that meet the requirements of parts  
24 29 and 30 of title 29, Code of Federal

1 Regulations, as in effect on December  
2 30, 2019;

3 (IV) institutions of higher edu-  
4 cation; and

5 (V) public or private nonprofit  
6 organizations or associations;

7 (vii) recommendations for establishing  
8 community transition resource centers in  
9 energy transition communities, in order to  
10 provide such communities a source of cur-  
11 rent information regarding the resources  
12 described in this subparagraph;

13 (viii) identification of the projected  
14 short-term and long-term costs of each ac-  
15 tivity recommended in the Energy Work-  
16 force Transition Plan, including worker  
17 benefits, grant programs, and other activi-  
18 ties;

19 (ix) identification of the potential  
20 sources for sustainable short-term and  
21 long-term funding for implementing the ac-  
22 tivities recommended in the Energy Work-  
23 force Transition Plan;

24 (x) the potential advantages or dis-  
25 advantages of extending activities rec-

1           ommended in the Energy Workforce Tran-  
2           sition Plan to other sectors and industries  
3           affected by similar economic disruptions;  
4           and

5           (xi) recommendations, made in con-  
6           sultation with relevant Federal agencies,  
7           including the Department of Labor, and  
8           relevant State authorities, for efficient im-  
9           plementation of the activities recommended  
10          in the Energy Workforce Transition Plan.

11          (E) REPORT TO CONGRESS.—Not later  
12          than January 1, 2023, the Advisory Committee  
13          shall submit to Congress the Energy Workforce  
14          Transition Plan, as well as any recommenda-  
15          tions to be considered in order to better achieve  
16          the plan.

17          (3) MEMBERSHIP.—The Advisory Committee  
18          shall consist of the following members:

19               (A) Ex officio members as follows:

20                   (i) A representative of the Depart-  
21                   ment of Labor.

22                   (ii) A representative of the Economic  
23                   Development Administration of the De-  
24                   partment of Commerce.

1 (iii) A representative of the Executive  
2 Office of the President.

3 (B) The following members appointed by  
4 the Director:

5 (i) 4 representatives of energy transi-  
6 tion workers, including at least one from a  
7 union representing coal workers, one from  
8 a building trades union, and one from a  
9 union representing other energy transition  
10 workers.

11 (ii) 3 representatives from energy  
12 transition communities.

13 (iii) 2 representatives with profes-  
14 sional economic development or workforce  
15 retraining experience.

16 (iv) 2 representatives of disproportion-  
17 ately impacted communities.

18 (v) 2 representatives of electric utili-  
19 ties that, on the date of enactment of this  
20 Act, operate a coal-related facility.

21 (4) TERM.—Except as otherwise provided in  
22 this section, the term of appointment or designation  
23 of a member of the Advisory Committee shall end on  
24 January 1, 2027.

1           (5) EXPENSES.—In accordance with section  
2           5703 of title 5, United States Code, each member of  
3           the Advisory Committee may receive payment of a  
4           per diem and reimbursement for actual and nec-  
5           essary expenses.

6           (6) CHAIR.—The Advisory Committee shall  
7           elect a chair from among its members to serve for  
8           a term not to exceed 2 years, as determined appro-  
9           priate by the Advisory Committee.

10          (7) MEETINGS.—The Advisory Committee shall  
11          meet at least once every quarter. The chair of the  
12          Advisory Committee may call such additional meet-  
13          ings as are necessary for the Advisory Committee,  
14          with the Secretary, to develop and submit the Con-  
15          gress the Energy Workforce Transition Plan.

16          (8) ENGAGEMENT OF OTHERS.—The Advisory  
17          Committee may engage additional nonvoting mem-  
18          bers or advisors to provide additional expertise as  
19          needed.

20 **SEC. 513. ENERGY WORKFORCE TRANSITION PLANS AND**  
21 **REEMPLOYMENT OF AFFECTED WORKERS.**

22          (a) SUBMISSION.—The owner or operator of an en-  
23          ergy-related facility shall to the extent practicable submit  
24          to the Director a workforce transition plan—

1           (1) with respect to a coal-fueled electric gener-  
2           ating facility with a capacity of more than 50  
3           megawatts, 12 months before the closure of the fa-  
4           cility;

5           (2) with respect to a coal mine with a capacity  
6           of more than 4,000,000 short tons of coal per year,  
7           12 months before the closure of the coal mine; and

8           (3) with respect to an energy-related facility not  
9           described under paragraph (1) or (2), not later than  
10          60 days before the closure of the facility.

11          (b) CONTENTS.—To the extent practicable, a work-  
12          force transition plan submitted under subsection (a) shall  
13          include estimates of—

14               (1) the number of workers, including those em-  
15               ployed by a contractor or subcontractor, employed  
16               by the coal-related facility before the closure of the  
17               facility;

18               (2) the total number of such workers, including  
19               those employed by a contractor or subcontractor,  
20               whose employment, as a result of the closure of the  
21               coal-related facility, will—

22                       (A) be retained;

23                       (B) be eliminated; and

24                       (C) be given a reduction in hours;

1           (3) with respect to the workers, including those  
2           employed by a contractor or subcontractor, whose  
3           existing jobs will be eliminated as a result of the clo-  
4           sure of the coal-related facility, the total number,  
5           and the number by job classification, of workers—

6                   (A) whose employment will end without  
7                   being offered other employment;

8                   (B) who will retire as planned, be offered  
9                   early retirement, or leave on their own;

10                   (C) who will be retained by being trans-  
11                   ferred to other activities under the employment  
12                   of the owner or operator; and

13                   (D) who will be retained to continue to  
14                   work for the owner or operator in a new job  
15                   classification;

16           (4) with respect to the workers, including those  
17           employed by a contractor or subcontractor, whose  
18           existing jobs will be retained during the closure of  
19           the coal-related facility, the total number, and the  
20           number by job classification, of workers who will  
21           work on the decommissioning and environmental re-  
22           mediation of the facility; and

23           (5) if an owner or operator is replacing a coal-  
24           related facility with a new electric generating facil-  
25           ity, the number of—

1 (A) workers from the closed coal-related  
2 facility who will be employed at the new electric  
3 generating facility; and

4 (B) jobs at the new electric generating fa-  
5 cility that will be outsourced to contractors or  
6 subcontractors.

7 (c) PRIVACY.—A workforce transition plan submitted  
8 under subsection (a) shall not include information that  
9 violates privacy of workers or confidential business infor-  
10 mation.

11 (d) REGULATIONS.—Not later than 1 year after the  
12 date of enactment of this Act, the Secretary shall promul-  
13 gate regulations to implement this subtitle.

## 14 **Subtitle C—Modern Energy** 15 **Workforce Development**

### 16 **SEC. 521. DEFINITIONS.**

17 In this subtitle:

18 (1) APPRENTICESHIP PROGRAM.—The term  
19 “apprenticeship program” means an apprenticeship  
20 registered under the Act of August 16, 1937 (29  
21 U.S.C. 50 et seq.) (commonly known as the “Na-  
22 tional Apprenticeship Act”), that meets the require-  
23 ments of parts 29 and 30 of title 29, Code of Fed-  
24 eral Regulations, as in effect on December 30, 2019.



1           (2) ENERGY TRANSITION WORKER.—The term  
2           “energy transition worker” means a worker, includ-  
3           ing workers employed by contractors or subcontractors,  
4           terminated, laid off from employment, or whose  
5           work-hours have been reduced, on or after the date  
6           of enactment of this Act, from a coal-related facility,  
7           coal-related industrial facility, or other energy-re-  
8           lated entity.

9           (3) INSTITUTION OF HIGHER EDUCATION.—The  
10          term “institution of higher education” has the  
11          meaning given that term in section 101(a) of the  
12          Higher Education Act of 1965 (20 U.S.C. 1001(a)).

13          (4) LABOR ORGANIZATION.—The term “labor  
14          organization” has the meaning given the term in  
15          section 2 of the National Labor Relations Act (29  
16          U.S.C. 152).

17          (5) LOCAL EDUCATIONAL AGENCY.—The term  
18          “local educational agency” means a public board of  
19          education or other public authority legally con-  
20          stituted within a State for either administrative con-  
21          trol or direction of, or to perform a service function  
22          for, public schools in a city, county, township, school  
23          district, or other political subdivision of a State, or  
24          for a combination of school districts or counties as  
25          are recognized in a State as an administrative agen-

1 cy for its public elementary schools or secondary  
2 schools.

3 (6) LOCAL WORKFORCE DEVELOPMENT  
4 BOARD.—The term “local workforce development  
5 board” has the meaning given that term in section  
6 3122 of title 29, United States Code.

7 (7) MINORITY INSTITUTION.—The term “mi-  
8 nority institution” has the meaning given that term  
9 in section 365(3) of the Higher Education Act of  
10 1965 (20 U.S.C. 1067k(3)).

11 (8) NONPROFIT ORGANIZATION.—The term  
12 “nonprofit organization” means a group organized  
13 for purposes other than generating profit and in  
14 which no part of the organization’s income is distrib-  
15 uted to its members, directors, or officers.

16 (9) PRE-APPRENTICESHIP.—The term “pre-ap-  
17 prenticeship” means, with respect to a program, an  
18 initiative or set of strategies that—

19 (A) is designed to prepare participants to  
20 enter an apprenticeship program;

21 (B) is carried out by an eligible sponsor  
22 that has a documented partnership with one or  
23 more sponsors of apprenticeship programs; and

24 (C) includes each of the following:

1 (i) Training (including a curriculum  
2 for the training) aligned with industry  
3 standards related to an apprenticeship pro-  
4 gram and reviewed and approved annually  
5 by sponsors of the apprenticeship program  
6 within the documented partnership that  
7 will prepare participants by teaching the  
8 skills and competencies needed to enter  
9 one or more apprenticeship programs.

10 (ii) Hands-on training and theoretical  
11 education for participants that does not  
12 displace a paid employee.

13 (iii) A formal agreement with a spon-  
14 sor of an apprenticeship program that  
15 would enable participants who successfully  
16 complete the pre-apprenticeship program—

17 (I) to enter into the apprentice-  
18 ship program if a place in the pro-  
19 gram is available and if the partici-  
20 pant meets the qualifications of the  
21 apprenticeship program; and

22 (II) to earn credits towards the  
23 apprenticeship program.

1 **SEC. 522. MODERN ENERGY WORKFORCE DEVELOPMENT.**

2 (a) ESTABLISHMENT.—The Secretary of Energy, in  
3 consultation with the Secretary of Labor, shall establish  
4 and carry out a comprehensive and nationwide program  
5 (referred to in this section as the “Program”) to improve  
6 education and training for jobs in energy-related indus-  
7 tries (including manufacturing, engineering, construction,  
8 and retrofitting jobs in energy-related industries) to in-  
9 crease the number of skilled workers trained to work in  
10 energy-related industries with existing or expected worker  
11 shortages.

12 (b) WORKFORCE DEVELOPMENT.—

13 (1) IN GENERAL.—In carrying out the Pro-  
14 gram, the Secretary shall—

15 (A) offer available resources to energy  
16 transition workers and underrepresented  
17 groups, including religious and ethnic minori-  
18 ties, women, veterans, individuals with disabil-  
19 ities, and socioeconomically disadvantaged indi-  
20 viduals, to enter into science, technology, engi-  
21 neering, and mathematics fields;

22 (B) offer available resources to institutions  
23 of higher education to equip students with the  
24 skills, training, and technical expertise nec-  
25 essary to fill existing or expected worker short-  
26 ages in energy-related industries;

1 (C) provide internships, fellowships, and  
2 traineeships at the Department of Energy, in-  
3 cluding at National Laboratories;

4 (D) provide energy workforce-related re-  
5 search grants and technical assistance to insti-  
6 tutions of higher education, with priority given  
7 to minority institutions;

8 (E) ensure that internships, fellowships,  
9 traineeships, apprenticeships, and pre-appren-  
10 ticeships provide the necessary skills and certifi-  
11 cations for employment in energy-related indus-  
12 tries with existing or expected worker short-  
13 ages;

14 (F) ensure that the Program is in align-  
15 ment with the Minorities in Energy Initiative of  
16 the Department of Energy;

17 (G) ensure alignment with other programs  
18 that are carrying out the Minorities in Energy  
19 Initiative of the Department of Energy;

20 (H) to the maximum extent practicable,  
21 collaborate with and support State workforce  
22 development programs to maximize the effi-  
23 ciency of the Program; and

24 (I) work with labor organizations and insti-  
25 tutions of higher education to promote pre-ap-

1           prenticeship as a pathway to an energy-related  
2           career through an apprenticeship program.

3           (2) PRIORITY.—In carrying out the Program,  
4           the Secretary shall—

5                   (A) prioritize the education and training of  
6           energy transition workers and underrepresented  
7           groups, including religious and ethnic minori-  
8           ties, women, veterans, individuals with disabil-  
9           ities, and socioeconomically disadvantaged indi-  
10          viduals for jobs in energy-related industries, es-  
11          pecially construction; and

12                   (B) partner with labor organizations that  
13          have multi-year records of training and sup-  
14          porting energy transition workers and under-  
15          represented groups to successful completion of  
16          pre-apprenticeship and apprenticeship pro-  
17          grams.

18          (c) DIRECT ASSISTANCE.—

19                   (1) IN GENERAL.—In carrying out the Pro-  
20          gram, the Secretary shall provide direct assistance  
21          (including financial assistance awards, technical ex-  
22          pertise, and guidance) to local educational agencies,  
23          local workforce development boards, institutions of  
24          higher education, nonprofit organizations, labor or-

1 organizations, apprenticeship programs, and pre-ap-  
2 prenticeship programs.

3 (2) DISTRIBUTION.—The Secretary shall dis-  
4 tribute direct assistance under paragraph (1) in a  
5 manner that—

6 (A) is reflective of the needs of, and de-  
7 mand for jobs in, an energy-related industry;  
8 and

9 (B) is consistent with the information ob-  
10 tained under subsections (e)(4) and (j).

11 (3) RESTRICTION.—In providing financial as-  
12 sistance awards under paragraph (1) for education  
13 and training relating to construction, eligible entities  
14 shall only include apprenticeship programs, and pre-  
15 apprenticeship programs that have an articulation  
16 agreement with one or more apprenticeship pro-  
17 grams.

18 (d) RESOURCE CENTER.—The Secretary shall estab-  
19 lish an online resource center—

20 (1) to maintain and update information and re-  
21 sources on training programs for jobs in energy-re-  
22 lated industries (including manufacturing, engineer-  
23 ing, construction, and retrofitting jobs in energy-re-  
24 lated industries); and

1           (2) to connect local educational agencies, State  
2 educational agencies, institutions of higher edu-  
3 cation, local workforce development boards, State  
4 workforce development boards, nonprofit organiza-  
5 tions, labor organizations, apprenticeship programs  
6 and pre-apprenticeship programs that are working to  
7 develop and implement training programs for the  
8 jobs described in paragraph (1) to share resources,  
9 approaches, and best practices.

10       (e) COLLABORATION AND REPORT.—In carrying out  
11 the Program, the Secretary shall—

12           (1) collaborate with local educational agencies,  
13 institutions of higher education, local workforce de-  
14 velopment boards, nonprofit organizations, labor or-  
15 ganizations, apprenticeship programs and pre-ap-  
16 prenticeship programs, and energy-related indus-  
17 tries;

18           (2) facilitate the sharing of best practices and  
19 approaches that best suit local, State, and national  
20 needs;

21           (3) encourage and foster collaboration, mentor-  
22 ship, and partnership between—

23           (A) industry partners, local workforce de-  
24 velopment boards, nonprofit organizations,  
25 labor organizations, apprenticeship and pre-ap-



1           prenticeship programs, that provide effective  
2           training programs for jobs in energy-related in-  
3           dustries; and

4                   (B) local educational agencies, State edu-  
5           cational agencies, and institutions of higher  
6           education that seek to establish those programs;  
7           and

8           (4) collaborate with the Secretary of Labor, the  
9           Commissioner of the Bureau of Labor Statistics, the  
10          Secretary of Commerce, the Director of the Bureau  
11          of the Census, labor organizations, and energy-re-  
12          lated industries—

13                   (A) to develop a comprehensive and de-  
14          tailed understanding of the workforce needs of,  
15          and job opportunities in, energy-related indus-  
16          tries, by State and by region; and

17                   (B) to publish an annual report on job cre-  
18          ation in the sectors of energy-related industries  
19          identified under subsection (j).

20          (f) BEST PRACTICES FOR EDUCATIONAL INSTITU-  
21          TIONS.—

22                   (1) IN GENERAL.—The Secretary, in collabora-  
23          tion with the Secretary of Education, the Secretary  
24          of Commerce, the Secretary of Labor, and the Direc-  
25          tor of the National Science Foundation, shall de-

1        develop and report best practices for providing stu-  
2        dents with skills necessary for jobs in energy-related  
3        industries (including manufacturing, engineering,  
4        construction, and retrofitting jobs in energy-related  
5        industries) to local educational agencies, institutions  
6        of higher education, and apprenticeship programs.

7            (2) ENERGY EFFICIENCY AND COMMUNITY EN-  
8        ERGY RESILIENCY INITIATIVES.—The Secretary  
9        shall develop and provide best practices for teaching  
10       students and the families of those students about en-  
11       ergy efficiency and community energy resiliency.

12           (3) INPUT FROM INDUSTRY LABOR ORGANIZA-  
13       TIONS.—In carrying out paragraphs (1) and (2), the  
14       Secretary shall solicit input from energy-related in-  
15       dustries and labor organizations, especially sectors  
16       with existing or expected worker shortages or exper-  
17       tise in energy efficiency.

18           (4) STEM EDUCATION.—In carrying out para-  
19       graphs (1) and (2), the Secretary shall promote edu-  
20       cation in science, technology, engineering, and math-  
21       ematics.

22           (g) OUTREACH TO MINORITY INSTITUTIONS.—In  
23       carrying out the Program, the Secretary shall—

24            (1) increase the Department of Energy’s out-  
25       reach to minority institutions;

1           (2) work with minority institutions to increase  
2           the number of skilled minorities and women quali-  
3           fied for jobs in energy-related industries (including  
4           manufacturing, engineering, construction, and retro-  
5           fitting jobs in energy-related industries);

6           (3) work with energy-related industries to im-  
7           prove opportunities for students of minority institu-  
8           tions to participate in industry internships and coop-  
9           erative work-study programs; and

10          (4) work with the Directors of the National  
11          Laboratories to increase the participation of stu-  
12          dents from minority institutions in internships, fel-  
13          lowships, training programs, and employment at  
14          those laboratories.

15          (h) **OUTREACH TO ENERGY TRANSITION WORK-**  
16 **ERS.**—The Secretary shall—

17           (1) work with employers and job trainers, in-  
18           cluding apprenticeship and pre-apprenticeship pro-  
19           grams, in preparing energy transition workers for  
20           emerging jobs in energy-related industries (including  
21           manufacturing, engineering, construction, and retro-  
22           fitting jobs in energy-related industries);

23           (2) work with energy transition workers to in-  
24           crease the number of individuals trained for jobs in  
25           energy-related industries (including manufacturing,

1 engineering, construction, and retrofitting jobs in  
2 energy-related industries); and

3 (3) work with labor organizations and energy-  
4 related industry partners to improve opportunities  
5 for energy transition workers to participate in indus-  
6 try internships, cooperative work-study programs,  
7 apprenticeships, and pre-apprenticeships.

8 (i) ENROLLMENT IN TRAINING AND APPRENTICE-  
9 SHIP AND PRE-APPRENTICESHIP PROGRAMS.—The Sec-  
10 retary shall provide assistance to industry, local workforce  
11 development boards, State workforce development boards,  
12 nonprofit organizations, labor organizations, and appren-  
13 ticeship programs in identifying students and other can-  
14 didates, including energy transition workers and underrep-  
15 resented groups, including religious and ethnic minorities,  
16 women, veterans, individuals with disabilities, and socio-  
17 economically disadvantaged individuals, to enroll in train-  
18 ing and apprenticeship programs and pre-apprenticeship  
19 programs for jobs in energy-related industries.

20 (j) GUIDELINES TO DEVELOP SKILLS FOR A MOD-  
21 ERN ENERGY INDUSTRY WORKFORCE.—The Secretary  
22 shall, in collaboration with energy-related industries and  
23 labor organizations, identify the sectors within each en-  
24 ergy-related industry that have the greatest demand for  
25 workers and develop guidelines for the skills necessary to

1 work in those sectors. The Secretary shall identify the sec-  
2 tors in consultation with a broad cross-section of the en-  
3 ergy industry, including relevant energy industry organi-  
4 zations, public and private employers, labor organizations,  
5 postsecondary education institutions, and workforce devel-  
6 opment boards.

7 (k) RULE OF CONSTRUCTION.—Nothing in this sec-  
8 tion authorizes any department, agency, officer, or em-  
9 ployee of the Federal Government to exercise any direc-  
10 tion, supervision, or control over—

11 (1) the curriculum, program of instruction, or  
12 instructional content of any State, local educational  
13 agency, or school; or

14 (2) the selection of library resources, textbooks,  
15 or other printed or published instructional materials  
16 used by any State, local educational agency, or  
17 school.

18 **SEC. 523. ZERO-EMISSION ECONOMY WORKFORCE PILOT**  
19 **PROGRAM.**

20 (a) DEFINITIONS.—In this section:

21 (1) ELIGIBLE ENTITY.—The term “eligible enti-  
22 ty” means a National Laboratory, business, or labor  
23 organization that demonstrates success in placing  
24 graduates of pre-apprenticeship or apprenticeship  
25 programs in jobs relevant to such programs and—

1 (A) is directly involved with zero-emission  
2 electricity technology, energy efficiency, or other  
3 activity that results in a reduction in green-  
4 house gas emissions, as determined by the Sec-  
5 retary;

6 (B) works on behalf of a business or labor  
7 organization that is directly involved with zero-  
8 emission electricity technology, energy effi-  
9 ciency, or other activity that results in a reduc-  
10 tion in greenhouse gas emissions, as determined  
11 by the Secretary;

12 (C) provides services related to—

13 (i) zero-emission electricity technology  
14 deployment and maintenance and energy  
15 efficiency;

16 (ii) grid modernization; or

17 (iii) reduction in greenhouse gas emis-  
18 sions through the use of zero-emission en-  
19 ergy technologies;

20 (D) has knowledge of technician workforce  
21 needs of a National Laboratory or covered facil-  
22 ity of the National Nuclear security Administra-  
23 tion and the associated security requirements of  
24 such laboratory or facility;

1           (E) demonstrates experience in imple-  
2           menting and operating apprenticeship programs  
3           or pre-apprenticeship programs that provide a  
4           direct pathway to an energy-related career; or

5           (F) demonstrates success in placing grad-  
6           uates of pre-apprenticeship or apprenticeship  
7           programs in jobs relevant to such programs.

8           (2) NATIONAL LABORATORY.—The term “Na-  
9           tional Laboratory” means any of the following lab-  
10          oratories owned by the Department of Energy:

11           (A) Ames Laboratory.

12           (B) Argonne National Laboratory.

13           (C) Brookhaven National Laboratory.

14           (D) Fermi National Accelerator Labora-  
15          tory.

16           (E) Idaho National Laboratory.

17           (F) Lawrence Berkeley National Labora-  
18          tory.

19           (G) Lawrence Livermore National Labora-  
20          tory.

21           (H) Los Alamos National Laboratory.

22           (I) National Energy Technology Labora-  
23          tory.

24           (J) National Renewable Energy Labora-  
25          tory.

1 (K) Oak Ridge National Laboratory.

2 (L) Pacific Northwest National Labora-  
3 tory.

4 (M) Princeton Plasma Physics Laboratory.

5 (N) Sandia National Laboratories.

6 (O) Savannah River National Laboratory.

7 (P) Stanford Linear Accelerator Center.

8 (Q) Thomas Jefferson National Accel-  
9 erator Facility.

10 (3) PILOT PROGRAM.—The term “pilot pro-  
11 gram” means the pilot program established under  
12 subsection (b).

13 (b) ESTABLISHMENT.—The Secretary of Energy, in  
14 consultation with the Secretary of Labor, shall establish  
15 a pilot program to provide competitively awarded cost-  
16 shared grants to eligible entities to pay for on-the-job  
17 training of a new or existing employee—

18 (1) to work in zero-emission electricity genera-  
19 tion, energy efficiency, or grid modernization;

20 (2) to work otherwise on the reduction of green-  
21 house gas emissions; or

22 (3) to participate in a pre-apprenticeship pro-  
23 gram that provides a direct pathway to an energy-  
24 related career in construction through one or more  
25 apprenticeship programs.



1 (c) GRANTS.—

2 (1) IN GENERAL.—An eligible entity desiring a  
3 grant under the pilot program shall submit to the  
4 Secretary of Energy an application at such time, in  
5 such manner, and containing such information as  
6 the Secretary of Energy may require.

7 (2) PRIORITY FOR TARGETED COMMUNITIES.—  
8 In providing grants under the pilot program, the  
9 Secretary of Energy shall give priority to an eligible  
10 entity that—

11 (A) recruits employees—

12 (i) from the one or more communities  
13 that are served by the eligible entity; and

14 (ii) that are minorities, women, vet-  
15 erans, individuals from Indian Tribes or  
16 Tribal organizations, or energy transition  
17 workers;

18 (B) provides trainees with the opportunity  
19 to obtain real-world experience; or

20 (C) has fewer than 100 employees; and

21 (D) in the case of a pre-apprenticeship  
22 program, demonstrates—

23 (i) a multi-year record of successfully  
24 recruiting energy transition workers, mi-  
25 norities, women, and veterans for training

1 and supporting such individuals to a suc-  
2 cessful completion of a pre-apprenticeship  
3 program; and

4 (ii) a successful multi-year record of  
5 placing the majority of pre-apprenticeship  
6 program graduates into apprenticeship  
7 programs in the construction industry.

8 (3) USE OF GRANT FOR FEDERAL SHARE.—

9 (A) IN GENERAL.—An eligible entity shall  
10 use a grant received under the pilot program  
11 to—

12 (i) pay the Federal share of the cost  
13 of providing on-the-job training for an em-  
14 ployee, in accordance with subparagraph  
15 (B); or

16 (ii) in the case of a pre-apprenticeship  
17 program—

18 (I) recruiting minorities, women,  
19 and veterans for training;

20 (II) supporting those individuals  
21 in the successful completion of the  
22 pre-apprenticeship program; and

23 (III) carrying out any other ac-  
24 tivity of the pre-apprenticeship pro-  
25 gram, as determined to be appropriate

1 by the Secretary of Labor, in con-  
2 sultation with the Secretary.

3 (B) FEDERAL SHARE AMOUNT.—The Fed-  
4 eral share described in subparagraph (A)(i)  
5 shall not exceed—

6 (i) in the case of an eligible entity  
7 with 20 or fewer employees, 45 percent of  
8 the cost of on-the-job-training for an em-  
9 ployee;

10 (ii) in the case of an eligible entity  
11 with not fewer than 21 employees and not  
12 more than 99 employees, 37.5 percent of  
13 the cost of on-the-job-training for an em-  
14 ployee;

15 (iii) in the case of an eligible entity  
16 with not fewer than 100 employees, 25  
17 percent of the cost of on-the-job-training  
18 for an employee; and

19 (iv) in the case of an eligible entity  
20 that administers a pre-apprenticeship pro-  
21 gram, 75 percent of the cost of the pre-ap-  
22 prenticeship program.

23 (4) EMPLOYER PAYMENT OF NON-FEDERAL  
24 SHARE.—

1           (A) IN GENERAL.—The non-Federal share  
2 of the cost of providing on-the-job training for  
3 an employee under a grant received under the  
4 pilot program shall be paid in cash or in kind  
5 by the employer of the employee receiving the  
6 training or by a nonprofit organization.

7           (B) INCLUSIONS.—The non-Federal share  
8 described in subparagraph (A) may include the  
9 amount of wages paid by the employer to the  
10 employee during the time that the employee is  
11 receiving on-the-job training, as fairly evaluated  
12 by the Secretary of Labor.

13          (5) CONSTRUCTION.—In providing grants under  
14 the pilot program for training, recruitment, and sup-  
15 port relating to construction, eligible entities shall  
16 only include pre-apprenticeship programs that have  
17 an articulation agreement with one or more appren-  
18 ticeship programs.

19          (6) GRANT AMOUNT.—An eligible entity may  
20 not receive more than \$1,000,000 per fiscal year in  
21 grant funds under the pilot program.

22 **SEC. 524. UNIVERSITY ZERO-EMISSION ENERGY LEADER-**  
23 **SHIP PROGRAM.**

24          (a) ESTABLISHMENT.—



1 and development project that does not align directly  
2 with a departmental mission, if the activity for  
3 which assistance is provided promotes a zero-emis-  
4 sion energy transition.”.

5 (2) TABLE OF CONTENTS.—The table of con-  
6 tents for the Energy Policy Act of 2005 is further  
7 amended by adding after the item relating to section  
8 959B the following:

“Sec. 959C. University Zero-Emission Energy Leadership Program.”.

9 (b) REPEAL.—The Energy and Water Development  
10 and Related Agencies Appropriations Act, 2009 is amend-  
11 ed by striking section 313.

12 **SEC. 525. CLIMATE RESILIENCY CORPS.**

13 (a) DEFINITIONS.—In this section:

14 (1) ENERGY TRANSITION WORKERS.—The term  
15 “energy transition workers” means workers, includ-  
16 ing workers employed by contractors or subcontractors,  
17 terminated, laid off from employment, or whose  
18 work-hours have been reduced, on or after the date  
19 of enactment of this Act, from a coal-related facility,  
20 coal-related industry, or other energy-related entity.

21 (2) MEMBERS OF THE RESERVE COMPONENTS  
22 OF THE ARMED FORCES.—The term “members of  
23 the reserve components of the Armed Forces” means  
24 members of the—

1 (A) Army National Guard of the United  
2 States;

3 (B) Army Reserve;

4 (C) Navy Reserve;

5 (D) Marine Corps Reserve;

6 (E) Air National Guard of the United  
7 States;

8 (F) Air Force Reserve; and

9 (G) Coast Guard Reserve.

10 (3) UNDEREMPLOYED.—The term “under-  
11 employed” means individuals who are employed at  
12 less than full-time because they are unable to obtain  
13 full time employment or who are employed at jobs  
14 inadequate to their training or economic needs.

15 (4) VETERANS OF THE ARMED FORCES.—The  
16 term “veterans of the Armed Forces” means a per-  
17 son who served in the active military, naval, or air  
18 service and who was discharged or released under  
19 conditions other than dishonorable.

20 (b) ESTABLISHMENT.—In order to relieve distress  
21 and unemployment in the United States and to provide  
22 for the restoration of depleted natural resources in the  
23 United States and the advancement of an orderly program  
24 of useful public works, the President shall establish and  
25 operate a Climate Resiliency Corps to employ residents of

1 the United States, who are unemployed or underemployed,  
2 in the construction, maintenance, and carrying out of  
3 works of a public nature in connection with, but not lim-  
4 ited to—

5 (1) coastal restoration, including—

6 (A) adaptive management;

7 (B) exposed element relocation, elevation,  
8 or removal;

9 (C) flood and storm surge barrier;

10 (D) sea dikes;

11 (E) seawall or revetment;

12 (F) spatial planning and integrated coastal  
13 zone management planning;

14 (G) temporary and demountable flood de-  
15 fenses;

16 (H) rainwater harvesting;

17 (I) sustainable urban drainage systems;

18 and

19 (J) wet and dry proofing;

20 (2) resilient infrastructure, including—

21 (A) deployment and management of resil-  
22 ient transportation and other infrastructure  
23 systems;

24 (B) sustainable urban underground struc-  
25 tures development; and



1 (C) earthquake resiliency and interaction  
2 of above- and below-ground infrastructure;

3 (3) natural solutions, including—

4 (A) restoration of wetlands, mangroves,  
5 marshes, seagrasses, and oyster reefs, and the  
6 installation of living shorelines;

7 (B) green roofs;

8 (C) rain gardens;

9 (D) bioswales;

10 (E) urban tree canopies; and

11 (F) permeable pavements; and

12 (4) other activities that are deemed necessary  
13 by the President, with guidance from the Secretary  
14 of Energy, the Secretary of Agriculture, the Sec-  
15 retary of the Interior, the Administrator of the Envi-  
16 ronmental Protection Agency, or other relevant  
17 agency leaders.

18 (c) ROLE OF FEDERAL AGENCIES.—To operate the  
19 Climate Resiliency Corps, the President may utilize exist-  
20 ing Federal departments and agencies, including the De-  
21 partment of Labor, the Department of Defense, the Na-  
22 tional Guard Bureau, the Department of the Interior, the  
23 Department of Agriculture, the Army Corps of Engineers,  
24 the Department of Transportation, the Department of En-

1 ergy, the Environmental Protection Agency, and Federal  
2 governmental corporations.

3 (d) CONTRACT AUTHORITY.—(1) For the purpose of  
4 carrying out this section, the President may enter into  
5 such contracts or agreements with States as may be nec-  
6 essary, including provisions for utilization of existing State  
7 administrative agencies.

8 (2) States entering into such contracts or agreements  
9 shall provide written assurances to the President that all  
10 laborers and mechanics employed by contractors or sub-  
11 contractors in the performance of construction work fi-  
12 nanced in whole or in part with assistance under this sec-  
13 tion shall be paid wages at rates not less than those pre-  
14 vailing on similar work in the locality as determined by  
15 the Secretary of Labor in accordance with subchapter IV  
16 of chapter 31 of title 40, United States Code.

17 (e) ACQUISITION OF REAL PROPERTY.—The Presi-  
18 dent, or the head of any department or agency authorized  
19 by the President to construct any project or to carry on  
20 any public works under this Act, may acquire real prop-  
21 erty for such project or public work by purchase, donation,  
22 condemnation, or otherwise.

23 (f) ADMINISTRATION.—

24 (1) EMPLOYMENT PREFERENCE.—If the Presi-  
25 dent determines that amounts appropriated to carry

1 out a Climate Resiliency Corps under this Act for a  
2 fiscal year will be insufficient to employ all of the  
3 citizens of the United States described in section (b)  
4 who are seeking or likely to seek employment in the  
5 Climate Resiliency Corps and continue the employ-  
6 ment of current employees who desire to remain in  
7 the Climate Resiliency Corps, the President shall  
8 give priority to the hiring of additional persons in  
9 the Climate Resiliency Corps to—

10 (A) energy transition workers;

11 (B) unemployed veterans of the Armed  
12 Forces and unemployed members of the reserve  
13 components of the Armed Forces;

14 (C) unemployed citizens who have ex-  
15 hausted their entitlement to unemployment  
16 compensation;

17 (D) unemployed citizens, who immediately  
18 before employment in the Climate Resiliency  
19 Corps, are eligible for unemployment compensa-  
20 tion payable under any State law or Federal  
21 unemployment compensation law, including any  
22 additional compensation or extended compensa-  
23 tion under such laws; and

1           (E) other citizens from minority groups,  
2           including, religious and ethnic minorities,  
3           women, and individuals with disabilities.

4           (2) HOUSING AND CARE OF EMPLOYEES.—The  
5           President may provide housing for persons employed  
6           in the Climate Resiliency Corps and furnish them  
7           with such subsistence, clothing, medical attendance  
8           and hospitalization, and cash allowance, as may be  
9           necessary, during the period they are so employed.

10          (3) TRANSPORTATION.—The President may  
11          provide for the transportation of persons employed  
12          in the Climate Resiliency Corps to and from the  
13          places of employment.

14          (4) NON-DISCRIMINATION.—In employing citi-  
15          zens for the Climate Resiliency Corps, no discrimina-  
16          tion shall occur, in accordance with Federal employ-  
17          ment law, except that no individual under conviction  
18          for crime and serving sentence therefore shall be em-  
19          ployed under the provisions of this Act.

20          (g) USE OF UNOBLIGATED FUNDS APPROPRIATED  
21          FOR PUBLIC WORKS.—

22          (1) USE OF EXISTING FUNDS.—The President  
23          may use any moneys previously appropriated for  
24          public works and unobligated as of the date of the

1 enactment of this Act to establish and operate a Cli-  
2 mate Resiliency Corps under this section.

3 (2) USE TO RELIEVE UNEMPLOYMENT.—Not  
4 less than 80 percent of the funds utilized pursuant  
5 to this subsection must be used to provide for the  
6 employment of individuals under this section.

7 (3) EXCEPTIONS.—Paragraph (1) shall not  
8 apply to—

9 (A) unobligated moneys appropriated for  
10 public works on which actual construction has  
11 been commenced as of the date of the enact-  
12 ment of this Act or may be commenced within  
13 90 days after that date; and

14 (B) maintenance funds for river and har-  
15 bor improvements already allocated as of the  
16 date of the enactment of this Act.

17 (h) TERMINATION.—The authority of the President  
18 to establish and operate a Climate Resilience Corps under  
19 this section expires on September 30, 2035.

20 **SEC. 526. AUTHORIZATION OF APPROPRIATIONS.**

21 There are authorized to be appropriated to carry out  
22 this subtitle such sums as may be necessary for each of  
23 fiscal years 2021 through 2035.

○