To invest in the energy and outdoor infrastructure of the United States to deploy new and innovative technologies, update existing infrastructure to be reliable and resilient, and secure energy infrastructure against physical and cyber threats, and for other purposes.

IN THE SENATE OF THE UNITED STATES

introduced the following bill; which was read twice and referred to the Committee on __________

A BILL

To invest in the energy and outdoor infrastructure of the United States to deploy new and innovative technologies, update existing infrastructure to be reliable and resilient, and secure energy infrastructure against physical and cyber threats, and for other purposes.

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

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) Short Title.—This Act may be cited as the
[“Energy Infrastructure Act”].

(b) Table of Contents.—The table of contents for
this Act is as follows:
Sec. 1. Short title; table of contents.
Sec. 2. Definitions.

TITLE I—GRID INFRASTRUCTURE AND RESILIENCY

Subtitle A—Grid Infrastructure Resilience and Reliability

Sec. 1001. Preventing outages and enhancing the resilience of the electric grid.
Sec. 1002. Hazard mitigation using disaster assistance.
Sec. 1003. Electric grid reliability and resilience research, development, and demonstration.
Sec. 1004. Utility demand response.
Sec. 1005. Siting of interstate electric transmission facilities.
Sec. 1006. Rulemaking to increase the effectiveness of interregional transmission planning.
Sec. 1007. Transmission facilitation program.
Sec. 1008. Deployment of technologies to enhance grid flexibility.
Sec. 1009. State energy security plans.
Sec. 1010. State energy program.
Sec. 1011. Power marketing administration transmission borrowing authority.

Subtitle B—Cybersecurity

Sec. 1101. Enhancing grid security through public-private partnerships.
Sec. 1102. Energy Cyber Sense program.
Sec. 1103. Incentives for advanced cybersecurity technology investment.
Sec. 1104. Rural and municipal utility advanced cybersecurity grant and technical assistance program.
Sec. 1105. Enhanced grid security.

Subtitle C—Broadband

Sec. 1201. Enabling middle mile broadband infrastructure.

TITLE II—SUPPLY CHAINS FOR CLEAN ENERGY TECHNOLOGIES

Sec. 2001. Earth Mapping Resources Initiative.
Sec. 2004. USGS energy and minerals research facility.
Sec. 2005. Rare earth elements demonstration facility.
Sec. 2006. Critical minerals supply chains and reliability.
Sec. 2007. Battery processing and manufacturing.
Sec. 2008. Electric drive vehicle battery recycling and second-life applications program.
Sec. 2009. Advanced energy manufacturing and recycling grant program.

TITLE III—FUELS AND TECHNOLOGY INFRASTRUCTURE INVESTMENTS

Subtitle A—Carbon Capture, Utilization, Storage, and Transportation Infrastructure

Sec. 3001. Findings.
Sec. 3002. Carbon utilization program.
Sec. 3003. Carbon capture technology program.
Sec. 3004. Carbon dioxide transportation infrastructure finance and innovation.
Sec. 3005. Carbon storage validation and testing.
Sec. 3006. Secure geologic storage permitting.
Sec. 3007. Geologic carbon sequestration on the outer Continental Shelf.
Sec. 3008. Carbon removal.

Subtitle B—Hydrogen Research and Development

Sec. 3101. Findings; purpose.
Sec. 3102. Definitions.
Sec. 3103. Clean hydrogen research and development program.
Sec. 3104. Additional clean hydrogen programs.
Sec. 3105. Clean hydrogen production qualifications.

Subtitle C—Nuclear Energy Infrastructure

Sec. 3201. Infrastructure planning for micro nuclear reactors.
Sec. 3202. Property interests relating to certain projects and protection of information relating to certain agreements.
Sec. 3203. Civil nuclear credit program.

Subtitle D—Miscellaneous

Sec. 3301. Solar energy technologies on current and former mine land.
Sec. 3302. Clean energy demonstration program on current and former mine land.
Sec. 3303. Study and report on hyperloop technologies.
Sec. 3304. Hydropower.

TITLE IV—ENABLING ENERGY INFRASTRUCTURE INVESTMENT AND DATA COLLECTION

Subtitle A—Department of Energy Loan Program

Sec. 4001. Department of Energy loan programs.

Subtitle B—Energy Information Administration

Sec. 4101. Definitions.
Sec. 4102. Data collection in the electricity sector.
Sec. 4103. Expansion of energy consumption surveys.
Sec. 4104. Data collection on electric vehicle integration with the electricity grids.
Sec. 4105. Plan for the forecasting of demand for minerals used in the energy sector.
Sec. 4106. Expansion of international energy data.
Sec. 4107. Plan for the National Energy Modeling System.
Sec. 4108. Report on costs of carbon abatement in the electricity sector.
Sec. 4109. Harmonization of efforts and data.

Subtitle C—Miscellaneous

Sec. 4201. Consideration of measures to promote greater electrification of the transportation sector.

TITLE V—ENERGY EFFICIENCY AND BUILDING INFRASTRUCTURE

Subtitle A—Residential and Commercial Energy Efficiency

Sec. 5001. Definitions.
Sec. 5002. Energy efficiency revolving loan fund capitalization grant program.
Sec. 5003. Energy auditor training grant program.

Subtitle B—Buildings

Sec. 5101. Cost-effective codes implementation for efficiency and resilience.
Sec. 5102. Building, training, and assessment centers.
Sec. 5103. Career skills training.
Sec. 5104. Commercial building energy consumption information sharing.

Subtitle C—Industrial Energy Efficiency

PART I—INDUSTRY

Sec. 5201. Future of industry program and industrial research and assessment centers.
Sec. 5202. Sustainable manufacturing initiative.

PART II—SMART MANUFACTURING

Sec. 5211. Definitions.
Sec. 5212. Leveraging existing agency programs to assist small and medium manufacturers.
Sec. 5213. Leveraging smart manufacturing infrastructure at National Laboratories.
Sec. 5214. State manufacturing leadership.
Sec. 5215. Report.

Subtitle D—Schools and Nonprofits

Sec. 5301. Grants for energy efficiency improvements and renewable energy improvements at public school facilities.
Sec. 5302. Energy efficiency materials pilot program.

Subtitle E—Miscellaneous

Sec. 5401. Weatherization assistance program.
Sec. 5402. Energy Efficiency and Conservation Block Grant Program.
Sec. 5403. Survey, analysis, and report on employment and demographics in the energy, energy efficiency, and motor vehicle sectors of the United States.
Sec. 5404. Assisting Federal Facilities with Energy Conservation Technologies grant program.
Sec. 5405. Rebates.
Sec. 5406. Model guidance for combined heat and power systems and waste heat to power systems.

TITLE VI—METHANE REDUCTION INFRASTRUCTURE

Sec. 6001. Orphaned well site plugging, remediation, and restoration.
Sec. 6002. NEPA review of certain pipeline placement activities.

TITLE VII—ABANDONED MINE LAND RECLAMATION

Sec. 7001. Abandoned Mine Reclamation Fund direct appropriations.

TITLE VIII—NATURAL RESOURCES-RELATED INFRASTRUCTURE, WILDFIRE MANAGEMENT, AND ECOSYSTEM RESTORATION
Sec. 8001. Forest Service Legacy Road and Trail Remediation Program.
Sec. 8002. Study and report on feasibility of revegetating reclaimed mine sites.
Sec. 8003. Wildfire risk reduction.
Sec. 8004. Ecosystem restoration.

TITLE IX—WESTERN WATER INFRASTRUCTURE

Sec. 9001. Western water infrastructure.

TITLE X—ENERGY ACT OF 2020 FUNDING

Sec. 10001. Energy storage demonstration projects.
Sec. 10002. Advanced reactor demonstration program.
Sec. 10003. Mineral security projects.
Sec. 10004. Carbon capture demonstration and pilot programs.
Sec. 10005. Direct air capture technologies prize competitions.
Sec. 10006. Water power projects.
Sec. 10007. Renewable energy projects.
Sec. 10008. Industrial emissions demonstration projects.
Sec. 10009. Availability of amounts.

TITLE XI—WAGE RATE REQUIREMENTS

Sec. 11001. Wage rate requirements.

SEC. 2. DEFINITIONS.

In this Act:

(1) DEPARTMENT.—The term “Department” means the Department of Energy.

(2) SECRETARY.—The term “Secretary” means the Secretary of Energy.

TITLE I—GRID INFRASTRUCTURE AND RESILIENCY

Subtitle A—Grid Infrastructure Resilience and Reliability

SEC. 1001. PREVENTING OUTAGES AND ENHANCING THE RESILIENCE OF THE ELECTRIC GRID.

(a) DEFINITIONS.—In this section:

(1) CALIFORNIA ELIGIBLE ENTITY.—The term “California eligible entity” means an entity de-
scribed in any of clauses (i) through (vi) of paragraph (2)(A) that is located in the State.

(2) ELIGIBLE ENTITY.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the term “eligible entity” means—

(i) an electric grid operator;

(ii) an electricity generator;

(iii) a transmission owner or operator;

(iv) a distribution provider;

(v) a fuel supplier; and

(vi) any other relevant entity, as determined by the Secretary.

(B) EXCLUSIONS.—The term “eligible entity” does not include an entity located in the State.

(3) EXTREME WEATHER.—

(A) IN GENERAL.—The term “extreme weather” means a weather phenomenon that—

(i) occurs outside of the historical frequency prior to 1990; or

(ii) is unexpected, unusual, severe, or seasonal.

(B) INCLUSIONS.—The term “extreme weather” includes—
(i) a tornado;
(ii) a thunderstorm;
(iii) an ice storm;
(iv) a heat wave;
(v) flooding;
(vi) drought;
(vii) high winds; and
(viii) mudslides.

(4) **Natural Disaster.**—The term “natural disaster” has the meaning given the term in section 602(a) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5195a(a)).

(5) **Power Line.**—The term “power line” includes a transmission line or a distribution line, as applicable.

(6) **Program.**—The term “program” means the program established under subsection (b).

(7) **Resilience Event.**—The term “resilience event” means an event in which, due to extreme weather, a wildfire, or any other natural disaster, operations of the electric grid are disrupted, preventively shut off, or cannot operate safely.

(8) **State.**—The term “State” means the State of California.
(b) Establishment of Program.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish a program under which the Secretary shall make grants to eligible entities and the State in accordance with this section.

(c) Grants to Eligible Entities.—

(1) In general.—The Secretary may make a grant under the program to an eligible entity to carry out activities that—

(A) are supplemental to existing hardening efforts of the eligible entity planned for any given year; and

(B)(i) reduce the risk of any power lines owned or operated by the eligible entity causing a wildfire; or

(ii) increase the ability of the eligible entity to reduce the likelihood and consequences of resilience events.

(2) Application.—

(A) In general.—An eligible entity desiring a grant under the program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.
(B) REQUIREMENT.—As a condition of receiving a grant under the program, an eligible entity shall submit to the Secretary, as part of the application of the eligible entity submitted under subparagraph (A), a report detailing past, current, and future efforts by the eligible entity to reduce the likelihood and consequences of resilience events.

(3) LIMITATION.—The Secretary may not award a grant to an eligible entity in an amount that is greater than the total amount that the eligible entity has spent in the previous 3 years on efforts to reduce the likelihood and consequences of resilience events.

(4) PRIORITY.—In making grants to eligible entities under the program, the Secretary shall give priority to projects that, in the determination of the Secretary, will generate the greatest community benefit in reducing the likelihood and consequences of resilience events.

(5) SMALL UTILITIES SET ASIDE.—The Secretary shall ensure that not less than 50 percent of the amounts made available to eligible entities under the program are made available to eligible entities
that sell not more than 4,000,000 megawatt hours
of electricity per year.

(d) GRANTS TO THE STATE.—

(1) IN GENERAL.—The Secretary, in accord-
ance with this subsection, may make grants under
the program to the State, which the State may use
to award grants to California eligible entities.

(2) ANNUAL APPLICATION.—

(A) IN GENERAL.—For each fiscal year, to
be eligible to receive a grant under this sub-
section, the State shall submit to the Secretary
an application that includes a plan described in
subparagraph (B).

(B) PLAN REQUIRED.—A plan prepared by
the State for purposes of an application de-
scribed in subparagraph (A) shall—

(i) describe the criteria and methods
that will be used by the State to award
grants to California eligible entities;

(ii) be adopted after notice and a pub-
lic hearing; and

(iii) describe the proposed funding
distributions and recipients of the grants
to be provided by the State.
(3) OVERSIGHT.—The Secretary shall ensure that each grant provided to the State under the program is allocated, pursuant to the applicable State plan, to California eligible entities for projects within the State.

(4) PRIORITY.—In making grants to California eligible entities using funds made available to the State under the program, the State shall give priority to projects that, in the determination of the State, will generate the greatest community benefit in reducing the likelihood and consequences of resilience events.

(5) SMALL UTILITIES SET ASIDE.—The State shall ensure that not less than 10 percent of the amounts made available to California eligible entities from funds made available to the State under the program are made available to California eligible entities that sell not more than 4,000,000 megawatt hours of electricity per year.

(6) TECHNICAL ASSISTANCE AND ADMINISTRATIVE EXPENSES.—Of the amounts made available to the State under the program each fiscal year, the State may use not more than 5 percent for—

(A) providing technical assistance under subsection (g)(1)(A); and
(B) administrative expenses associated with the program.

(7) Matching Requirement.—The State shall be required to match 15 percent of the amount of each grant provided to the State under the program.

(e) Use of Grants.—

(1) In General.—A grant awarded to an eligible entity or a California eligible entity under the program may be used for activities, technologies, equipment, and hardening measures to reduce the likelihood and consequences of resilience events, including—

(A) weatherization technologies and equipment;

(B) fire-resistant technologies and fire prevention systems;

(C) monitoring technologies;

(D) the undergrounding of electrical equipment;

(E) utility pole management;

(F) the relocation of power lines or the reconductoring of power lines with low-sag, advanced conductors;

(G) vegetation and fuel-load management;
(H) the use or construction of distributed energy resources for enhancing system adaptive capacity during resilience events, including—

(i) microgrids; and

(ii) battery-storage subcomponents;

(I) adaptive protection technologies;

(J) advanced modeling technologies;

(K) hardening of power lines, facilities, substations, of other systems; and

(L) the replacement of old overhead conductors and underground cables.

(2) **Prohibited Uses.**—

(A) **In General.**—A grant awarded to an eligible entity or a California eligible entity under the program may not be used for—

(i) construction of a new—

(I) electric generating facility; or

(II) large-scale battery-storage facility that is not used for enhancing system adaptive capacity during resilience events; or

(ii) cybersecurity.

(B) **Certain Investments Eligible for Recovery.**—
(i) IN GENERAL.—An eligible entity or California eligible entity may not seek cost recovery for the portion of the cost of any system, technology, or equipment that is funded through a grant awarded under the program.

(ii) SAVINGS PROVISION.—Nothing in this subparagraph prohibits an eligible entity or California eligible entity from recovering through traditional or incentive-based ratemaking any portion of an investment in a system, technology, or equipment that is not funded by a grant awarded under the program.

(f) DISTRIBUTION OF FUNDING.—Of the amounts made available to carry out the program for a fiscal year, the Secretary shall ensure that—

(1) not less than 80 percent is used to award grants to eligible entities under subsection (c); and

(2) not more than 20 percent is used to make grants to the State under subsection (d).

(g) TECHNICAL AND OTHER ASSISTANCE.—

(1) IN GENERAL.—The Secretary and the State may—
(A) provide technical assistance and facilitate the distribution and sharing of information to reduce the likelihood and consequences of resilience events; and

(B) promulgate consumer-facing information and resources to inform the public of best practices and resources relating to reducing the likelihood and consequences of resilience events.

(2) USE OF FUNDS BY THE SECRETARY.—Of the amounts made available to the Secretary to carry out the program each fiscal year, the Secretary may use not more than 5 percent for—

(A) providing technical assistance under paragraph (1)(A); and

(B) administrative expenses associated with the program.

(h) MATCHING REQUIREMENT.—

(1) IN GENERAL.—Except as provided in paragraph (2), an eligible entity or California eligible entity that receives a grant under this section shall be required to match 100 percent of the amount of the grant.

(2) EXCEPTION FOR SMALL UTILITIES.—With respect to an eligible entity or California eligible entity that sells not more than 4,000,000 megawatt
hours of electricity per year, the eligible entity or California eligible entity shall be required to match $1 \text{G7 T2L K3}$ of the amount of the grant.

(i) Biennial Report to Congress.—

(1) In general.—Not later than 2 years after the date of enactment of this Act, and every 2 years thereafter through 2026, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the program.

(2) Requirements.—The report under paragraph (1) shall include information and data on—

(A) the costs of the projects for which grants are awarded to eligible entities and California eligible entities;

(B) the types of activities, technologies, equipment, and hardening measures funded by those grants; and

(C) the extent to which the ability of the power grid to withstand resilience events has increased.

(j) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out the program, out of any amounts in the
Treasury not otherwise appropriated, $1,000,000,000 for each of fiscal years 2022 through 2026.

SEC. 1002. HAZARD MITIGATION USING DISASTER ASSISTANCE.

Section 404(f)(12) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5170c(f)(12)) is amended—

(1) by inserting “and wildfire” after “wind-storm”;

(2) by striking “including replacing” and inserting the following: “including—

“(A) replacing”;

(3) in subparagraph (A) (as so designated)—

(A) by inserting “, wildfire,” after “extreme wind”; and

(B) by adding “and” after the semicolon at the end; and

(4) by adding at the end the following:

“(B) the installation of fire-resistant wires and infrastructure and the undergrounding of wires;”.

SEC. 1003. ELECTRIC GRID RELIABILITY AND RESILIENCE RESEARCH, DEVELOPMENT, AND DEMONSTRATION.

(a) DEFINITIONS.—In this section:
(1) Federal Financial Assistance.—The term “Federal financial assistance” has the meaning given the term in section 200.1 of title 2, Code of Federal Regulations.

(2) Indian Tribe.—The term “Indian Tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).

(b) Energy Infrastructure Federal Financial Assistance Program.—

(1) Definitions.—In this subsection:

(A) Eligible Entity.—The term “eligible entity” means each of—

(i) a State;

(ii) a combination of 2 or more States;

(iii) an Indian Tribe;

(iv) a unit of local government; and

(v) a public utility commission.

(B) Program.—The term “program” means the competitive Federal financial assistance program established under paragraph (2).

(2) Establishment.—Not later than 90 days after the date of enactment of this Act, the Secretary shall establish a program, to be known as the...
“Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency”, to provide, on a competitive basis, Federal financial assistance to eligible entities to carry out the purposes described in paragraph (3).

(3) PURPOSES.—The purposes of the program are—

(A) to demonstrate innovative approaches to transmission, storage, and distribution infrastructure to harden and enhance resilience and reliability; and

(B) to demonstrate new approaches to enhance regional grid resilience, implemented through States by public and publicly regulated entities on a cost-shared basis.

(4) APPLICATIONS.—To be eligible to receive Federal financial assistance under the program, an eligible entity shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including a description of—

(A) how the Federal financial assistance would be used;

(B) the expected beneficiaries, and
(C) in the case of a proposal from an eligible entity described in paragraph (1)(A)(ii), how the proposal would improve regional energy infrastructure.

(5) **Selection.**—The Secretary shall select eligible entities to receive Federal financial assistance under the program on a competitive basis.

(6) **Cost Share.**—Section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352) shall apply to Federal financial assistance provided under the program.

(7) **Appropriations.**—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this subsection, out of any amounts in the Treasury not otherwise appropriated, $1,000,000,000 for each of fiscal years 2022 through 2026.

(c) **Energy Improvement in Rural or Remote Areas.**—

(1) **Definition of Rural or Remote Area.**—In this subsection, the term “rural or remote area” means a city, town, or unincorporated area that has a population of not more than 10,000 inhabitants.
(2) Required activities.—The Secretary shall carry out activities to improve in rural or remote areas of the United States—

(A) the resilience, safety, reliability, and availability of energy; and

(B) environmental protection from adverse impacts of energy generation.

(3) Research and information sharing.—The Secretary, the Secretary of the Interior, the Commandant of the Coast Guard, and the Secretary of State shall seek to enter into a partnership with the member states of the Arctic Council—

(A) to conduct research and share information on—

(i) the effects of oil spills; and

(ii) the effectiveness of measures to reduce the risk of oil spills; and

(B) to develop an international guideline for oil spill preparedness and response in the Arctic.

(4) Federal financial assistance.—The Secretary, in consultation with the Secretary of Interior, may provide Federal financial assistance to rural or remote areas for the purpose of—
(A) overall cost-effectiveness of energy generation, transmission, or distribution systems;

(B) siting or upgrading transmission and distribution lines;

(C) reducing greenhouse gas emissions;

(D) providing or modernizing electric generation facilities; and

(E) increasing energy efficiency.

(5) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this subsection, out of any amounts in the Treasury not otherwise appropriated, $200,000,000 for each of fiscal years 2022 through 2026.

(d) Energy Infrastructure Resilience Framework.—

(1) In general.—The Secretary, in collaboration with the Secretary of Homeland Security, the Federal Energy Regulatory Commission, the North American Electric Reliability Corporation, and interested energy infrastructure stakeholders, shall develop common analytical frameworks, tools, metrics, and data to assess the resilience, reliability, safety, and security of energy infrastructure in the United States, including by developing and storing an inven-
tory of easily transported high-voltage recovery transformers and other required equipment.

(2) ASSESSMENT AND REPORT.—

(A) ASSESSMENT.—The Secretary shall carry out an assessment of—

(i) with respect to the inventory of high-voltage recovery transformers, new transformers, and other equipment proposed to be developed and stored under paragraph (1)—

(I) the policies, technical specifications, and logistical and program structures necessary to mitigate the risks associated with the loss of high-voltage recovery transformers;

(II) the technical specifications for high-voltage recovery transformers;

(III) where inventory of high-voltage recovery transformers should be stored;

(IV) the quantity of high-voltage recovery transformers necessary for the inventory;
(V) how the stored inventory of high-voltage recovery transformers would be secured and maintained;

(VI) how the high-voltage recovery transformers may be transported;

(VII) opportunities for developing new flexible advanced transformer designs; and

(VIII) whether new Federal regulations or cost-sharing requirements are necessary to carry out the storage of high-voltage recovery transformers;

and

(ii) any efforts carried out by industry as of the date of the assessment—

(I) to share transformers and equipment;

(II) to develop plans for next generation transformers; and

(III) to plan for surge and long-term manufacturing of, and long-term standardization of, transformer designs.

(B) REPORT.—Not later than 180 days after the date of enactment of this Act, the Sec-
secretary shall submit to Congress a report describing the results of the assessment carried out under subparagraph (A).

SEC. 1004. UTILITY DEMAND RESPONSE.

(a) Consideration of Demand-Response Standard.—

(1) In general.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

“(20) Demand-response practices.—

“(A) In general.—Each electric utility shall promote the use of demand-response practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand.

“(B) Rate recovery.—

“(i) In general.—Each State regulatory authority shall consider establishing rate mechanisms allowing an electric utility with respect to which the State regulatory authority has ratemaking authority to timely recover the costs of promoting demand-response practices in accordance with subparagraph (A).
“(ii) NONREGULATED ELECTRIC UTILITIES.—A nonregulated electric utility may establish rate mechanisms for the timely recovery of the costs of promoting demand-response practices in accordance with subparagraph (A).”.

(2) COMPLIANCE.—

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

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

“(B) Not later than 2 years after the date of enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which the State has ratemaking authority), and each nonregulated electric utility shall complete the consideration and make the determination under section
111 with respect to the standard established by paragraph (20) of section 111(d).”.

(B) FAILURE TO COMPLY.—

   (i) IN GENERAL.—Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended—

   (I) by striking “such paragraph (14)” and all that follows through “paragraphs (16)” and inserting “such paragraph (14). In the case of the standard established by paragraph (15) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of that paragraph (15). In the case of the standards established by paragraphs (16)”;

   (II) by adding at the end the following: “In the case of the standard established by paragraph (20) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be
a reference to the date of enactment
of that paragraph (20).”.

(ii) TECHNICAL CORRECTION.—Para-
graph (2) of section 1254(b) of the Energy
Policy Act of 2005 (Public Law 109–58;
119 Stat. 971) is repealed and the amend-
ment made by that paragraph (as in effect
on the day before the date of enactment of
this Act) is void, and section 112(d) of the
Public Utility Regulatory Policies Act of
1978 (16 U.S.C. 2622(d)) shall be in ef-
fect as if that amendment had not been en-
acted.

(C) PRIOR STATE ACTIONS.—

(i) IN GENERAL.—Section 112 of the
Public Utility Regulatory Policies Act of
1978 (16 U.S.C. 2622) is amended by add-
ing at the end the following:

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

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

“(3) the State legislature has voted on the implementation of the standard (or a comparable standard) for the electric utility.”.


(I) by striking “this subsection” each place it appears and inserting “this section”; and

(II) by adding at the end the following: “In the case of the standard established by paragraph (20) of section 111(d), the reference contained in this section to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of that paragraph (20).”.
(b) Optional Features of State Energy Conservation Plans.—Section 362(d) of the Energy Policy and Conservation Act (42 U.S.C. 6322(d)) is amended—

(1) in paragraph (16), by striking “and” at the end;

(2) by redesignating paragraph (17) as paragraph (18); and

(3) by inserting after paragraph (16) the following:

“(17) programs that promote the installation and use of demand-response technology and demand-response practices; and”.

(c) Federal Energy Management Program.—Section 543(i) of the National Energy Conservation Policy Act (42 U.S.C. 8253(i)) is amended—

(1) in paragraph (1)—

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

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

(C) by adding at the end the following:

“(C) to reduce energy consumption during periods of unusually high electricity or natural gas demand.”; and

(2) in paragraph (3)(A)—
(A) in clause (v), by striking “and” at the end;

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

(C) by adding at the end the following:

“(vi) promote the installation of demand-response technology and the use of demand-response practices in Federal buildings.”.

(d) COMPONENTS OF ZERO-NET-ENERGY COMMERCIAL BUILDINGS INITIATIVE.—Section 422(d)(3) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17082(d)) is amended by inserting “(including demand-response technologies, practices, and policies)” after “policies”.

SEC. 1005. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.

(a) DESIGNATION OF NATIONAL INTEREST ELECTRIC TRANSMISSION CORRIDORS.—Section 216(a) of the Federal Power Act (16 U.S.C. 824p(a)) is amended—

(1) in paragraph (1)—

(A) by inserting “and Indian Tribes” after “affected States”; and

(B) by inserting “capacity constraints and” before “congestion”;

(2) in paragraph (2)—

   (A) by striking “After” and inserting “Not less frequently than once every 3 years, the Secretary, after”; and

   (B) by striking “affected States” and all that follows through the period at the end and inserting the following: “affected States and Indian Tribes), shall issue a report, based on the study under paragraph (1) or other information relating to electric transmission capacity constraints and congestion, which may designate as a national interest electric transmission corridor any geographic area that—

   “(i) is experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers; or

   “(ii) is expected to experience such energy transmission capacity constraints or congestion.”;

(3) in paragraph (3)—

   (A) by striking “The Secretary shall conduct the study and issue the report in consultation” and inserting “Not less frequently than once every 3 years, the Secretary, in conducting
the study under paragraph (1) and issuing the report under paragraph (2), shall consult”; and

(4) in paragraph (4)—

(A) in subparagraph (C), by inserting “or energy security” after “independence”;  

(B) in subparagraph (D), by striking “and” at the end;  

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

(D) by adding at the end the following:

“(F) the designation would—

“(i) enhance the ability of facilities that generate or transmit renewable energy, low-emission energy, or emission-free energy to connect to the electric grid;  

“(ii) promote electrification of other sectors, including the transportation sector; or  

“(iii) facilitate other public policies to decarbonize the grid;  

“(G) the designation—

“(i) maximizes existing rights-of-way, including along highways, brownfields, and rail-

ways; and
“(ii) avoids, to the maximum extent practicable, sensitive environmental areas and cultural heritage sites; and

“(H) the designation would result in a reduction in the cost to purchase electric energy for consumers.”.

(b) CONSTRUCTION PERMIT.—Section 216(b) of the Federal Power Act (16 U.S.C. 824p(b)) is amended—

(1) in paragraph (1)—

(A) in subparagraph (A)(ii), by inserting “or interregional benefits” after “interstate benefits”; and

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

“(C) a State commission or other entity that has authority to approve the siting of the facilities—

“(i) has not approved or denied an application seeking approval pursuant to applicable law by the date that is 1 year after the later of—

“(I) the date on which the application was filed; and

“(II) the date on which the relevant national interest electric transmission cor-
rider was designated by the Secretary under subsection (a);

“(ii) has conditioned its approval in such a manner that the proposed construction or modification will not significantly reduce transmission congestion in interstate commerce or is not economically feasible; or

“(iii) has denied an application seeking approval pursuant to applicable law;”.

(c) RIGHTS-OF-WAY.—Section 216(e)(1) of the Federal Power Act (16 U.S.C. 824p(e)(1)) is amended by striking “facilities, the” and inserting “facilities and, in the determination of the Commission, the permit holder has made good faith efforts to engage with landowners and other stakeholders early in the applicable permitting process, the”.

(d) INTERSTATE COMPACTS.—Section 216(i) of the Federal Power Act (16 U.S.C. 824p(i)) is amended—

(1) in paragraph (2), by striking “may” and inserting “shall”; and

(2) in paragraph (4), by striking “the members” and all that follows through the period at the end and inserting the following: “the Secretary determines that the members of the compact are in disagreement after the later of—
“(A) the date that is 1 year after the date on which the relevant application for the facility was filed; and

“(B) the date that is 1 year after the date on which the relevant national interest electric transmission corridor was designated by the Secretary under subsection (a).”.

SEC. 1006. RULEMAKING TO INCREASE THE EFFECTIVENESS OF INTERREGIONAL TRANSMISSION PLANNING.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Federal Energy Regulatory Commission shall initiate a rulemaking addressing—

(1) the effectiveness of existing planning processes for identifying interregional transmission projects that provide economic, reliability, operational, public policy, and environmental benefits (including reductions in carbon emissions), taking into consideration the public interest, the integrity of markets, and the protection of consumers;

(2) changes to the processes described in paragraph (1) to ensure that efficient, cost-effective, and broadly beneficial interregional transmission solu-
tions are selected for cost allocation, taking into consideration—

(A) the public interest;
(B) the integrity of markets;
(C) the protection of consumers;
(D) the broad range of economic, reliability, operational, public policy, and environmental benefits that interregional transmission provides, including reductions in carbon emissions;
(E) the need for single projects to secure approvals based on a comprehensive assessment of the multiple benefits provided;
(F) that projects that meet interregional benefit criteria should not be subject to subsequent reassessment by transmission planning authorities;
(G) the importance of synchronization of planning processes in neighboring regions, such as using a joint model on a consistent timeline with a single set of needs, input assumptions, and benefit metrics;
(H) that evaluation of long-term scenarios should align with the expected life of a transmission asset;
(I) that transmission planning authorities should allow for the identification and joint evaluation of alternatives proposed by stakeholders;

(J) that interregional planning should be done regularly and not less frequently than once every 3 years; and

(K) the elimination of arbitrary project voltage, size, or cost requirements for interregional solutions; and

(3) cost allocation methodologies that reflect the multiple benefits provided by interregional transmission solutions, including economic, reliability, operational, public policy, and environmental benefits (including reductions in carbon emissions).

(b) TIMING.—Not later than 18 months after the date of enactment of this Act, the Federal Energy Regulatory Commission shall promulgate a final rule to complete the rulemaking initiated under subsection (a).

SEC. 1007. TRANSMISSION FACILITATION PROGRAM.

(a) DEFINITIONS.—In this section:

(1) CAPACITY CONTRACT.—The term “capacity contract” means a contract entered into by the Secretary and an eligible entity under subsection
(f)(1)(A) for the right to the use of the transmission capacity of an eligible project.

(2) ELIGIBLE ENTITY.—The term "eligible entity" means a non-Federal entity seeking to carry out an eligible project.

(3) ELIGIBLE PROJECT.—

(A) IN GENERAL.—The term "eligible project" means a project for the construction or upgrading of 1 or more electric power transmission lines that—

(i) are not owned by the Federal Government;

(ii) are capable of transmitting electric energy of not less than—

(I) 1,000 megawatts; or

(II) 500 megawatts, if the project consists of upgrading an existing transmission line or constructing a new transmission line in an existing transmission, transportation, or telecommunications infrastructure corridor;

(iii) are not subject to all costs to construct the project being recovered through a Transmission Organization (as defined in
section 3 of the Federal Power Act (16 U.S.C. 796)); and

(iv)(I) are new electric power transmission lines, including replacements of existing electric power transmission lines; or

(II) are significant upgrades that increase the transmission capacity of an existing electric power transmission line.

(B) INCLUSION.—The term “eligible project” includes the construction or upgrading of related facilities.

(4) ENVIRONMENTAL REVIEW PROCESS.—The term “environmental review process” means—

(A) the process of preparing an environmental impact statement, an environmental assessment, a categorical exclusion, or any other document prepared under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) for an eligible project; and

(B) any other process relating to the preparation or completion of an environmental permit, approval, review, or study required for an eligible project under any other Federal law.

(5) FEDERAL LAND.—The term “Federal land” means—
(A) public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)); and

(B) National Forest System land.

(6) **FUND.**—The term “Fund” means the Transmission Facilitation Fund established by subsection (e)(1).

(7) **PROGRAM.**—The term “program” means the Transmission Facilitation Program established by subsection (b).

(8) **RELATED FACILITY.**—

(A) **IN GENERAL.**—The term “related facility” means a facility related to an electric power transmission line described in paragraph (3)(A).

(B) **EXCLUSIONS.**—The term “related facility” does not include—

(i) facilities used primarily to generate electric energy; or

(ii) facilities used in the local distribution of electric energy.

(9) **SECRETARY.**—The term “Secretary” means the Secretary, acting through the Assistant Secretary for the Office of Electricity.
(b) Establishment.—There is established a program, to be known as the “Transmission Facilitation Program”, under which the Secretary shall facilitate the construction of non-Federal electric power transmission lines and related facilities in accordance with subsection (f).

(c) Administration.—The Secretary shall administer the program.

(d) Applications.—

(1) In general.—To be eligible for assistance under this section, an eligible entity shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(2) Procedures.—The Secretary shall establish procedures for the solicitation and review of applications from eligible entities.

(e) Funding.—

(1) Transmission facilitation fund.—

There is established in the Treasury a fund, to be known as the “Transmission Facilitation Fund”, consisting of—

(A) any amounts appropriated to the Fund; and

(B) any amounts deposited in the Fund under paragraph (2).
(2) DEPOSITS.—The Secretary shall deposit in the Fund—

(A) all amounts received by the Secretary, including receipts, collections, and recoveries, from any source relating to expenses incurred by the Secretary in carrying out the program, including—

(i) costs recovered for a capacity contract; and

(ii) amounts received as repayment of a loan issued to an eligible entity under subsection (f)(1)(B);

(B) all amounts borrowed from the Treasury by the Secretary for the program under paragraph (3); and

(C) any amounts appropriated to the Secretary for the program.

(3) BORROWING AUTHORITY.—The Secretary may borrow from the Treasury $2,500,000,000 to carry out the program.

(4) EXPENDITURES.—The amounts in the Fund shall be available to the Secretary, without further appropriation or fiscal year limitation, to carry out the program.

(5) COST RECOVERY.—
(A) IN GENERAL.—Except as provided in subparagraph (B), the cost of any facilitation activities carried out by the Secretary under subsection (f)(1) shall be collected, on a schedule to be determined by the Secretary—

(i) from eligible entities receiving the benefit of the applicable facilitation activity; or

(ii) with respect to a contracted transmission capacity under subsection (f)(1)(A)—

(I) through rates charged to third parties for the use of the contracted transmission capacity; and

(II) on termination of the applicable capacity contract under subsection (g)(6), from the applicable third party or eligible entity, in accordance with that subsection.

(B) EXCEPTION.—

(i) IN GENERAL.—The Secretary may terminate a capacity contract under subsection (g)(6) without recovering the outstanding costs of facilitating the applicable eligible project if the Secretary determines
that it is not feasible to recover those costs prior to terminating the capacity contract, as determined by the Secretary.

(ii) Forgiveness of Certain Amounts.—If the Secretary terminates a capacity contract under clause (i), any amounts borrowed by the Secretary from the Treasury for the purpose of facilitating the applicable eligible project—

(I) shall be forgiven; and

(II) shall not count toward the limitation described in paragraph (3).

(6) Refinancing.—The Secretary may refinance loans made to the Secretary under paragraph (3) within the Treasury.

(7) Authorization of Appropriations.—There is authorized to be appropriated to the Secretary to carry out the program, including for any administrative expenses of carrying out the program that are not recovered under paragraph (5), $10,000,000 for each of fiscal years 2022 through 2026.

(f) Facilitation of Eligible Projects.—

(1) In general.—To facilitate eligible projects, the Secretary may—
(A) subject to subsections (g) and (j), enter into a capacity contract with respect to an eligible project prior to the date on which the eligible project is completed;

(B) subject to subsections (h) and (j), issue a loan to an eligible entity for the costs of carrying out an eligible project;

(C) provide technical assistance to an eligible entity with respect to an eligible project; and

(D) notwithstanding any other provision of law and subject to subsection (i), to the extent that an eligible project is required to undergo an environmental review process, including with respect to any rights-of-way across Federal land, establish the Department as the Federal lead agency for that environmental review process.

(2) REQUIREMENT.—The provision and receipt of assistance for an eligible project under paragraph (1) shall be subject to such terms and conditions as the Secretary determines to be appropriate to ensure the success of the program.

(g) CAPACITY CONTRACTS.—
(1) PURPOSE.—In entering into capacity contracts under subsection (f)(1)(A), the Secretary shall seek to enter into capacity contracts that will encourage other entities to enter into contracts for the transmission capacity of the eligible projects.

(2) PAYMENT.—The amount paid by the Secretary to an eligible entity under a capacity contract for the right to the use of the transmission capacity of an eligible project shall be—

(A) the fair market value for the use of the transmission capacity, as determined by the Secretary, taking into account, as the Secretary determines to be necessary, the comparable value for the use of the transmission capacity of other electric power transmission lines; and

(B) on a schedule and in such divided amounts, including in a single amount, that the Secretary determines are likely to facilitate construction of the eligible project, taking into account standard industry practice and factors specific to each applicant, including, as applicable—

(i) potential review by a State regulatory entity of the revenue requirement of an electric utility; and
(ii) the financial model of an independent transmission developer.

(3) LIMITATIONS.—A capacity contract shall—

(A) be for a term of not more than 40 years; and

(B) be for not more than 50 percent of the total proposed transmission capacity of the applicable eligible project.

(4) TERMS AND CONDITIONS.—A capacity contract shall include such detailed terms and conditions as the Secretary determines to be appropriate to protect the interests of the United States.

(5) TRANSMISSION MARKETING.—

(A) IN GENERAL.—If the Secretary has not terminated a capacity contract under paragraph (6) before the applicable eligible project enters into service, the Secretary may enter into 1 or more contracts with a third party to market the transmission capacity of the eligible project to which the Secretary holds rights under the capacity contract.

(B) RETURN.—The Secretary shall seek to ensure that any contract entered into under subparagraph (A) maximizes the financial return to the Federal Government.
(C) **COMPETITIVE SOLICITATION.**—The Secretary shall only select third parties for contracts under this paragraph through a competitive solicitation.

(6) **TERMINATION.**—

(A) **IN GENERAL.**—The Secretary shall seek to terminate a capacity contract as soon as practicable after determining that sufficient transmission capacity of the eligible project has been secured by other entities to ensure the long-term financial viability of the eligible project, including through 1 or more transfers under subparagraph (B).

(B) **TRANSFER.**—On payment to the Secretary by a third party for transmission capacity to which the Secretary has rights under a capacity contract, the Secretary may transfer the rights to that transmission capacity to that third party.

(C) **RELINQUISHMENT.**—On payment to the Secretary by the applicable eligible entity for transmission capacity to which the Secretary has rights under a capacity contract, the Secretary may relinquish the rights to that transmission capacity to the eligible entity.
(D) **REQUIREMENT.**—A payment under subparagraph (B) or (C) shall be in an amount sufficient for the Secretary to recover any remaining costs incurred by the Secretary with respect to the quantity of transmission capacity affected by the transfer under subparagraph (B) or the relinquishment under subparagraph (C), as applicable.

(7) **OTHER FEDERAL CAPACITY POSITIONS.**—The existence of a capacity contract does not preclude a Federal entity, including a Federal power marketing administration, from otherwise securing transmission capacity at any time from an eligible project, to the extent that the Federal entity is authorized to secure that transmission capacity.

(8) **FORM OF FINANCIAL ASSISTANCE.**—Entering into a capacity contract under subsection (f)(1)(A) shall be considered a form of financial assistance covered by section 1508.1(q)(1)(vii) of title 40, Code of Federal Regulations [(or successor regulations/as in effect on the date of enactment of this Act)].

(h) **INTEREST RATE ON LOANS.**—The rate of interest to be charged in connection with any loan made by the Secretary to an eligible entity under subsection (f)(1)(B)
shall be fixed by the Secretary, taking into consideration market yields on outstanding marketable obligations of the United States of comparable maturities as of the date of the loan.

(i) **Environmental Review Process.**—

(1) **Joint Lead Agencies.**—Nothing in this section precludes another Federal agency from being a joint lead agency with the Department in accordance with regulations promulgated under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(2) **Effect of Authority.**—Except as provided in subsection (g)(8), nothing in this section affects or limits the application of, or any obligation to comply with, any requirement of an environmental law of the United States, including the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(3) **Cost Recovery.**—The head of any Federal agency may accept funds from an eligible entity to cover the costs of completing an environmental review process relating to the facilitation of an eligible project under this section.
(j) Certification.—Prior to taking action to facilitate an eligible project under subparagraph (A) or (B) of subsection (f)(1), the Secretary shall certify that—

(1) the eligible project is in the public interest;

(2) the eligible project is unlikely to be constructed in as timely a manner or with as much transmission capacity in the absence of facilitation under this section, including with respect to an eligible project for which a Federal investment tax credit may be allowed; and

(3) it is reasonable to expect that the proceeds from the eligible project will be adequate, as applicable—

(A) to recover the cost of a capacity contract entered into under subsection (f)(1)(A); or

(B) to repay a loan provided under subsection (f)(1)(B).

(k) Other Authorities, Limitations, and Effects.—

(1) Participation.—The Secretary may permit other entities to participate in the financing, construction, and ownership of eligible projects facilitated under this section.

(2) Operations and Maintenance.—Facilitation by the Secretary of an eligible project under
this section does not create any obligation on the part of the Secretary to operate or maintain the eligible project.

(3) FEDERAL FACILITIES.—For purposes of cost recovery under subsection (e)(5) and repayment of a loan issued under subsection (f)(1)(B), each eligible project facilitated by the Secretary through the use of a capacity contract or the issuance of a loan under this section shall be treated as separate and distinct from—

(A) each other eligible project; and

(B) all other Federal power and transmission facilities.

(4) EFFECT ON ANCILLARY SERVICES AUTHORITY AND OBLIGATIONS.—Nothing in this section confers on the Secretary or any Federal power marketing administration any additional authority or obligation to provide ancillary services to users of transmission facilities constructed or upgraded under this section.

(5) EFFECT ON WESTERN AREA POWER ADMINISTRATION PROJECTS.—Nothing in this section affects—

(A) any pending project application before the Western Area Power Administration under
section 301 of the Hoover Power Plant Act of 1984 (42 U.S.C. 16421a); or
(B) any agreement entered into by the Western Power Administration under that section.

(6) THIRD-PARTY FINANCE.—Nothing in this section precludes an eligible project facilitated under this section from being eligible as a project under section 1222 of the Energy Policy Act of 2005 (42 U.S.C. 16421).

(7) LIMITATION ON LOANS.—An eligible project may not be the subject of both—
(A) a loan under subsection (f)(1)(B); and
(B) a Federal loan under section 301 of the Hoover Power Plant Act of 1984 (42 U.S.C. 16421a).

(8) CONSIDERATIONS.—In evaluating eligible projects for possible facilitation under this section, the Secretary shall prioritize projects that, to the maximum extent practicable—
(A) use technology that enhances the capacity, efficiency, or reliability of an electric power transmission system, including hardware or software that enables dynamic line ratings,
advanced power flow control, or grid topology optimization;

(B) will improve the resiliency and reliability of an electric power transmission system;

(C) facilitate interregional transmission projects that support strong and equitable economic growth; and

(D) contribute to national or subnational goals to lower electricity sector greenhouse gas emissions.

SEC. 1008. DEPLOYMENT OF TECHNOLOGIES TO ENHANCE GRID FLEXIBILITY.

(a) In General.—Section 1306 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17386) is amended—

(1) in subsection (b)—

(A) in the matter preceding paragraph (1), by striking “the date of enactment of this Act” and inserting “the date of enactment of the Energy Infrastructure Act”;

(B) by redesignating paragraph (9) as paragraph (13); and

(C) by inserting after paragraph (8) the following:
“(9) In the case of data analytics that enable software to engage in Smart Grid functions, the documented purchase costs of the data analytics.

“(10) In the case of buildings, the documented expenses for devices and software that allow buildings to engage in Smart Grid functions.

“(11) In the case of utility communications, operational fiber and wireless broadband communications networks to enable data flow between distribution system components.

“(12) In the case of extreme weather or natural disasters, such as wildfires, the ability to redirect or shut off power to minimize blackouts and avoid further damage.”; and

(2) in subsection (d)—

(A) by redesignating paragraph (9) as paragraph (13); and

(B) by inserting after paragraph (8) the following:

“(9) The ability to use data analytics and software-as-service to provide flexibility by improving the visibility of the electrical system to grid operators that can help quickly rebalance the electrical system with autonomous controls.
“(10) The ability to facilitate the aggregation or integration of distributed energy resources to serve as assets for the grid.

“(11) The ability to provide energy storage to meet fluctuating electricity demand, provide voltage support, and integrate intermittent generation sources.

“(12) The ability to anticipate and mitigate impacts of extreme weather events or natural disasters on grid resiliency.”

(b) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out the Smart Grid Investment Matching Grant Program established under section 1306(a) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17386(a)), out of any amounts in the Treasury not otherwise appropriated, $3,000,000,000 for fiscal year 2022, to remain available through September 30, 2026.

SEC. 1009. STATE ENERGY SECURITY PLANS.

(a) IN GENERAL.—Part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.) is amended—

(1) in section 361—
(A) by striking the section designation and heading and all that follows through “The Con-
gress” and inserting the following:

“SEC. 361. FINDINGS; PURPOSE; DEFINITIONS.

“(a) FINDINGS.—Congress”;

(B) in subsection (b), by striking “(b) It
is” and inserting the following:

“(b) PURPOSE.—It is”; and

(C) by adding at the end the following:

“(c) DEFINITIONS.—In this part.”;

(2) in section 366—

(A) in paragraph (3)(B)(i), by striking
“approved under section 367, and” ; and insert-
ing “; and”;

(B) in each of paragraphs (1) through (8),
by inserting a paragraph heading, the text of
which is comprised of the term defined in the
paragraph; and

(C) by redesignating paragraphs (6) and
(7) as paragraphs (7) and (6), respectively, and
moving the paragraphs so as to appear in nu-
merical order;

(3) by moving paragraphs (1) through (8) of
section 366 (as so redesignated) so as to appear
after subsection (c) of section 361 (as designated by paragraph (1)(C)); and

(4) by amending section 366 to read as follows:

“SEC. 366. STATE ENERGY SECURITY PLANS.

“(a) DEFINITIONS.—In this section:

“(1) BULK-POWER SYSTEM.—The term ‘bulk-power system’ has the meaning given the term in section 215(a) of the Federal Power Act (16 U.S.C. 824o(a)).

“(2) STATE ENERGY SECURITY PLAN.—The term ‘State energy security plan’ means a State energy security plan described in subsection (b).

“(b) FINANCIAL ASSISTANCE FOR STATE ENERGY SECURITY PLANS.—Federal financial assistance made available to a State under this part may be used for the development, implementation, review, and revision of a State energy security plan that—

“(1) assesses the existing circumstances in the State; and

“(2) proposes methods to strengthen the ability of the State, in consultation with owners and operators of energy infrastructure in the State—

“(A) to secure the energy infrastructure of the State against all physical and cybersecurity threats;
“(B)(i) to mitigate the risk of energy supply disruptions to the State; and

“(ii) to enhance the response to, and recovery from, energy disruptions; and

“(C) to ensure that the State has reliable, secure, and resilient energy infrastructure.

“(c) CONTENTS OF PLAN.—A State energy security plan shall—

“(1) address all energy sources and regulated and unregulated energy providers;

“(2) provide a State energy profile, including an assessment of energy production, transmission, distribution, and end-use;

“(3) address potential hazards to each energy sector or system, including—

“(A) physical threats and vulnerabilities; and

“(B) cybersecurity threats and vulnerabilities;

“(4) provide a risk assessment of energy infrastructure and cross-sector interdependencies;

“(5) provide a risk mitigation approach to enhance reliability and end-use resilience; and

“(6)(A) address—
“(i) multi-State and regional coordination, planning, and response; and

“(ii) coordination with Indian Tribes with respect to planning and response; and

“(B) to the extent practicable, encourage mutual assistance in cyber and physical response plans.

“(d) COORDINATION.—In developing or revising a State energy security plan, the State energy office of the State shall coordinate, to the extent practicable, with—

“(1) the public utility or service commission of the State;

“(2) energy providers from the private and public sectors; and

“(3) other entities responsible for—

“(A) maintaining fuel or electric reliability; and

“(B) securing energy infrastructure.

“(e) FINANCIAL ASSISTANCE.—A State is not eligible to receive Federal financial assistance under this part for any purpose for a fiscal year unless the Governor of the State submits to the Secretary, with respect to that fiscal year—

“(1) a State energy security plan that meets the requirements of subsection (c); or
“(2) after an annual review, carried out by the Governor, of a State energy security plan—

“(A) any necessary revisions to the State energy security plan; or

“(B) a certification that no revisions to the State energy security plan are necessary.

“(f) TECHNICAL ASSISTANCE.—On request of the Governor of a State, the Secretary, in consultation with the Secretary of Homeland Security, may provide information, technical assistance, and other assistance in the development, implementation, or revision of a State energy security plan.

“(g) REQUIREMENT.—Each State receiving Federal financial assistance under this part shall provide reasonable assurance to the Secretary that the State has established policies and procedures designed to assure that the financial assistance will be used—

“(1) to supplement, and not to supplant, State and local funds; and

“(2) to the maximum extent practicable, to increase the amount of State and local funds that otherwise would be available, in the absence of the Federal financial assistance, for the implementation of a State energy security plan.
“(h) PROTECTION OF INFORMATION.—Information provided to, or collected by, the Federal Government pursuant to this section the disclosure of which the Secretary reasonably foresees could be detrimental to the physical security or cybersecurity of any electric utility or the bulk-power system—

“(1) shall be exempt from disclosure under section 552(b)(3) of title 5, United States Code; and

“(2) shall not be made available by any Federal agency, State, political subdivision of a State, or Tribal authority pursuant to any Federal, State, political subdivision of a State, or Tribal law, respectively, requiring public disclosure of information or records.

“(i) SUNSET.—The requirements of this section shall expire on October 31, 2025.”.

(b) CLERICAL AMENDMENTS.—The table of contents of the Energy Policy and Conservation Act (Public Law 94–163; 89 Stat. 872) is amended—

(1) by striking the item relating to section 361 and inserting the following:

“Sec. 361. Findings; purpose; definitions.”; and

(2) by striking the item relating to section 366 and inserting the following:

“Sec. 366. State energy security plans.”.

(c) CONFORMING AMENDMENTS.—
(1) Section 509(i)(3) of the Housing and Urban Development Act of 1970 (12 U.S.C. 1701z–8(i)(3)) is amended by striking “prescribed for such terms in section 366 of the Energy Policy and Conservation Act” and inserting “given the terms in section 361(c) of the Energy Policy and Conservation Act”.

(2) Section 363 of the Energy Policy and Conservation Act (42 U.S.C. 6323) is amended—

(A) by striking subsection (e); and

(B) by redesignating subsection (f) as subsection (e).

(3) Section 451(i)(3) of the Energy Conservation and Production Act (42 U.S.C. 6881(i)(3)) is amended by striking “prescribed for such terms in section 366 of the Federal Energy Policy and Conservation Act” and inserting “given the terms in section 361(c) of the Energy Policy and Conservation Act”.

SEC. 1010. STATE ENERGY PROGRAM.

(a) AUTHORIZATION OF APPROPRIATIONS.—Section 365 of the Energy Policy and Conservation Act (42 U.S.C. 6325) is amended by striking subsection (f) and inserting the following:
“(f) Authorization of Appropriations.—There is authorized to be appropriated to carry out this part $90,000,000 for each of fiscal years 2022 through 2026.”.

(b) Collaborative Transmission Siting.—

(1) In general.—Part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.) is amended by adding at the end the following:

“Sec. 367. Direct Appropriations.

“In addition to amounts otherwise made available, there is appropriated to the Secretary, out of any amounts in the Treasury not otherwise appropriated, $500,000,000 for fiscal year 2022, to remain available through September 30, 2029, for the State Energy Program under this part for State, local, and Tribal governments to support transmission and distribution planning, including—

“(1) feasibility studies for transmission line routes and alternatives;

“(2) preparation of necessary project design and permits; and

“(3) outreach to affected stakeholders.”.

(2) Clerical Amendment.—The table of contents of the Energy Policy and Conservation Act (Public Law 94–163; 89 Stat. 872) is amended by
adding at the end of the items relating to part D of title III the following:

“Sec. 367. Direct appropriations.”

(c) STATE ENERGY CONSERVATION PLANS.—Section 362(d) of the Energy Policy and Conservation Act (42 U.S.C. 6322(d)) is amended by striking paragraph (3) and inserting the following:

“(3) programs to increase transportation energy efficiency, including programs to help reduce carbon emissions in the transportation sector by 2050 and accelerate the use of alternative transportation fuels for, and the electrification of, State government vehicles, fleet vehicles, taxis and ridesharing services, mass transit, school buses, and privately owned passenger and medium- and heavy-duty vehicles;”.

SEC. 1011. POWER MARKETING ADMINISTRATION TRANS-
MISSION BORROWING AUTHORITY.

For the purposes of providing funds to assist in the financing of the construction, acquisition, and replacement of the transmission system of the Bonneville Power Administration under the Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. 839 et seq.), an additional $2,000,000,000 in borrowing authority is made available under the Federal Columbia River Transmission System Act (16 U.S.C. 838 et seq.), to remain outstanding at any 1 time.
Subtitle B—Cybersecurity

SEC. 1101. ENHANCING GRID SECURITY THROUGH PUBLIC-PRI

PRIVATE PARTNERSHIPS.

(a) DEFINITIONS.—In this section:

(1) BULK-POWER SYSTEM; ELECTRIC RELIABILITY ORGANIZATION.—The terms “bulk-power system” and “Electric Reliability Organization” have the meaning given the terms in section 215(a) of the Federal Power Act (16 U.S.C. 824o(a)).

(2) ELECTRIC UTILITY; STATE REGULATORY AUTHORITY.—The terms “electric utility” and “State regulatory authority” have the meanings given the terms in section 3 of the Federal Power Act (16 U.S.C. 796).

(b) PROGRAM TO PROMOTE AND ADVANCE PHYSICAL SECURITY AND CYBERSECURITY OF ELECTRIC UTILITIES.—

(1) ESTABLISHMENT.—The Secretary, in consultation with the Secretary of Homeland Security and, as the Secretary determines to be appropriate, the heads of other relevant Federal agencies, State regulatory authorities, industry stakeholders, and the Electric Reliability Organization, shall carry out a program—
(A) to develop, and provide for voluntary implementation of, maturity models, self-assessments, and auditing methods for assessing the physical security and cybersecurity of electric utilities;

(B) to assist with threat assessment and cybersecurity training for electric utilities;

(C) to provide technical assistance for electric utilities subject to the program;

(D) to provide training to electric utilities to address and mitigate cybersecurity supply chain management risks;

(E) to advance, in partnership with electric utilities, the cybersecurity of third-party vendors that manufacture components of the electric grid; and

(F) to increase opportunities for sharing best practices and data collection within the electric sector.

(2) \textbf{SCOPE.}—In carrying out the program under paragraph (1), the Secretary shall—

(A) take into consideration—

(i) the different sizes of electric utilities; and
(ii) the regions that electric utilities serve;

(B) prioritize electric utilities with fewer available resources due to size or region; and

(C) to the maximum extent practicable, use and leverage—

(i) existing Department and Department of Homeland Security programs; and

(ii) existing programs of the Federal agencies determined to be appropriate under paragraph (1).

(c) Report on Cybersecurity of Distribution Systems.—Not later than 1 year after the date of enactment of this Act, the Secretary, in consultation with the Secretary of Homeland Security and, as the Secretary determines to be appropriate, the heads of other Federal agencies, State regulatory authorities, and industry stakeholders, shall submit to Congress a report that assesses—

(1) priorities, policies, procedures, and actions for enhancing the physical security and cybersecurity of electricity distribution systems, including behind-the-meter generation, storage, and load management devices, to address threats to, and vulnerabilities of, electricity distribution systems; and
(2) the implementation of the priorities, policies, procedures, and actions assessed under paragraph (1), including—

(A) an estimate of potential costs and benefits of the implementation; and

(B) an assessment of any public-private cost-sharing opportunities.

(d) PROTECTION OF INFORMATION.—Information provided to, or collected by, the Federal Government pursuant to this section the disclosure of which the Secretary reasonably foresees could be detrimental to the physical security or cybersecurity of any electric utility or the bulk-power system—

(1) shall be exempt from disclosure under section 552(b)(3) of title 5, United States Code; and

(2) shall not be made available by any Federal agency, State, political subdivision of a State, or Tribal authority pursuant to any Federal, State, political subdivision of a State, or Tribal law, respectively, requiring public disclosure of information or records.

(e) SAVINGS PROVISION.—Nothing in this section affects the authority, existing on the day before the date of enactment of this Act, of any other Federal department or agency, including the authority provided to the Sec-
retary of Homeland Security and the Director of the Cy-
bersecurity and Infrastructure Security Agency in title
651 et seq.).

SEC. 1102. ENERGY CYBER SENSE PROGRAM.

(a) DEFINITIONS.—In this section:

(1) BULK-POWER SYSTEM.—The term “bulk-
power system” has the meaning given the term in
section 215(a) of the Federal Power Act (16 U.S.C.
824o(a)).

(2) PROGRAM.—The term “program” means
the voluntary Energy Cyber Sense program estab-
lished under subsection (b).

(b) ESTABLISHMENT.—The Secretary, in consulta-
tion with the Secretary of Homeland Security and the
heads of other relevant Federal agencies, shall establish
a voluntary Energy Cyber Sense program to test the cy-
bersecurity of products and technologies intended for use
in the bulk-power system.

(c) PROGRAM REQUIREMENTS.—In carrying out sub-
section (b), the Secretary, in consultation with the Sec-
retary of Homeland Security and the heads of other rel-
evant Federal agencies, shall—

(1) establish a testing process under the pro-
gram to test the cybersecurity of products and tech-
nologies intended for use in the bulk-power system, including products relating to industrial control systems and operational technologies, such as supervisory control and data acquisition systems;

(2) for products and technologies tested under the program, establish and maintain cybersecurity vulnerability reporting processes and a related database that are integrated with Federal vulnerability coordination processes;

(3) provide technical assistance to electric utilities, product manufacturers, and other electricity sector stakeholders to develop solutions to mitigate identified cybersecurity vulnerabilities in products and technologies tested under the program;

(4) biennially review products and technologies tested under the program for cybersecurity vulnerabilities and provide analysis with respect to how those products and technologies respond to and mitigate cyber threats;

(5) develop guidance that is informed by analysis and testing results under the program for electric utilities for the procurement of products and technologies;
(6) provide reasonable notice to, and solicit comments from, the public prior to establishing or revising the testing process under the program;

(7) oversee the testing of products and technologies under the program; and

(8) consider incentives to encourage the use of analysis and results of testing under the program in the design of products and technologies for use in the bulk-power system.

(d) Protection of Information.—Information provided to, or collected by, the Federal Government pursuant to this section the disclosure of which the Secretary reasonably foresees could be detrimental to the physical security or cybersecurity of any electric utility or the bulk-power system—

(1) shall be exempt from disclosure under section 552(b)(3) of title 5, United States Code; and

(2) shall not be made available by any Federal agency, State, political subdivision of a State, or Tribal authority pursuant to any Federal, State, political subdivision of a State, or Tribal law, respectively, requiring public disclosure of information or records.

(e) Federal Government Liability.—Nothing in this section authorizes the commencement of an action
against the United States with respect to the testing of a product or technology under the program.

(f) Savings Provision.—Nothing in this section affects the authority, existing on the day before the date of enactment of this Act, of any other Federal department or agency, including the authority provided to the Secretary of Homeland Security and the Director of the Cybersecurity and Infrastructure Security Agency in title XXII of the Homeland Security Act of 2002 (6 U.S.C. 651 et seq.).

SEC. 1103. INCENTIVES FOR ADVANCED CYBERSECURITY TECHNOLOGY INVESTMENT.

Part II of the Federal Power Act is amended by inserting after section 219 (16 U.S.C. 824s) the following:

“SEC. 219A. INCENTIVES FOR CYBERSECURITY INVESTMENTS.

“(a) Definitions.—In this section:

“(1) Advanced Cybersecurity Technology.—The term ‘advanced cybersecurity technology’ means any technology, operational capability, or service, including computer hardware, software, or a related asset, that enhances the security posture of public utilities through improvements in the ability to protect against, detect, respond to, or recover from a cybersecurity threat (as defined in section
102 of the Cybersecurity Act of 2015 (6 U.S.C. 1501)).

“(2) ADVANCED CYBERSECURITY TECHNOLOGY INFORMATION.—The term ‘advanced cybersecurity technology information’ means information relating to advanced cybersecurity technology or proposed advanced cybersecurity technology that is generated by or provided to the Commission or another Federal agency.

“(b) STUDY.—Not later than 180 days after the date of enactment of this section, the Commission, in consultation with the Secretary of Energy, the North American Electric Reliability Corporation, the Electricity Subsector Coordinating Council, and the National Association of Regulatory Utility Commissioners, shall conduct a study to identify incentive-based, including performance-based, rate treatments for the transmission and sale of electric energy subject to the jurisdiction of the Commission that could be used to encourage—

“(1) investment by public utilities in advanced cybersecurity technology; and

“(2) participation by public utilities in cybersecurity threat information sharing programs.

“(c) INCENTIVE-BASED RATE TREATMENT.—Not later than 1 year after the completion of the study under
subsection (b), the Commission shall establish, by rule, incentive-based, including performance-based, rate treatments for the transmission of electric energy in interstate commerce and the sale of electric energy at wholesale in interstate commerce by public utilities for the purpose of benefitting consumers by encouraging—

“(1) investments by public utilities in advanced cybersecurity technology; and

“(2) participation by public utilities in cybersecurity threat information sharing programs.

“(d) FACTORS FOR CONSIDERATION.—In issuing a rule pursuant to this section, the Commission may provide additional incentives beyond those identified in subsection (c) in any case in which the Commission determines that an investment in advanced cybersecurity technology or information sharing program costs will reduce cybersecurity risks to—

“(1) defense critical electric infrastructure (as defined in section 215A(a)) and other facilities subject to the jurisdiction of the Commission that are critical to public safety, national defense, or homeland security, as determined by the Commission in consultation with—

“(A) the Secretary of Energy;
“(B) the Secretary of Homeland Security;

and

“(C) other appropriate Federal agencies;

and

“(2) facilities of small or medium-sized public utilities with limited cybersecurity resources, as determined by the Commission.

“(e) RATEPAYER PROTECTION.—

“(1) IN GENERAL.—Any rate approved under a rule issued pursuant to this section, including any revisions to that rule, shall be subject to the requirements of sections 205 and 206 that all rates, charges, terms, and conditions—

“(A) shall be just and reasonable; and

“(B) shall not be unduly discriminatory or preferential.

“(2) PROHIBITION OF DUPLICATE RECOVERY.—Any rule issued pursuant to this section shall preclude rate treatments that allow unjust and unreasonable double recovery for advanced cybersecurity technology.

“(f) SINGLE-ISSUE RATE FILINGS.—The Commission shall permit public utilities to apply for incentive-based rate treatment under a rule issued under this section on a single-issue basis by submitting to the Commis-
sion a tariff schedule under section 205 that permits re-
covery of costs and incentives over the depreciable life of 
the applicable assets, without regard to changes in receipts 
or other costs of the public utility.

“(g) PROTECTION OF INFORMATION.—Advanced cy-
bersecurity technology information that is provided to, 
generated by, or collected by the Federal Government 
under subsection (b), (c), or (f) shall be considered to be 
critical electric infrastructure information under section 
215A.”.

SEC. 1104. RURAL AND MUNICIPAL UTILITY ADVANCED CY-
BERSECURITY GRANT AND TECHNICAL AS-
SISTANCE PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ADVANCED CYBERSECURITY TECH-
NOLOGY.—The term “advanced cybersecurity tech-
ology” means any technology, operational capa-
bility, or service, including computer hardware, soft-
ware, or a related asset, that enhances the security 
posture of electric utilities through improvements in 
the ability to protect against, detect, respond to, or 
recover from a cybersecurity threat (as defined in 
section 102 of the Cybersecurity Act of 2015 (6 
U.S.C. 1501)).
(2) **Bulk-power system.**—The term “bulk-power system” has the meaning given the term in section 215(a) of the Federal Power Act (16 U.S.C. 824o(a)).

(3) **Eligible entity.**—The term “eligible entity” means—

(A) a rural electric cooperative;

(B) a utility owned by a political subdivision of a State, such as a municipally owned electric utility;

(C) a utility owned by any agency, authority, corporation, or instrumentality of 1 or more political subdivisions of a State;

(D) a not-for-profit entity that is in a partnership with not fewer than 6 entities described in subparagraph (A), (B), or (C); and

(E) an investor-owned electric utility that sells less than 4,000,000 megawatt hours of electricity per year.

(4) **Program.**—The term “Program” means the Rural and Municipal Utility Advanced Cybersecurity Grant and Technical Assistance Program established under subsection (b).

(b) **Establishment.**—Not later than 180 days after the date of enactment of this Act, the Secretary, in con-
sultation with the Secretary of Homeland Security, the Federal Energy Regulatory Commission, the North American Electric Reliability Corporation, and the Electricity Subsector Coordinating Council, shall establish a program, to be known as the “Rural and Municipal Utility Advanced Cybersecurity Grant and Technical Assistance Program”, to provide grants and technical assistance to, and enter into cooperative agreements with, eligible entities to protect against, detect, respond to, and recover from cybersecurity threats.

(c) Objectives.—The objectives of the Program shall be—

(1) to deploy advanced cybersecurity technologies for electric utility systems; and

(2) to increase the participation of eligible entities in cybersecurity threat information sharing programs.

(d) Awards.—

(1) In general.—The Secretary—

(A) shall award grants and provide technical assistance under the Program to eligible entities on a competitive basis;

(B) shall develop criteria and a formula for awarding grants and providing technical assistance under the Program;
(C) may enter into cooperative agreements with eligible entities that can facilitate the objectives described in subsection (c); and

(D) shall establish a process to ensure that all eligible entities are informed about and can become aware of opportunities to receive grants or technical assistance under the Program.

(2) Priority for Grants and Technical Assistance.—In awarding grants and providing technical assistance under the Program, the Secretary shall give priority to an eligible entity that, as determined by the Secretary—

(A) has limited cybersecurity resources;

(B) owns assets critical to the reliability of the bulk-power system; or

(C) owns defense critical electric infrastructure (as defined in section 215A(a) of the Federal Power Act (16 U.S.C. 824o–1(a))).

(e) Protection of Information.—Information provided to, or collected by, the Federal Government pursuant to this section the disclosure of which the Secretary reasonably foresees could be detrimental to the physical security or cybersecurity of any electric utility or the bulk-power system—
(1) shall be exempt from disclosure under section 552(b)(3) of title 5, United States Code; and
(2) shall not be made available by any Federal agency, State, political subdivision of a State, or Tribal authority pursuant to any Federal, State, political subdivision of a State, or Tribal law, respectively, requiring public disclosure of information or records.

(f) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $50,000,000 for each of fiscal years 2022 through 2026.

SEC. 1105. ENHANCED GRID SECURITY.

(a) Definitions.—In this section:

(1) Electric utility.—The term “electric utility” has the meaning given the term in section 3 of the Federal Power Act (16 U.S.C. 796).

(2) E-ISAC.—The term “E-ISAC” means the Electricity Information Sharing and Analysis Center.

(b) Cybersecurity for the Energy Sector Research, Development, and Demonstration Program.—

(1) In general.—The Secretary, in consultation with the Secretary of Homeland Security and,
as determined appropriate, other Federal agencies, the energy sector, the States, and other stakeholders, shall develop and carry out a program—

(A) to develop advanced cybersecurity applications and technologies for the energy sector—

(i) to identify and mitigate vulnerabilities, including—

(I) dependencies on other critical infrastructure; and

(II) impacts from weather and fuel supply; and

(ii) to advance the security of field devices and third-party control systems, including—

(I) systems for generation, transmission, distribution, end use, and market functions;

(II) specific electric grid elements including advanced metering, demand response, distribution, generation, and electricity storage;

(III) forensic analysis of infected systems; and

(IV) secure communications;
(B) to leverage electric grid architecture as a means to assess risks to the energy sector, including by implementing an all-hazards approach to communications infrastructure, control systems architecture, and power systems architecture;

(C) to perform pilot demonstration projects with the energy sector to gain experience with new technologies; and

(D) to develop workforce development curricula for energy sector-related cybersecurity.

(2) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this subsection, out of any amounts in the Treasury not otherwise appropriated, $50,000,000 for each of fiscal years 2022 through 2026.

(c) Energy Sector Operational Support for Cyberresilience Program.—

(1) In general.—The Secretary may develop and carry out a program—

(A) to enhance and periodically test—

(i) the emergency response capabilities of the Department; and
(ii) the coordination of the Department with other agencies, the National
Laboratories, and private industry;

(B) to expand cooperation of the Department with the intelligence community for energy sector-related threat collection and analysis;

(C) to enhance the tools of the Department and E-ISAC for monitoring the status of the energy sector;

(D) to expand industry participation in E-ISAC; and

(E) to provide technical assistance to small electric utilities for purposes of assessing cybermaturity levels.

(2) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this subsection, out of any amounts in the Treasury not otherwise appropriated, $10,000,000 for each of fiscal years 2022 through 2026.

(d) Modeling and Assessing Energy Infrastructure Risk.—
(1) **In General.**—The Secretary shall develop and carry out an advanced energy security program to secure energy networks, including—

(A) electric networks;

(B) natural gas networks; and

(C) oil exploration, transmission, and delivery networks.

(2) **Security and Resiliency Objective.**—

The objective of the program developed under paragraph (1) is to increase the functional preservation of electric grid operations or natural gas and oil operations in the face of natural and human-made threats and hazards, including electric magnetic pulse and geomagnetic disturbances.

(3) **Eligible Activities.**—In carrying out the program developed under paragraph (1), the Secretary may—

(A) develop capabilities to identify vulnerabilities and critical components that pose major risks to grid security if destroyed or impaired;

(B) develop a maturity model for physical security and cybersecurity;

(C) conduct exercises and assessments to identify and mitigate vulnerabilities to the elec-
tric grid, including providing mitigation recom-
mendations; and

(D) provide technical assistance to States and other entities for standards and risk analysis.

(4) Authorization of Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this subsection, out of any amounts in the Treasury not otherwise appropriated, $10,000,000 for each of fiscal years 2022 through 2026.

Subtitle C—Broadband

SEC. 1201. ENABLING MIDDLE MILE BROADBAND INFRA-
STRUCTURE.

(a) Definitions.—In this section:

(1) Anchor institution.—The term “anchor institution” means any of the following:

(A) A school.

(B) A library.

(C) A healthcare provider.

(D) A community college.

(E) Any other community organization that makes essential broadband service available to the community.
(2) Eligible Entity.—The term “eligible entity” means an electric utility (as defined in section 3 of the Federal Power Act (16 U.S.C. 796)).

(3) Last Mile Broadband Infrastructure.—The term “last mile broadband infrastructure” means broadband infrastructure that connects directly to an end-user location.

(4) Middle Mile Broadband Infrastructure.—

(A) In General.—The term “middle mile broadband infrastructure” means any broadband infrastructure that does not connect directly to an end-user location (other than an anchor institution).

(B) Inclusions.—The term “middle mile broadband infrastructure” includes leased dark fiber, interoffice lit transport, lit backhaul, lit transport connectivity to data centers or internet exchange points, special access transport, and other similar services.

(5) Program.—The term “program” means the program established under subsection (b)(1).

(6) Unserved Area.—The term “unserved area” means an area that, as determined in accordance with the maps created under section 802(c)(1)
of the Communications Act of 1934 (47 U.S.C. 642(e)(1)), does not have access to broadband serv-

ice with—

(A) a download speed of at least 25 mega-

bits per second; and

(B) an upload speed of at least 3 megabits

per second.

(b) Establishment of Program.—

(1) In general.—Not later than 180 days
after the date of enactment of this Act, the Sec-
retary shall establish a program under which the
Secretary shall provide grants, loans, and loan guar-
antees to eligible entities for the construction, im-
provement, or acquisition of middle mile broadband
infrastructure.

(2) Purpose.—The purpose of the program
shall be to encourage the expansion and extension of
middle mile broadband infrastructure to reduce the
cost to connect unserved areas to the backbone of
the internet and thereby reduce the cost of deploying
last mile broadband infrastructure.

(c) Eligible Projects.—The Secretary may pro-
vide a grant, loan, or loan guarantee under the program
for a middle mile broadband infrastructure project de-
scribed in an application submitted under subsection (d)
only if the Secretary determines that, as of the date on which the application is submitted, the proposed middle mile broadband network associated with the middle mile broadband infrastructure project will be capable of supporting retail broadband service for the residents and businesses within the proposed service territory.

(d) APPLICATIONS.—An eligible entity desiring a grant, loan, or loan guarantee under the program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including—

(1) a plan to ensure the viability of the middle mile broadband infrastructure project proposed in the application by—

(A) connecting, assisting with connecting, or enabling the connection of retail broadband systems within the proposed service territory to the middle mile broadband infrastructure project in an affordable and economically competitive manner;

(B) obtaining contingent agreements from not fewer than 1 provider of last mile broadband infrastructure to lease or buy capacity prior to the date on which the grant, loan, or loan guarantee is provided; and
(C) leasing dark fiber capacity or selling services on a non-discriminatory basis; and

(2) a demonstration that the middle mile broadband infrastructure to be constructed, improved, or acquired pursuant to the project will, in coordination with other projects that serve unserved areas, reduce the cost to connect unserved areas to broadband service.

(e) SELECTION PRIORITY.—In selecting projects for which to provide grants, loans, or loan guarantees under the program, the Secretary shall give priority to projects that leverage existing rights-of-way, assets, and infrastructure to minimize financial, regulatory, and permitting challenges.

(f) REQUIREMENT.—An eligible entity selected to receive a grant, loan, or loan guarantee under the program shall agree—

(1) to complete build-out of the middle mile broadband infrastructure project described in the application by the date that is 5 years after the date on which proceeds from the applicable grant or loan are first made available to the eligible entity; and

(2) to comply with all requirements imposed by the Secretary.

(g) GRANTS.—
(1) LIMITATION.—A grant provided under the program may not exceed 50 percent of the total cost of the project for which the grant is awarded.

(2) PROHIBITION.—The Secretary may not require the recipient of a grant under the program, or any sublessee of the middle mile broadband infrastructure constructed, improved, or acquired pursuant to the grant, to provide to the Federal Government a security interest in the applicable middle mile broadband infrastructure.

(h) TERMS, CONDITIONS, AND ADEQUACY OF SECURITY FOR LOANS AND LOAN GUARANTEES.—

(1) IN GENERAL.—All loans and loan guarantees provided under the program shall be made subject to such terms, conditions, and adequacy of security requirements as may be required by the Secretary.

(2) SUBSTITUTE SECURITY.—If the middle mile broadband infrastructure constructed, improved, or acquired pursuant to a loan or loan guarantee provided under the program would not provide adequate security due to long-term leasing arrangements, the Secretary shall require substitute security in such form and substance as are acceptable to the Secretary.
(i) USE OF FUNDS BY REGULATED UTILITIES.—The Secretary shall encourage regulated utilities to use funds provided pursuant to a grant, loan, or loan guarantee under the program as a supplement to the core utility capital investment plans of the regulated utility to facilitate increased broadband connectivity to unserved areas in—

(1) the service territories of the regulated utility; and

(2) nearby communities.

(j) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $100,000,000 for each of fiscal years 2022 through 2026.

TITLE II—SUPPLY CHAINS FOR CLEAN ENERGY TECHNOLOGIES

SEC. 2001. EARTH MAPPING RESOURCES INITIATIVE.

(a) DEFINITION OF CRITICAL MINERAL.—In this section, the term “critical mineral” has the meaning given the term in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a)).

(b) ESTABLISHMENT.—There is established within the United States Geological Survey an initiative, to be known as the “Earth Mapping Resources Initiative” (referred to in this section as the “Initiative”).
(c) PURPOSE.—The purpose of the Initiative shall be to accelerate efforts to carry out the fundamental resources and mapping mission of the United States Geological Survey by—

(1) providing integrated topographic, geologic, geochemical, and geophysical mapping;

(2) accelerating the integration and consolidation of geospatial and resource data; and

(3) providing interpretation of subsurface and above-ground mineral resources data.

(d) COOPERATIVE AGREEMENTS.—

(1) IN GENERAL.—In carrying out the Initiative, the Director of the United States Geological Survey may enter into cooperative agreements with State geological surveys.

(2) EFFECT.—Nothing in paragraph (1) precludes the Director of the United States Geological Survey from using existing contracting authorities in carrying out the Initiative.

(e) COMPREHENSIVE MAPPING MODERNIZATION.—

(1) IN GENERAL.—Not later than 10 years after the date of enactment of this Act, the Initiative shall complete an initial comprehensive national modern surface and subsurface mapping and data integration effort.
(2) **APPROACH.**—In carrying out paragraph (1) with regard to minerals, mineralization, and mineral deposits, the Initiative shall focus on the full range of minerals, using a whole ore body approach rather than a single commodity approach, to emphasize all of the recoverable critical minerals in a given surface or subsurface deposit.

(3) **PRIORITY.**—In carrying out paragraph (1) with regard to minerals, mineralization, and mineral deposits, the Initiative shall prioritize mapping and assessing critical minerals.

(4) **INCLUSIONS.**—In carrying out paragraph (1), the Initiative shall—

(A) map and collect data for areas containing mine waste to increase understanding of above-ground critical mineral resources in previously disturbed areas; and

(B) provide for analysis of samples, including samples within the National Geological and Geophysical Data Preservation Program established under section 351(b) of the Energy Policy Act of 2005 (42 U.S.C. 15908(b)) for the occurrence of critical minerals.

(f) **AVAILABILITY.**—The Initiative shall make the geospatial data and metadata gathered by the Initiative
under subsection (e)(1) electronically publicly accessible
on an ongoing basis.

(g) INTEGRATION OF DATA SOURCES.—The Initiative shall integrate data sources, including data from—

(1) the National Cooperative Geologic Mapping Program established by section 4(a)(1) of the National Geologic Mapping Act of 1992 (43 U.S.C. 31c(a)(1));

(2) the National Geological and Geophysical Data Preservation Program established under section 351(b) of the Energy Policy Act of 2005 (42 U.S.C. 15908(b));

(3) the USMIN Mineral Deposit Database of the United States Geological Survey;

(4) the 3D Elevation Program established under section 5(a) of the National Landslide Preparedness Act (43 U.S.C. 3104(a)); and

(5) other relevant sources, including sources providing geothermal resources data.

(h) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $64,000,000 for each of fiscal years 2022 through 2026, to remain available until expended.
SEC. 2002. NATIONAL COOPERATIVE GEOLOGIC MAPPING PROGRAM.

(a) IN GENERAL.—Section 4(d) of the National Geologic Mapping Act of 1992 (43 U.S.C. 31c(d)) is amended by adding at the end the following:

“(4) ABANDONED MINE LAND AND MINE WASTE COMPONENT.—

“(A) IN GENERAL.—The geologic mapping program shall include an abandoned mine land and mine waste geologic mapping component, the objective of which shall be to establish the geologic framework of abandoned mine land and other land containing mine waste determined to be vital to the economic, social, environmental, or scientific welfare of the United States.

“(B) MAPPING PRIORITIES.—For the component described in subparagraph (A), the priority shall be mapping abandoned mine land and other land containing mine waste where multiple critical mineral (as defined in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a))) and metal commodities are anticipated to be present, rather than single mineral resources.”.
(b) Authorization of Appropriations.—Section 9(a) of the National Geologic Mapping Act of 1992 (43 U.S.C. 31h(a)) is amended by striking “2023” and inserting “2031”.

SEC. 2003. NATIONAL GEOLOGICAL AND GEOPHYSICAL DATA PRESERVATION PROGRAM.

Section 351(b) of the Energy Policy Act of 2005 (42 U.S.C. 15908(b)) is amended—

(1) in paragraph (2), by striking “and” after the semicolon;

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

(3) by adding at the end the following:

“(4) to provide for preservation of samples to track geochemical signatures from critical mineral (as defined in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a))) ore bodies for use in provenance tracking frameworks.”.

SEC. 2004. USGS ENERGY AND MINERALS RESEARCH FACILITY.

(a) Establishment.—The Director of the United States Geological Survey (referred to in this section as “the Director”), shall fund, through a cooperative agreement with an academic partner, the design, construction,
and tenant build-out of a facility to support energy and minerals research and appurtenant associated structures.

(b) OWNERSHIP.—The United States Geological Survey shall retain ownership of the facility and associated structures described in subsection (a).

(c) AGREEMENTS.—The Director may enter into agreements with, and to collect and expend funds or in-kind contributions from, academic, Federal, State, or other tenants over the life of the facility described in subsection (a) for the purposes of—

(1) facility planning;
(2) design;
(3) maintenance;
(4) operation; or
(5) facility improvements.

(d) LEASES.—The Director may enter into a lease or other agreement with the academic partner with which the Director has entered into a cooperative agreement under subsection (a), at no cost to the Federal Government, to obtain land on which to construct the facility described in that subsection for a term of not less than 99 years.

(e) REPORTS.—The Director shall submit to Congress annual reports on—

(1) the facility described in subsection (a); and
(2) the authorities used under this section.

(f) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary of the Interior to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $167,000,000 for fiscal year 2022, to remain available until expended.

SEC. 2005. RARE EARTH ELEMENTS DEMONSTRATION FACILITY.

Section 7001 of the Energy Act of 2020 (42 U.S.C. 13344) is amended—

(1) in subsection (b), by inserting “and annually thereafter while the facility established under subsection (c) remains in operation,” after “enactment of this Act,”;

(2) by redesignating subsection (c) as subsection (d); and

(3) by inserting after subsection (b) the following:

“(c) Rare Earth Demonstration Facility.—

“(1) Establishment.—In coordination with the research program under subsection (a)(1)(A), the Secretary shall fund, through an agreement with an academic partner, the design, construction, and build-out of a facility to demonstrate the feasibility
of a full-scale integrated rare earth element concentrator and refinery.

“(2) FACILITY ACTIVITIES.—The facility established under paragraph (1) shall—

“(A) utilize acid mine drainage as a feedstock;

“(B) separate mixed rare earth oxides into pure oxides of each rare earth element;

“(C) refine rare earth oxides into rare earth metals; and

“(D) provide for separation of rare earth oxides and refining into rare earth metals at a single site.

“(3) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this subsection, out of any amounts in the Treasury not otherwise appropriated, $140,000,000 for fiscal year 2022, to remain available until expended.”.

SEC. 2006. CRITICAL MINERALS SUPPLY CHAINS AND RELIABILITY.

(a) DEFINITION OF CRITICAL MINERAL.—In this section, the term “critical mineral” has the meaning given the term in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a)).
(b) Sense of Congress.—It is the sense of Congress that—

(1) critical minerals are fundamental to the economy, competitiveness, and security of the United States;

(2) many critical minerals are only economic to recover when combined with the production of a host mineral;

(3) to the maximum extent practicable, the critical mineral needs of the United States should be satisfied by minerals responsibly produced and recycled in the United States; and

(4) the Federal permitting process has been identified as an impediment to mineral production and the mineral security of the United States.

(e) Federal Permitting and Review Performance Improvements.—To improve the quality and timeliness of Federal permitting and review processes with respect to critical mineral production on Federal land, the Secretary of the Interior, acting through the Director of the Bureau of Land Management, and the Secretary of Agriculture, acting through the Chief of the Forest Service (referred to in this section as the “Secretaries”), to the maximum extent practicable, shall complete the Federal permitting and review processes with maximum efficiency
1 and effectiveness, while supporting vital economic growth, by—

(1) establishing and adhering to timelines and schedules for the consideration of, and final decisions regarding, applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land;

(2) establishing clear, quantifiable, and temporal permitting performance goals and tracking progress against those goals;

(3) engaging in early collaboration among agencies, project sponsors, and affected stakeholders—

(A) to incorporate and address the interests of those parties; and

(B) to minimize delays;

(4) ensuring transparency and accountability by using cost-effective information technology to collect and disseminate information regarding individual projects and agency performance;

(5) engaging in early and active consultation with State, local, and Tribal governments—

(A) to avoid conflicts or duplication of effort;

(B) to resolve concerns; and
(C) to allow for concurrent, rather than sequential, reviews;

(6) providing demonstrable improvements in the performance of Federal permitting and review processes, including lower costs and more timely decisions;

(7) expanding and institutionalizing Federal permitting and review process improvements that have proven effective;

(8) developing mechanisms to better communicate priorities and resolve disputes among agencies at the national, regional, State, and local levels; and

(9) developing other practices, such as preapplication procedures.

(d) REVIEW AND REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretaries shall submit to Congress a report that—

(1) identifies additional measures, including regulatory and legislative proposals, if appropriate, that would increase the timeliness of permitting activities for the exploration and development of domestic critical minerals;

(2) identifies options, including cost recovery paid by permit applicants, for ensuring adequate staffing and training of Federal entities and per-
sonnel responsible for the consideration of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land;

(3) quantifies the period of time typically required to complete each step associated with the development and processing of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land, including by—

(A) calculating the range, the mean, the median, the variance, and other statistical measures or representations of the period of time; and

(B) taking into account other aspects that affect the period of time that are outside the control of the Executive branch, such as judicial review, applicant decisions, or State and local government involvement; and

(4) describes actions carried out pursuant to subsection (c).

(e) PERFORMANCE METRIC.—Not later than 90 days after the date of submission of the report under subsection (d), and after providing public notice and an opportunity to comment, the Secretaries, using as a baseline the period
of time quantified under paragraph (3) of that subsection, shall develop and publish a performance metric for evaluating the progress made by the Executive branch to expedite the permitting of activities that will increase exploration for, and development of, domestic critical minerals, while maintaining environmental standards.

(f) Annual Reports.—Not later than the date on which the President submits the first budget of the President under section 1105 of title 31, United States Code, after publication of the performance metric required under subsection (e), and annually thereafter, the Secretaries shall submit to Congress a report that—

1. summarizes the implementation of recommendations, measures, and options identified in paragraphs (1) and (2) of subsection (d);

2. using the performance metric developed under subsection (e), describes progress made by the Executive branch, as compared to the baseline developed pursuant to subsection (d)(3), in expediting the permitting of activities that will increase exploration for, and development of, domestic critical minerals; and

3. compares the United States to other countries in terms of permitting efficiency and any other
criteria relevant to the globally competitive critical minerals industry.

(g) INDIVIDUAL PROJECTS.—Each year, using data contained in the reports submitted under subsection (f), the Director of the Office of Management and Budget shall prioritize inclusion of individual critical mineral projects on the website operated by the Office of Management and Budget in accordance with section 1122 of title 31, United States Code.

SEC. 2007. BATTERY PROCESSING AND MANUFACTURING.

(a) DEFINITIONS.—In this section:

(1) ADVANCED BATTERY.—The term “advanced battery” means a high-capacity battery that—

(A) has a robust battery cell and module;

and

(B) is used in energy storage applications, including electric vehicles and the electric grid.

(2) ADVANCED BATTERY COMPONENT.—

(A) IN GENERAL.—The term “advanced battery component” means a component of an advanced battery.

(B) INCLUSIONS.—The term “advanced battery component” includes materials, enhancements, enclosures, anodes, cathodes, elec-
trolytes, cells, and other associated technologies that comprise an advanced battery.

(3) BATTERY MATERIAL.—The term “battery material” means the raw and processed form of a mineral, metal, chemical, or other material used in an advanced battery component.

(4) ELIGIBLE ENTITY.—The term “eligible entity” means an entity described in any of paragraphs (1) through (5) of section 989(b) of the Energy Policy Act of 2005 (42 U.S.C. 16353(b)).

(5) MANUFACTURING.—The term “manufacturing”, with respect to an advanced battery and an advanced battery component, means the industrial and chemical steps taken to produce that advanced battery or advanced battery component, respectively.

(6) PROCESSING.—The term “processing”, with respect to battery material, means the refining of critical materials, including the treating, baking, and coating processes used to convert raw products into operable components of an advanced battery.

(7) RECYCLING.—The term “recycling” means the recovery of critical materials from batteries to be reused in similar applications, including the extracting, processing, and recoating of battery materials and advanced battery components.
(b) Battery Material Processing Grants.—

(1) In general.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish within the Office of Fossil Energy a program, to be known as the “Battery Material Processing Grant Program” (referred to in this subsection as the “program”), under which the Secretary shall award grants in accordance with this subsection.

(2) Purposes.—The purposes of the program are—

(A) to ensure that the United States has a viable battery materials processing industry to supply the North American battery supply chain;

(B) to expand the capabilities of the United States in advanced battery manufacturing; and

(C) to enhance national security by reducing the reliance of the United States on foreign competitors for critical materials and technologies.

(3) Grants.—
(A) IN GENERAL.—Under the program, the Secretary shall award grants to eligible entities—

(i) to carry out a demonstration project for the processing of battery materials;

(ii) to construct a new commercial-scale battery material processing facility; and

(iii) to retool, retrofit, or expand an existing battery material processing facility determined qualified by the Secretary.

(B) AMOUNT LIMITATION.—The amount of a grant awarded under the program shall be not less than—

(i) $50,000,000 for a project described in subparagraph (A)(i);

(ii) $100,000,000 for a project described in subparagraph (A)(ii); and

(iii) $50,000,000 for a project described in subparagraph (A)(iii).

(C) PRIORITY; CONSIDERATION.—In awarding grants to eligible entities under the program, the Secretary shall—
(i) give priority to an eligible entity that—

(I) is located in the United States; and

(II) deploys United States-owned intellectual property and content; and

(ii) take into consideration whether a project—

(I) provides workforce opportunities in low- and moderate-income communities;

(II) encourages partnership with universities and laboratories to spur innovation and drive down costs; and

(III) takes into account greenhouse gas emissions reductions and energy efficient battery material processing opportunities.

(4) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out the program, out of any amounts in the Treasury not otherwise appropriated, $3,000,000,000 for the period of fiscal years 2022 through 2026, to remain available until expended.
(c) Battery Manufacturing and Recycling Grants.—

(1) In general.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish within the Office of Energy Efficiency and Renewable Energy a battery manufacturing and recycling grant program (referred to in this subsection as the “program”).

(2) Purpose.—The purpose of the program is to ensure that the United States has a viable domestic manufacturing and recycling capability to support and sustain a North American battery supply chain.

(3) Grants.—

(A) In general.—Under the program, the Secretary shall award grants to eligible entities—

(i) to carry out demonstration projects for advanced battery component manufacturing, advanced battery manufacturing, and recycling;

(ii) to construct a new commercial-scale advanced battery component manufacturing, advanced battery manufacturing, or recycling facility; and
(iii) to retool, retrofit, or expand an existing facility, determined qualified by the Secretary, for advanced battery component manufacturing, advanced battery manufacturing, or battery recycling.

(B) AMOUNT LIMITATION.—The amount of a grant awarded under the program shall be not less than—

(i) $50,000,000 for a project described in subparagraph (A)(i);

(ii) $100,000,000 for a project described in subparagraph (A)(ii); and

(iii) $50,000,000 for a project described in subparagraph (A)(iii).

(C) PRIORITY; CONSIDERATION.—In awarding grants to eligible entities under the program, the Secretary shall—

(i) give priority to an eligible entity that—

(I) is located and operates in the United States; and

(II) deploys United States-owned intellectual property and content; and

(ii) take into consideration whether a project—
(I) provides workforce opportunities in low- and moderate-income communities;

(II) provides workforce opportunities in communities that have lost jobs due to the displacement of fossil energy jobs;

(III) encourages partnership with universities and laboratories to spur innovation and drive down costs; and

(IV) takes into account greenhouse gas emissions reductions and energy efficient manufacturing opportunities.

(4) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out the program, out of any amounts in the Treasury not otherwise appropriated, $3,000,000,000 for the period of fiscal years 2022 through 2026, to remain available until expended.

(d) Reporting Requirements.—Not later than 1 year after the date of enactment of this Act, and annually thereafter, the Secretary shall submit to Congress a report on the grant programs established under subsections (b)
and (c), including, with respect to each grant program, a description of—

(1) the number of grant applications received;

(2) the number of grants awarded and the amount of each award; and

(3) the purpose and status of each project carried out using a grant.

(c) Lithium-Ion Battery Recycling Prize Competition.—

(1) In general.—The Secretary shall continue to carry out the Lithium-Ion Battery Recycling Prize Competition of the Department established pursuant to section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719) (referred to in this subsection as the “competition”).

(2) Additional funding for pilot projects.—

(A) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out Phase III of the competition, out of any amounts in the Treasury not otherwise appropriated, $10,000,000 for fiscal year 2022, to remain available until expended.
(B) USE OF FUNDS.—The Secretary may use amounts made available under subparagraph (A)—

(i) to increase the number of winners of Phase III of the competition;
(ii) to increase the amount awarded to each winner of Phase III of the competition; and
(iii) to carry out any other activity that is consistent with the goals of Phase III of the competition, as determined by the Secretary.

(f) TASK FORCE ON BATTERY PRODUCER REQUIREMENTS.—

(1) DEFINITIONS.—In this subsection:

(A) BATTERY.—The term “battery” means a device that—

(i) consists of 1 or more electrochemical cells that are electrically connected; and
(ii) is designed to store and deliver electric energy.

(B) BATTERY PRODUCER.—The term “battery producer” means, with respect to a battery or battery-containing product that is
sold, offered for sale, or distributed for sale in
the United States, including through retail,
wholesale, business-to-business, and online sale,
the following applicable entity:

(i) A person who—

(I) manufactures the battery or
battery-containing product; and

(II) sells or offers for sale the
battery or battery-containing product
under the brand of that person.

(ii) If there is no person described in
clause (i) with respect to the battery or
battery-containing product, the owner or li-
censee of the brand under which the bat-
tery or battery-containing product is sold,
offered for sale, or distributed, regardless
of whether the trademark of the brand is
registered.

(iii) If there is no person described in
clause (i) or (ii) with respect to the battery
or battery-containing product, a person
that imports the battery or battery-con-
taining product into the United States for
sale or distribution.
(C) Battery-containing product.—

The term “battery-containing product” means a new or unused product that contains or is packaged with a battery.

(2) Task force.—The Secretary shall convene a task force to develop a battery producer responsibility framework that—

(A) addresses battery recycling goals, cost structures for mandatory recycling, reporting requirements, product design, collection models, and transportation of collected materials;

(B) provides sufficient flexibility to allow battery producers to determine cost-effective strategies for compliance with the framework; and

(C) outlines regulatory pathways for effective recycling.

(3) Task force members.—Members of the task force convened under paragraph (2) shall include—

(A) battery producers, manufacturers, retailers, recyclers, collectors, and refiners;

(B) States and municipalities; and

(C) other relevant stakeholders, as determined by the Secretary.
(4) REPORT.—Not later than 1 year after the date on which the Secretary convenes the task force under paragraph (2), the Secretary shall submit to Congress a report that—

(A) describes the producer responsibility framework developed by the task force;

(B) includes the recommendations of the task force on how best to implement potential enforcement mechanism to ensure that battery producers and sellers are contributing to the recycling of batteries; and

(C) suggests regulatory pathways for effective recycling.

SEC. 2008. ELECTRIC DRIVE VEHICLE BATTERY RECYCLING AND SECOND-LIFE APPLICATIONS PROGRAM.

Section 641 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17231) is amended—

(1) by striking subsection (k) and inserting the following:

“(k) ELECTRIC DRIVE VEHICLE BATTERY SECOND-LIFE APPLICATIONS AND RECYCLING.—

“(1) DEFINITIONS.—In this subsection:

“(A) BATTERY RECYCLING AND SECOND-LIFE APPLICATIONS PROGRAM.—The term ‘battery recycling and second-life applications pro-
gram’ means the electric drive vehicle battery recycling and second-life applications program established under paragraph (3).

“(B) CRITICAL MATERIAL.—The term ‘critical material’ has the meaning given the term in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a)).

“(C) ECONOMICALLY DISTRESSED AREA.—The term ‘economically distressed area’ means an area described in section 301(a) of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3161(a)).

“(D) ELECTRIC DRIVE VEHICLE BATTERY.—The term ‘electric drive vehicle battery’ means any battery that is a motive power source for an electric drive vehicle.

“(E) ELIGIBLE ENTITY.—The term ‘eligible entity’ means an entity described in any of paragraphs (1) through (5) of section 989(b) of the Energy Policy Act of 2005 (42 U.S.C. 16353(b)).

“(2) PROGRAM.—The Secretary shall carry out a program of research, development, and demonstration of—
“(A) second-life applications for energy storage devices that have been used to power electric drive vehicles; and

“(B) technologies and processes for final recycling and disposal of the devices described in subparagraph (A).

“(3) ELECTRIC DRIVE VEHICLE BATTERY RECYCLING AND SECOND-LIFE APPLICATIONS.—

“(A) IN GENERAL.—In carrying out the program under paragraph (2), the Secretary shall establish an electric drive vehicle battery recycling and second-life applications program under which the Secretary shall—

“(i) award grants under subparagraph (D); and

“(ii) carry out other activities in accordance with this paragraph.

“(B) PURPOSES.—The purposes of the battery recycling and second-life applications program are the following:

“(i) To improve the recycling and second-use rates of electric drive vehicle batteries.

“(ii) To optimize the design and adaptability of electric drive vehicle bat-
teries to make electric drive vehicle batteries more easily recyclable.

“(iii) To establish alternative supply chains for critical materials that are found in electric drive vehicle batteries.

“(iv) To reduce the cost of manufacturing, installation, purchase, operation, and maintenance of electric drive vehicle batteries.

“(v) To improve the environmental impact of electric drive vehicle battery recycling processes.

“(C) TARGETS.—In carrying out the battery recycling and second-life applications program, the Secretary shall address near-term (up to 2 years), mid-term (up to 5 years), and long-term (up to 10 years) challenges to the recycling of electric drive vehicle batteries.

“(D) GRANTS.—

“(i) IN GENERAL.—In carrying out the battery recycling and second-life applications program, the Secretary shall award multiyear grants on a competitive, merit-reviewed basis to eligible entities—
“(I) to conduct research, development, testing, and evaluation of solutions to increase the rate and productivity of electric drive vehicle battery recycling; and

“(II) for research, development, and demonstration projects to create innovative and practical approaches to increase the recycling and second-use of electric drive vehicle batteries, including by addressing—

“(aa) technology to increase the efficiency of electric drive vehicle battery recycling and maximize the recovery of critical materials for use in new products;

“(bb) expanded uses for critical materials recovered from electric drive vehicle batteries;

“(cc) product design and construction to facilitate the disassembly and recycling of electric drive vehicle batteries;

“(dd) product design and construction and other tools and
techniques to extend the lifecycle of electric drive vehicle batteries, including methods to promote the safe second-use of electric drive vehicle batteries;

“(ee) strategies to increase consumer acceptance of, and participation in, the recycling of electric drive vehicle batteries;

“(ff) improvements and changes to electric drive vehicle battery chemistries that include ways to decrease processing costs for battery recycling without sacrificing front-end performance;

“(gg) second-use of electric drive vehicle batteries, including in applications outside of the automotive industry; and

“(hh) the commercialization and scale-up of electric drive vehicle battery recycling technologies.
“(ii) PRIORITY.—In awarding grants under clause (i), the Secretary shall give priority to projects that—

“(I) are located in geographically diverse regions of the United States;

“(II) include business commercialization plans that have the potential for the recycling of electric drive vehicle batteries at high volumes;

“(III) support the development of advanced manufacturing technologies that have the potential to improve the competitiveness of the United States in the international electric drive vehicle battery manufacturing sector;

“(IV) provide the greatest potential to reduce costs for consumers and promote accessibility and community implementation of demonstrated technologies;

“(V) increase disclosure and transparency of information to consumers;
“(VI) support the development or demonstration of projects in economically distressed areas; and

“(VII) support other relevant priorities, as determined to be appropriate by the Secretary.

“(iii) SOLICITATION.—Not later than 90 days after the date of enactment of the Energy Infrastructure Act, and annually thereafter, the Secretary shall conduct a national solicitation for applications for grants described in clause (i).

“(iv) DISSEMINATION OF RESULTS.—The Secretary shall publish the results of the projects carried out through grants awarded under clause (i) through—

“(I) best practices relating to those grants, for use in the electric drive vehicle battery manufacturing, design, installation, refurbishing, or recycling industries;

“(II) coordination with information dissemination programs relating to general recycling of electronic devices; and
“(III) educational materials for the public, produced in conjunction with State and local governments or nonprofit organizations, on the problems and solutions relating to the recycling and second-life applications of electric drive vehicle batteries.

“(E) COORDINATION WITH OTHER PROGRAMS OF THE DEPARTMENT.—In carrying out the battery recycling and second-life applications program, the Secretary shall coordinate and leverage the resources of complementary efforts of the Department.

“(F) STUDY AND REPORT.—

“(i) STUDY.—The Secretary shall conduct a study on the viable market opportunities available for the recycling, second-use, and manufacturing of electric drive vehicle batteries in the United States.

“(ii) REPORT.—Not later than January 1, 2022, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and any other
relevant committee of Congress a report containing the results of the study under clause (i), including a description of—

“(I) the ability of relevant businesses or other entities to competitively manufacture electric drive vehicle batteries and recycle electric drive vehicle batteries in the United States;

“(II) any existing electric drive vehicle battery recycling and second-use practices and plans of electric drive vehicle manufacturing companies in the United States;

“(III) any barriers to electric drive vehicle battery recycling in the United States;

“(IV) opportunities and barriers in electric drive vehicle battery supply chains in the United States and internationally, including with allies and trading partners;

“(V) opportunities for job creation in the electric drive vehicle battery recycling and manufacturing fields and the necessary skills employ-
ees must acquire for growth of those fields in the United States;

“(VI) policy recommendations for enhancing electric drive vehicle battery manufacturing and recycling in the United States;

“(VII) any recommendations for lowering logistics costs and creating better coordination and efficiency with respect to the removal, collection, transportation, storage, and disassembly of electric drive vehicle batteries;

“(VIII) any recommendations for areas of coordination with other Federal agencies to improve electric drive vehicle battery recycling rates in the United States;

“(IX) an aggressive 2-year target and plan, the implementation of which shall begin during the 90-day period beginning on the date on which the report is submitted, to enhance the competitiveness of electric drive vehi-
ele battery manufacturing and recycling in the United States; and

“(X) needs for future research, development, and demonstration projects in electric drive vehicle battery manufacturing, recycling, and related areas, as determined by the Secretary.

“(G) Evaluation.—Not later than 3 years after the date on which the report under subparagraph (F)(ii) is submitted, and every 4 years thereafter, the Secretary shall conduct, and make available to the public and the relevant committees of Congress, an independent review of the progress of the grants awarded under subparagraph (D) in meeting the recommendations and targets included in the report.”; and

(2) in subsection (p)—

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

(B) in paragraph (4), by adding “and” at the end;

(C) in paragraph (5), by striking “; and” and inserting a period;

(D) by striking paragraph (6);
(E) by redesignating paragraphs (1) through (5) as subparagraphs (A) through (E), respectively, and indenting appropriately;

(F) by striking the subsection designation and heading and all that follows through “There are” in the matter preceding subparagraph (A) (as so redesignated) and inserting the following:

“(p) FUNDING.—

“(1) AUTHORIZATION OF APPROPRIATIONS.—

There are”; and

(G) by adding at the end the following:

“(2) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out the electric drive vehicle battery second-life applications and recycling program under subsection (k), out of any amounts in the Treasury not otherwise appropriated, $40,000,000 for each of fiscal years 2022 through 2026.”.

SEC. 2009. ADVANCED ENERGY MANUFACTURING AND RECYCLING GRANT PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ADVANCED ENERGY PROPERTY.—The term “advanced energy property” means—
(A) property designed to be used to produce energy from the sun, water, wind, geothermal or hydrothermal (as those terms are defined in section 612 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17191)) resources, enhanced geothermal systems (as defined in that section), or other renewable resources;

(B) fuel cells, microturbines, or energy storage systems and components;

(C) electric grid modernization equipment or components;

(D) property designed to capture, remove, use, or sequester carbon oxide emissions;

(E) equipment designed to refine, electrolyze, or blend any fuel, chemical, or product that is—

(i) renewable; or

(ii) low-carbon and low-emission;

(F) property designed to produce energy conservation technologies (including for residential, commercial, and industrial applications);

(G)(i) light-, medium-, or heavy-duty electric or fuel cell vehicles;
(ii) technologies, components, and materials of those vehicles; and

(iii) charging or refueling infrastructure associated with those vehicles;

(H)(i) hybrid vehicles with a gross vehicle weight rating of not less than 14,000 pounds; and

(ii) technologies, components, and materials for those vehicles; and

(I) other advanced energy property designed to reduce greenhouse gas emissions, as may be determined by the Secretary.

(2) COVERED CENSUS TRACT.—The term “covered census tract” means a census tract—

(A) in which, after December 31, 1999, a coal mine had closed;

(B) in which, after December 31, 2009, a coal-fired electricity generating unit had been retired; or

(C) that is immediately adjacent to a census tract described in subparagraph (A) or (B).

(3) ELIGIBLE ENTITY.—The term “eligible entity” means a manufacturing firm—

(A) the gross annual sales of which are less than $100,000,000;
(B) that has fewer than 500 employees at
the plant site of the manufacturing firm; and

(C) the annual energy bills of which total
more than $100,000 but less than $2,500,000.

(4) MINORITY-OWNED.—The term “minority-
owned”, with respect to an eligible entity, means an
eligible entity not less than 51 percent of which is
owned by 1 or more Black American, Native Amer-
ican, Hispanic American, or Asian American individ-
uals.

(5) PROGRAM.—The term “Program” means
the grant program established under subsection (b).

(6) QUALIFYING ADVANCED ENERGY
PROJECT.—The term “qualifying advanced energy
project” means a project that—

(A)(i) re-equiops, expands, or establishes a
manufacturing or recycling facility for the pro-
duction or recycling, as applicable, of advanced
energy property; or

(ii) re-equiops an industrial or manufac-
turing facility with equipment designed to re-
duce the greenhouse gas emissions of that facil-
ity substantially below the greenhouse gas emis-
sions under current best practices, as deter-
mined by the Secretary, through the installation
of—

(I) low- or zero-carbon process heat
systems;

(II) carbon capture, transport, utilization, and storage systems;

(III) technology relating to energy efficiency and reduction in waste from industrial processes; or

(IV) any other industrial technology
that significantly reduces greenhouse gas
emissions, as determined by the Secretary;

(B) has a reasonable expectation of commercial viability, as determined by the Secretary; and

(C) is located in a covered census tract.

(b) Establishment.—Not later than 180 days after
the date of enactment of this Act, the Secretary shall est-

establish a program to award grants to eligible entities to
carry out qualifying advanced energy projects.

(c) Applications.—

(1) In general.—Each eligible entity seeking
a grant under the Program shall submit to the Sec-
retary an application at such time, in such manner,
and containing such information as the Secretary
may require, including a description of the proposed
qualifying advanced energy project to be carried out
using the grant.

(2) SELECTION CRITERIA.—

(A) PROJECTS.—In selecting eligible enti-
ties to receive grants under the Program, the
Secretary shall, with respect to the qualifying
advanced energy projects proposed by the eligi-
ble entities, give higher priority to projects
that—

(i) will provide higher net impact in
avoiding or reducing anthropogenic emis-
sions of greenhouse gases;

(ii) will result in a higher level of dom-
estic job creation (both direct and indi-
rect) during the lifetime of the project;

(iii) will result in a higher level of job
creation in the vicinity of the project, par-
icularly with respect to—

(I) low-income communities (as
described in section 45D(e) of the In-
ternal Revenue Code of 1986); and

(II) dislocated workers who were
previously employed in manufacturing,
coal power plants, or coal mining;
(iv) have higher potential for technological innovation and commercial deployment;

(v) have a lower levelized cost of—

(I) generated or stored energy; or

(II) measured reduction in energy consumption or greenhouse gas emission (based on costs of the full supply chain); and

(vi) have a shorter project time.

(B) ELIGIBLE ENTITIES.—In selecting eligible entities to receive grants under the Program, the Secretary shall give priority to eligible entities that are minority-owned.

(d) PROJECT COMPLETION AND LOCATION; RETURN OF UNOBLIGATED FUNDS.—

(1) COMPLETION; RETURN OF UNOBLIGATED FUNDS.—An eligible entity that receives a grant under the Program shall be required—

(A) to complete the qualifying advanced energy project funded by the grant not later than 3 years after the date of receipt of the grant funds; and
(B) to return to the Secretary any grant funds that remain unobligated at the end of that 3-year period.

(2) LOCATION.—If the Secretary determines that an eligible entity awarded a grant under the Program has carried out the applicable qualifying advanced energy project at a location that is materially different from the location specified in the application for the grant, the eligible entity shall be required to return the grant funds to the Secretary.

(c) TECHNICAL ASSISTANCE.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall provide technical assistance on a selective basis to eligible entities that are seeking a grant under the Program to enhance the impact of the qualifying advanced energy project to be carried out using the grant with respect to the selection criteria described in subsection (c)(2)(A).

(2) APPLICATIONS.—An eligible entity desiring technical assistance under paragraph (1) shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.
(3) Factors for Consideration.—In selecting eligible entities for technical assistance under paragraph (1), the Secretary shall give higher priority to eligible entities that propose a qualifying advanced energy project that has greater potential for enhancement of the impact of the project with respect to the selection criteria described in subsection (c)(2)(A).

(f) Publication of Grants.—The Secretary shall make publicly available the identity of each eligible entity awarded a grant under the Program and the amount of the grant.

(g) Report.—Not later than 4 years after the date of enactment this Act, the Secretary shall—

(1) review the grants awarded under the Program; and

(2) submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing those grants.

(h) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out the Program, out of any amounts in the Treasury not otherwise appropriated, $150,000,000 for each of fiscal years 2022 through 2026.
TITLE III—FUELS AND TECHNOLOGY INFRASTRUCTURE INVESTMENTS

Subtitle A—Carbon Capture, Utilization, Storage, and Transportation Infrastructure

SEC. 3001. FINDINGS.

Congress finds that—

(1) the industrial sector is integral to the economy of the United States—

(A) providing millions of jobs and essential products; and

(B) demonstrating global leadership in manufacturing and innovation;

(2) carbon capture and storage technologies are necessary for reducing hard-to-abate emissions from the industrial sector, which emits nearly 25 percent of carbon dioxide emissions in the United States;

(3) carbon removal and storage technologies, including direct air capture, must be deployed at large-scale in the coming decades to remove carbon dioxide directly from the atmosphere;

(4) large-scale deployment of carbon capture, removal, utilization, transport, and storage—
(A) is critical for achieving mid-century climate goals; and

(B) will drive regional economic development, technological innovation, and high-wage employment;

(5) carbon capture, removal, and utilization technologies require a backbone system of shared carbon dioxide transport and storage infrastructure to enable large-scale deployment, realize economies of scale, and create an interconnected carbon management market;

(6) carbon dioxide transport infrastructure and permanent geological storage are proven and safe technologies with existing Federal and State regulatory frameworks;

(7) carbon dioxide transport and storage infrastructure share similar barriers to deployment previously faced by other types of critical national infrastructure, such as high capital costs and chicken-and-egg challenges, that require Federal and State support, in combination with private investment, to be overcome; and

(8) each State should take into consideration, with respect to new carbon dioxide transportation infrastructure—
(A) qualifying the infrastructure as pollution control devices under applicable laws (including regulations) of the State; and

(B) establishing a waiver of ad valorem and property taxes for the infrastructure for a period of not less than 10 years.

SEC. 3002. CARBON UTILIZATION PROGRAM.

Section 969A of the Energy Policy Act of 2005 (42 U.S.C. 16298a) is amended—

(1) in subsection (a)—

(A) by redesignating paragraphs (3) and (4) as paragraphs (4) and (5), respectively; and

(B) by inserting after paragraph (2) the following:

“(3) to develop or obtain, in coordination with other applicable Federal agencies and standard-setting organizations, standards and certifications, as appropriate, to facilitate the commercialization of the products and technologies described in paragraph (2);”;

(2) in subsection (b)—

(A) by redesignating paragraph (2) as paragraph (3);

(B) by inserting after paragraph (1) the following:
“(2) Grant program.—

“(A) In general.—Not later than 1 year after the date of enactment of the Energy Infrastructure Act, the Secretary shall establish a program to provide grants to eligible entities to use in accordance with subparagraph (D).

“(B) Eligible entities.—To be eligible to receive a grant under this paragraph, an entity shall be—

“(i) a State;

“(ii) a unit of local government; or

“(iii) a public utility or agency.

“(C) Applications.—Eligible entities desiring a grant under this paragraph shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

“(D) Use of funds.—An eligible entity shall use a grant received under this paragraph to procure and use commercial or industrial products that—

“(i) use or are derived from anthropogenic carbon oxides; and
“(ii) demonstrate significant net reductions in lifecycle greenhouse gas emissions compared to incumbent technologies, processes, and products.”; and

(C) in paragraph (3) (as so redesignated), by striking “paragraph (1)” and inserting “this subsection”;

(3) in subsection (c)(4), by striking “, subject to the availability of appropriations”; and

(4) by striking subsection (d) and inserting the following:

“(d) APPROPRIATIONS.—In addition to amounts otherwise made available, there are appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated—

“(1) $41,000,000 for fiscal year 2022;
“(2) $65,250,000 for fiscal year 2023;
“(3) $66,562,500 for fiscal year 2024;
“(4) $67,940,625 for fiscal year 2025; and
“(5) $69,387,656 for fiscal year 2026.”.

SEC. 3003. CARBON CAPTURE TECHNOLOGY PROGRAM.

Section 962(b)(2) of the Energy Policy Act of 2005 (42 U.S.C. 16292(b)(2)) is amended—

(1) in subparagraph (C), by striking “and” at the end;
(2) in subparagraph (D), by striking “program.” and inserting “program for carbon capture technologies; and”; and

(3) by adding at the end the following:

“(E) a front-end engineering and design program for carbon dioxide transport infrastructure necessary to enable deployment of carbon capture, utilization, and storage technologies.”.

SEC. 3004. CARBON DIOXIDE TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION.

(a) IN GENERAL.—Title IX of the Energy Policy Act of 2005 (42 U.S.C. 16181 et seq.) is amended by adding at the end the following:

“Subtitle J—Carbon Dioxide Transportation Infrastructure Finance and Innovation

“SEC. 999A. DEFINITIONS.

“In this subtitle:

“(1) CIFIA PROGRAM.—The term ‘CIFIA program’ means the carbon dioxide transportation infrastructure finance and innovation program established under section 999B(a).
“(2) COMMON CARRIER.—The term ‘common carrier’ means a transportation infrastructure operator or owner that—

“(A) publishes a publicly available tariff containing the just and reasonable rates, terms, and conditions of nondiscriminatory service; and

“(B) holds itself out to provide transportation services to the public for a fee.

“(3) CONTINGENT COMMITMENT.—The term ‘contingent commitment’ means a commitment to obligate funds from future available budget authority that is—

“(A) contingent on those funds being made available in law at a future date; and

“(B) not an obligation of the Federal Government.

“(4) ELIGIBLE PROJECT COSTS.—The term ‘eligible project costs’ means amounts substantially all of which are paid by, or for the account of, an obligor in connection with a project, including—

“(A) the cost of—

“(i) development-phase activities, including planning, feasibility analysis, revenue forecasting, environmental review,
permitting, preliminary engineering and
design work, and other preconstruction ac-
tivities;

“(ii) construction, reconstruction, re-
habilitation, replacement, and acquisition
of real property (including land relating to
the project and improvements to land), en-
vironmental mitigation, construction con-
tingencies, and acquisition and installation
of equipment (including labor); and

“(iii) capitalized interest necessary to
meet market requirements, reasonably re-
quired reserve funds, capital issuance ex-
penses, and other carrying costs during
construction; and

“(B) transaction costs associated with fi-
nancing the project, including—

“(i) the cost of legal counsel and tech-
nical consultants; and

“(ii) any subsidy amount paid in ac-
cordance with section 999B(c)(3)(B)(ii) or
section 999C(b)(6)(B)(ii).

“(5) **FEDERAL CREDIT INSTRUMENT**.—The
term ‘Federal credit instrument’ means a secured
loan or loan guarantee authorized to be provided under the CIFIA program with respect to a project.

“(6) LENDER.—The term ‘lender’ means a qualified institutional buyer (as defined in section 230.144A(a) of title 17, Code of Federal Regulations (or a successor regulation), commonly known as Rule 144A(a) of the Securities and Exchange Commission and issued under the Securities Act of 1933 (15 U.S.C. 77a et seq.)), that is not a Federal qualified institutional buyer.

“(7) LETTER OF INTEREST.—The term ‘letter of interest’ means a letter submitted by a potential applicant prior to an application for credit assistance in a format prescribed by the Secretary on the website of the CIFIA program that—

“(A) describes the project and the location, purpose, and cost of the project;

“(B) outlines the proposed financial plan, including the requested credit and grant assistance and the proposed obligor;

“(C) provides a status of environmental review; and

“(D) provides information regarding satisfaction of other eligibility requirements of the CIFIA program.
“(8) Loan Guarantee.—The term ‘loan guarantee’ means any guarantee or other pledge by the Secretary to pay all or part of the principal of, and interest on, a loan made to an obligor, or debt obligation issued by an obligor, in each case funded by a lender.

“(9) Master Credit Agreement.—The term ‘master credit agreement’ means a conditional agreement that—

“(A) is for the purpose of extending credit assistance for—

“(i) a project of high priority under section 999B(e)(3)(A); or

“(ii) a project covered under section 999B(e)(3)(B);

“(B) does not provide for a current obligation of Federal funds; and

“(C) would—

“(i) make a contingent commitment of a Federal credit instrument or grant at a future date, subject to—

“(I) the availability of future funds being made available to carry out the CIFIA program; and
“(II) the satisfaction of all conditions for the provision of credit assistance under the CIFIA program, including section 999C(b);

“(ii) establish the maximum amounts and general terms and conditions of the Federal credit instruments or grants;

“(iii) identify the 1 or more revenue sources that will secure the repayment of the Federal credit instruments;

“(iv) provide for the obligation of funds for the Federal credit instruments or grants after all requirements have been met for the projects subject to the agreement, including—

“(I) compliance with all applicable requirements specified under the CIFIA program, including sections 999B(d) and 999C(b)(1); and

“(II) the availability of funds to carry out the CIFIA program; and

“(v) require that contingent commitments shall result in a financial close and obligation of credit or grant assistance by not later than 4 years after the date of
entry into the agreement or release of the
commitment, as applicable, unless other-
wise extended by the Secretary.

“(10) OBLIGOR.—The term ‘obligor’ means a
corporation, partnership, joint venture, trust, non-
Federal governmental entity, agency, or instrument-
tality, or other entity that is liable for payment of
the principal of, or interest on, a Federal credit in-
strument.

“(11) PRODUCED IN THE UNITED STATES.—
The term ‘produced in the United States’, with re-
spect to iron and steel, means that all manufac-
turing processes for the iron and steel, including the
application of any coating, occurs within the United
States.

“(12) PROJECT.—The term ‘project’ means a
project for common carrier carbon dioxide transpor-
tation infrastructure or associated equipment, in-
cluding pipeline, shipping, rail, or other transpor-
tation infrastructure and associated equipment, that
will transport or handle carbon dioxide captured
from anthropogenic sources or ambient air, as the
Secretary determines to be appropriate.

“(13) PROJECT OBLIGATION.—The term
‘project obligation’ means any note, bond, debenture,
or other debt obligation issued by an obligor in connection with the financing of a project, other than a Federal credit instrument.

“(14) SECURED LOAN.—The term ‘secured loan’ means a direct loan to an obligor or a debt obligation issued by an obligor and purchased by the Secretary, in each case funded by the Secretary in connection with the financing of a project under section 999C.

“(15) SUBSIDY AMOUNT.—The term ‘subsidy amount’ means the amount of budget authority sufficient to cover the estimated long-term cost to the Federal Government of a Federal credit instrument—

“(A) calculated on a net present value basis; and

“(B) excluding administrative costs and any incidental effects on governmental receipts or outlays in accordance with the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.).

“(16) SUBSTANTIAL COMPLETION.—The term ‘substantial completion’, with respect to a project, means the date—

“(A) on which the project commences transportation of carbon dioxide; or
“(B) of a comparable event to the event described in subparagraph (A), as determined by the Secretary and specified in the project credit agreement.

“SEC. 999B. DETERMINATION OF ELIGIBILITY AND PROJECT SELECTION.

“(a) Establishment of Program.—The Secretary shall establish and carry out a carbon dioxide transportation infrastructure finance and innovation program, under which the Secretary shall provide for eligible projects in accordance with this subtitle—

“(1) a Federal credit instrument under section 999C;

“(2) a grant under section 999D; or

“(3) both a Federal credit instrument and a grant.

“(b) Eligibility.—

“(1) In general.—A project shall be eligible to receive a Federal credit instrument or a grant under the CIFIA program if—

“(A) the entity proposing to carry out the project submits a letter of interest prior to submission of an application under paragraph (3) for the project; and
“(B) the project meets the criteria described in this subsection.

“(2) CREDITWORTHINESS.—

“(A) IN GENERAL.—Each project and obligor that receives a Federal credit instrument or a grant under the CIFIA program shall be creditworthy, such that there exists a reasonable prospect of repayment of the principal and interest on the Federal credit instrument, as determined by the Secretary under subparagraph (B).

“(B) REASONABLE PROSPECT OF REPAYMENT.—The Secretary shall base a determination of whether there is a reasonable prospect of repayment under subparagraph (A) on a comprehensive evaluation of whether the obligor has a reasonable prospect of repaying the Federal credit instrument for the eligible project, including evaluation of—

“(i) the strength of the contractual terms of an eligible project (if available for the applicable market segment);

“(ii) the forecast of nonecontractual cash flows supported by market projections from reputable sources, as determined by
the Secretary, and cash sweeps or other structural enhancements;

“(iii) the projected financial strength of the obligor—

“(I) at the time of loan close; and

“(II) throughout the loan term, including after the project is completed;

“(iv) the financial strength of the investors and strategic partners of the obligor, if applicable; and

“(v) other financial metrics and analyses that are relied on by the private lending community and nationally recognized credit rating agencies, as determined appropriate by the Secretary.

“(3) APPLICATIONS.—To be eligible for assistance under the CIFIA program, an obligor shall submit to the Secretary a project application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

“(4) ELIGIBLE PROJECT COSTS.—A project under the CIFIA program shall have eligible project
costs that are reasonably anticipated to equal or exceed $100,000,000.

“(5) Revenue sources.—The applicable Federal credit instrument shall be repayable, in whole or in part, from—

“(A) user fees;

“(B) payments owing to the obligor under a public-private partnership; or

“(C) other revenue sources that also secure or fund the project obligations.

“(6) Obligor will be identified later.—A State, local government, agency, or instrumentality of a State or local government, or a public authority, may submit to the Secretary an application under paragraph (3), under which a private party to a public-private partnership will be—

“(A) the obligor; and

“(B) identified at a later date through completion of a procurement and selection of the private party.

“(7) Beneficial effects.—The Secretary shall determine that financial assistance for each project under the CIFIA program will—

“(A) attract public or private investment for the project; or
“(B) enable the project to proceed at an earlier date than the project would otherwise be able to proceed or reduce the lifecycle costs (including debt service costs) of the project.

“(8) PROJECT READINESS.—To be eligible for assistance under the CIFIA program, the applicant shall demonstrate a reasonable expectation that the contracting process for construction of the project can commence by not later than 90 days after the date on which a Federal credit instrument or grant is obligated for the project under the CIFIA program.

“(c) SELECTION AMONG ELIGIBLE PROJECTS.—

“(1) ESTABLISHMENT OF APPLICATION PROCESS.—The Secretary shall establish an application process under which projects that are eligible to receive assistance under subsection (b) may—

“(A) receive credit assistance on terms acceptable to the Secretary, if adequate funds are available (including any funds provided on behalf of an eligible project under paragraph (3)(B)(ii)) to cover the subsidy amount associated with the Federal credit instrument; and

“(B) receive grants under section 999D if—
“(i) adequate funds are available to cover the amount of the grant; and
“(ii) the Secretary determines that the project is eligible under subsection (b).
“(2) PRIORITY.—In selecting projects to receive credit assistance under subsection (b), the Secretary shall give priority to projects that—
“(A) are large-capacity, common carrier infrastructure;
“(B) have demonstrated demand for use of the infrastructure by associated projects that capture carbon dioxide from anthropogenic sources or ambient air;
“(C) enable geographical diversity in associated projects that capture carbon dioxide from anthropogenic sources or ambient air, with the goal of enabling projects in all major carbon dioxide-emitting regions of the United States; and
“(D) are sited within, or adjacent to, existing pipeline or other linear infrastructure corridors, in a manner that minimizes environmental disturbance and other siting concerns.
“(3) MASTER CREDIT AGREEMENTS.—
“(A) PRIORITY PROJECTS.—The Secretary may enter into a master credit agreement for a project that the Secretary determines—

“(i) will likely be eligible for credit assistance under subsection (b), on obtaining—

“(I) additional commitments from associated carbon capture projects to use the project; or

“(II) all necessary permits and approvals; and

“(ii) is a project of high priority, as determined in accordance with the criteria described in paragraph (2).

“(B) ADEQUATE FUNDING NOT AVAILABLE.—If the Secretary fully obligates funding to eligible projects for a fiscal year and adequate funding is not available to fund a Federal credit instrument, a project sponsor (including a unit of State or local government) of an eligible project may elect—

“(i)(I) to enter into a master credit agreement in lieu of the Federal credit instrument; and
“(II) to wait to execute a Federal credit instrument until the fiscal year for which additional funds are available to receive credit assistance; or

“(ii) if the lack of adequate funding is solely with respect to amounts available for the subsidy amount, to pay the subsidy amount to fund the Federal credit instrument.

“(d) FEDERAL REQUIREMENTS.—

“(1) IN GENERAL.—Nothing in this subtitle supersedes the applicability of any other requirement under Federal law (including regulations).

“(2) NEPA.—Federal credit assistance may only be provided under this subtitle for a project that has received an environmental categorical exclusion, a finding of no significant impact, or a record of decision under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

“(e) USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS.—

“(1) IN GENERAL.—Except as provided in paragraph (2), no Federal credit instrument or grant provided under the CIFIA program shall be made available for a project unless all iron, steel, and
manufactured goods used in the project are produced in the United States.

“(2) EXCEPTIONS.—Paragraph (1) shall not apply in any case or category of cases with respect to which the Secretary determines that—

“(A) the application would be inconsistent with the public interest;

“(B) iron, steel, or a relevant manufactured good is not produced in the United States in sufficient and reasonably available quantity, or of a satisfactory quality; or

“(C) the inclusion of iron, steel, or a manufactured good produced in the United States will increase the cost of the overall project by more than 25 percent.

“(3) WAIVERS.—If the Secretary receives a request for a waiver under this subsection, the Secretary shall—

“(A) make available to the public a copy of the request, together with any information available to the Secretary concerning the request—

“(i) on an informal basis; and
“(ii) by electronic means, including on
the official public website of the Depart-
ment;
“(B) allow for informal public comment re-
lating to the request for not fewer than 15 days
before making a determination with respect to
the request; and
“(C) approve or disapprove the request by
not later than the date that is 120 days after
the date of receipt of the request.
“(4) APLICABILITY.—This subsection shall be
applied in accordance with any applicable obligations
of the United States under international agreements.
“(f) APLICATION PROCESSING PROCEDURES.—
“(1) NOTICE OF COMPLETE APPLICATION.—
Not later than 30 days after the date of receipt of
an application under this section, the Secretary shall
provide to the applicant a written notice describing
whether—
“(A) the application is complete; or
“(B) additional information or materials
are needed to complete the application.
“(2) APPROVAL OR DENIAL OF APPLICATION.—
Not later than 60 days after the date of issuance of
a written notice under paragraph (1), the Secretary

shall provide to the applicant a written notice inform- 
ing the applicant whether the Secretary has ap- 
proved or disapproved the application.

“(g) DEVELOPMENT-PHASE ACTIVITIES.—Any Fed- 
eral credit instrument provided under the CIFIA program 
may be used to finance up to 100 percent of the cost of 
development-phase activities, as described in section 
999A(4)(A).

“SEC. 999C. SECURED LOANS.

“(a) AGREEMENTS.—

“(1) IN GENERAL.—Subject to paragraph (2), 
the Secretary may enter into agreements with 1 or 
more obligors to make secured loans, the proceeds of 
which—

“(A) shall be used—

“(i) to finance eligible project costs of 
any project selected under section 999B;

“(ii) to refinance interim construction 
financing of eligible project costs of any 
project selected under section 999B; or

“(iii) to refinance long-term project 
obligations or Federal credit instruments, 
if the refinancing provides additional fund- 
ing capacity for the completion, enhance-

ment, or expansion of any project that—
“(I) is selected under section 999B; or
“(II) otherwise meets the requirements of that section; and
“(B) may be used in accordance with subsection (b)(7) to pay any fees collected by the Secretary under subparagraph (B) of that subsection.

“(2) Risk Assessment.—Before entering into an agreement under this subsection, the Secretary, in consultation with the Director of the Office of Management and Budget, shall determine an appropriate credit subsidy amount for each secured loan, taking into account all relevant factors, including the creditworthiness factors under section 999B(b)(2).

“(b) Terms and Limitations.—

“(1) In General.—A secured loan under this section with respect to a project shall be on such terms and conditions and contain such covenants, representations, warranties, and requirements (including requirements for audits) as the Secretary determines to be appropriate.

“(2) Maximum Amount.—The amount of a secured loan under this section shall not exceed an
amount equal to 80 percent of the reasonably anticipated eligible project costs.

“(3) PAYMENT.—A secured loan under this section shall be payable, in whole or in part, from—

“(A) user fees;

“(B) payments owing to the obligor under a public-private partnership; or

“(C) other revenue sources that also secure or fund the project obligations.

“(4) INTEREST RATE.—

“(A) IN GENERAL.—Except as provided in subparagraph (B), the interest rate on a secured loan under this section shall be not less than the interest rate reflected in the yield on United States Treasury securities of a similar maturity to the maturity of the secured loan on the date of execution of the loan agreement.

“(B) LIMITED BUYPRENS.—

“(i) IN GENERAL.—Subject to clause (iii), the Secretary may lower the interest rate of a secured loan under this section to not lower than the interest rate described in clause (ii), if the interest rate has increased during the period—
“(I) beginning on, as applicable—

“(aa) the date on which an application acceptable to the Secretary is submitted for the applicable project; or

“(bb) the date on which the Secretary entered into a master credit agreement for the applicable project; and

“(II) ending on the date on which the Secretary executes the Federal credit instrument for the applicable project that is the subject of the secured loan.

“(ii) DESCRIPTION OF INTEREST RATE.—The interest rate referred to in clause (i) is the interest rate reflected in the yield on United States Treasury securities of a similar maturity to the maturity of the secured loan in effect, as applicable to the project that is the subject of the secured loan, on—

“(I) the date described in clause (i)(I)(aa); or
“(II) the date described in clause (i)(I)(bb).

“(iii) LIMITATION.—The interest rate of a secured loan may not be lowered pursuant to clause (i) by more than 1½ percentage points (150 basis points).

“(5) MATURITY DATE.—The final maturity date of the secured loan shall be the earlier of—

“(A) the date that is 35 years after the date of substantial completion of the project; and

“(B) if the useful life of the capital asset being financed is of a lesser period, the date that is the end of the useful life of the asset.

“(6) NONSUBORDINATION.—

“(A) IN GENERAL.—Except as provided in subparagraph (B), the secured loan shall not be subordinated to the claims of any holder of project obligations in the event of bankruptcy, insolvency, or liquidation of the obligor.

“(B) PREEXISTING INDENTURE.—

“(i) IN GENERAL.—The Secretary shall waive the requirement under subparagraph (A) for a public agency borrower that is financing ongoing capital programs
and has outstanding senior bonds under a preexisting indenture, if—

“(I) the secured loan is rated in the A category or higher; and

“(II) the secured loan is secured and payable from pledged revenues not affected by project performance, such as a tax-backed revenue pledge or a system-backed pledge of project revenues.

“(ii) LIMITATION.—If the Secretary waives the nonsubordination requirement under this subparagraph—

“(I) the maximum credit subsidy amount to be paid by the Federal Government shall be not more than 10 percent of the principal amount of the secured loan; and

“(II) the obligor shall be responsible for paying the remainder of the subsidy amount, if any.

“(7) FEES.—

“(A) IN GENERAL.—The Secretary may collect a fee on or after the date of the financial close of a Federal credit instrument under this
section in an amount equal to not more than
$3,000,000 to cover all or a portion of the costs
to the Federal Government of providing the
Federal credit instrument.

“(B) Amendment to add cost of fees
to secured loan.—If the Secretary collects a
fee from an obligor under subparagraph (A) to
cover all or a portion of the costs to the Federal
Government of providing a secured loan, the ob-
ligor and the Secretary may amend the terms
of the secured loan to add to the principal of
the secured loan an amount equal to the
amount of the fee collected by the Secretary.

“(8) Maximum Federal involvement.—The
total Federal assistance provided for a project under
the CIFIA program, including any grant provided
under section 999D, shall not exceed an amount
equal to 80 percent of the eligible project costs.

“(c) Repayment.—

“(1) Schedule.—The Secretary shall establish
a repayment schedule for each secured loan under
this section based on—

“(A) the projected cash flow from project
revenues and other repayment sources; and

“(B) the useful life of the project.
“(2) Commencement.—Scheduled loan repayments of principal or interest on a secured loan under this section shall commence not later than 5 years after the date of substantial completion of the project.

“(3) Deferred payments.—

“(A) In general.—If, at any time after the date of substantial completion of a project, the project is unable to generate sufficient revenues in excess of reasonable and necessary operating expenses to pay the scheduled loan repayments of principal and interest on the secured loan, the Secretary may, subject to subparagraph (C), allow the obligor to add unpaid principal and interest to the outstanding balance of the secured loan.

“(B) Interest.—Any payment deferred under subparagraph (A) shall—

“(i) continue to accrue interest in accordance with subsection (b)(4) until fully repaid; and

“(ii) be scheduled to be amortized over the remaining term of the loan.

“(C) Criteria.—
“(i) In general.—Any payment deferral under subparagraph (A) shall be contingent on the project meeting criteria established by the Secretary.

“(ii) Repayment standards.—The criteria established pursuant to clause (i) shall include standards for the reasonable prospect of repayment.

“(4) Prepayment.—

“(A) Use of excess revenues.—Any excess revenues that remain after satisfying scheduled debt service requirements on the project obligations and secured loan and all deposit requirements under the terms of any trust agreement, bond resolution, or similar agreement securing project obligations may be applied annually to prepay the secured loan, without penalty.

“(B) Use of proceeds of refinancing.—A secured loan may be prepaid at any time without penalty from the proceeds of refinancing from non-Federal funding sources.

“(d) Sale of secured loans.—

“(1) In general.—Subject to paragraph (2), as soon as practicable after substantial completion of
a project and after notifying the obligor, the Secretary may sell to another entity or reoffer into the capital markets a secured loan for the project if the Secretary determines that the sale or reoffering can be made on favorable terms.

“(2) Consent of obligor.—In making a sale or reoffering under paragraph (1), the Secretary may not change any original term or condition of the secured loan without the written consent of the obligor.

“(e) Loan guarantees.—

“(1) In general.—The Secretary may provide a loan guarantee to a lender in lieu of making a secured loan under this section if the Secretary determines that the budgetary cost of the loan guarantee is substantially the same as, or less than, that of a secured loan.

“(2) Terms.—The terms of a loan guarantee under paragraph (1) shall be consistent with the terms required under this section for a secured loan, except that the rate on the guaranteed loan and any prepayment features shall be negotiated between the obligor and the lender, with the consent of the Secretary.
"SEC. 999D. FUTURE GROWTH GRANTS."

“(a) Establishment.—The Secretary may provide grants to pay a portion of the cost differential, with respect to any projected future increase in demand for carbon dioxide transportation by an infrastructure project described in subsection (b), between—

“(1) the cost of constructing the infrastructure asset with the capacity to transport an increased flow rate of carbon dioxide, as made practicable under the project; and

“(2) the cost of constructing the infrastructure asset with the capacity to transport carbon dioxide at the flow rate initially required, based on commitments for the use of the asset.

“(b) Eligibility.—To be eligible to receive a grant under this section, an entity shall—

“(1) be eligible to receive credit assistance under the CIFIA program;

“(2) carry out, or propose to carry out, a project for large-capacity, common carrier infrastructure with a probable future increase in demand for carbon dioxide transportation; and

“(3) submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate."
“(c) Use of Funds.—A grant provided under this section may be used only to pay the costs of any additional flow rate capacity of a carbon dioxide transportation infrastructure asset that the project sponsor demonstrates to the satisfaction of the Secretary can reasonably be expected to be used during the 20-year period beginning on the date of substantial completion of the project described in subsection (b)(2).

“(d) Maximum Amount.—The amount of a grant provided under this section may not exceed an amount equal to 80 percent of the cost of the additional capacity described in subsection (a).

“Sec. 999e. Program Administration.

“(a) Requirement.—The Secretary shall establish a uniform system to service the Federal credit instruments provided under the CIFIA program.

“(b) Fees.—If funding sufficient to cover the costs of services of expert firms retained pursuant to subsection (d) and all or a portion of the costs to the Federal Government of servicing the Federal credit instruments is not provided in an appropriations Act for a fiscal year, the Secretary, during that fiscal year, may collect fees on or after the date of the financial close of a Federal credit instrument provided under the CIFIA program at a level that is sufficient to cover those costs.
“(c) Servicer.—

“(1) IN GENERAL.—The Secretary may appoint a financial entity to assist the Secretary in servicing the Federal credit instruments.

“(2) DUTIES.—A servicer appointed under paragraph (1) shall act as the agent for the Secretary.

“(3) Fee.—A servicer appointed under paragraph (1) shall receive a servicing fee, subject to approval by the Secretary.

“(d) Assistance From Expert Firms.—The Secretary may retain the services of expert firms, including counsel, in the field of municipal and project finance to assist in the underwriting and servicing of Federal credit instruments.

“(e) Expedited Processing.—The Secretary shall implement procedures and measures to economize the time and cost involved in obtaining approval and the issuance of credit assistance under the CIFIA program.

“SEC. 999F. STATE AND LOCAL PERMITS.

“The provision of credit assistance under the CIFIA program with respect to a project shall not—

“(1) relieve any recipient of the assistance of any project obligation to obtain any required State
or local permit or approval with respect to the project;

“(2) limit the right of any unit of State or local government to approve or regulate any rate of return on private equity invested in the project; or

“(3) otherwise supersede any State or local law (including any regulation) applicable to the construction or operation of the project.

“SEC. 999G. REGULATIONS.

“The Secretary may promulgate such regulations as the Secretary determines to be appropriate to carry out the CIFIA program.

“SEC. 999H. FUNDING.

“(a) Funding.—

“(1) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this subtitle, out of any amounts in the Treasury not otherwise appropriated—

“(A) $600,000,000 for each of fiscal years 2022 and 2023; and

“(B) $300,000,000 for each of fiscal years 2024 through 2026.

“(2) Spending and borrowing authority.—Spending and borrowing authority for a fiscal
year to enter into Federal credit instruments shall be promptly apportioned to the Secretary on a fiscal-year basis.

“(3) REESTIMATES.—If the subsidy amount of a Federal credit instrument is reestimated, the cost increase or decrease of the reestimate shall be borne by, or benefit, the general fund of the Treasury, consistent with section 504(f) of the Congressional Budget Act of 1974 (2 U.S.C. 661c(f)).

“(4) ADMINISTRATIVE COSTS.—Of the amounts made available to carry out the CIFIA program, the Secretary may use not more than $9,000,000 (as indexed for United States dollar inflation from the date of enactment of the Energy Infrastructure Act (as measured by the Consumer Price Index)) each fiscal year for the administration of the CIFIA program.

“(b) CONTRACT AUTHORITY.—

“(1) IN GENERAL.—Notwithstanding any other provision of law, execution of a term sheet by the Secretary of a Federal credit instrument that uses amounts made available under the CIFIA program shall impose on the United States a contractual obligation to fund the Federal credit investment.
“(2) Availability.—Amounts made available to carry out the CIFIA program for a fiscal year shall be available for obligation on October 1 of the fiscal year.”.

(b) Technical Amendments.—The table of contents for the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 600) is amended—

(1) in the item relating to section 917, by striking “Efficiency”;

(2) by striking the items relating to subtitle J of title IX (relating to ultra-deepwater and unconventional natural gas and other petroleum resources) and inserting the following:

“Subtitle J—Carbon Dioxide Transportation Infrastructure Finance and Innovation

“Sec. 999A. Definitions.
“Sec. 999B. Determination of eligibility and project selection.
“Sec. 999C. Secured loans.
“Sec. 999D. Future growth grants.
“Sec. 999E. Program administration.
“Sec. 999F. State and local permits.
“Sec. 999G. Regulations.
“Sec. 999H. Funding.”; and

(3) by striking the item relating to section 969B and inserting the following:

“Sec. 969B. High efficiency turbines.”.

SEC. 3005. CARBON STORAGE VALIDATION AND TESTING.

Section 963 of the Energy Policy Act of 2005 (42 U.S.C. 16293) is amended—
(1) in subsection (a)(1)(B), by striking “over a 10-year period”;

(2) in subsection (b)—

(A) in paragraph (1), by striking “and demonstration” and inserting “demonstration, and commercialization”; and

(B) in paragraph (2)—

(i) in subparagraph (G), by striking “and” at the end;

(ii) in subparagraph (H), by striking the period at the end and inserting “; and”; and

(iii) by adding at the end the following:

“(I) evaluating the quantity, location, and timing of geologic carbon storage deployment that may be needed, and developing strategies and resources to enable the deployment.”;

(3) by redesignating subsections (e) through (g) as subsections (f) through (h), respectively;

(4) by inserting after subsection (d) the following:

“(e) LARGE-SCALE CARBON STORAGE COMMERCIALIZATION PROGRAM.—
“(1) IN GENERAL.—The Secretary shall establish a commercialization program under which the Secretary shall provide funding for the development of new or expanded commercial large-scale carbon sequestration projects and associated carbon dioxide transport infrastructure, including funding for the feasibility, site characterization, permitting, and construction stages of project development.

“(2) APPLICATIONS; SELECTION.—

“(A) IN GENERAL.—To be eligible to enter into an agreement with the Secretary for funding under paragraph (1), an entity shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

“(B) APPLICATION PROCESS.—The Secretary shall establish an application process that, to the maximum extent practicable—

“(i) is open to projects at any stage of development described in paragraph (1); and

“(ii) facilitates expeditious development of projects described in that paragraph.
“(C) Project selection.—In selecting projects for funding under paragraph (1), the Secretary shall give priority to—

“(i) projects with substantial carbon dioxide storage capacity; or

“(ii) projects that will store carbon dioxide from multiple carbon capture facilities.”;

(5) in subsection (f) (as so redesignated), in paragraph (1), by inserting “with respect to the research, development, demonstration program components described in subsections (b) through (d)” before “give preference”; and

(6) by striking subsection (h) (as so redesignated) and inserting the following:

“(h) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $500,000,000 for each of fiscal years 2022 through 2026.”.

SEC. 3006. SECURE GEOLOGIC STORAGE PERMITTING.

(a) Definitions.—In this section:

(1) Administrator.—The term “Administrator” means the Administrator of the Environmental Protection Agency.
(2) **CLASS VI WELL.**—The term “Class VI well” means a well described in section 144.6(f) of title 40, Code of Federal Regulations (or successor regulations).

(b) **GEOLeGIC SEQUESTRATION PERMITTING.**—In addition to amounts otherwise made available, there is appropriated to the Administrator for the permitting of Class VI wells by the Administrator for the injection of carbon dioxide for the purpose of geologic sequestration in accordance with the requirements of the Safe Drinking Water Act (42 U.S.C. 300f et seq.) and the final rule of the Administrator entitled “Federal Requirements Under the Underground Injection Control (UIC) Program for Carbon Dioxide (CO$_2$) Geologic Sequestration (GS) Wells” (75 Fed. Reg. 77230 (December 10, 2010)), out of any amounts not otherwise appropriated, $5,000,000 for each of fiscal years 2022 through 2026.

(c) **STATE PERMITTING PROGRAM GRANTS.**—

(1) **ESTABLISHMENT.**—The Administrator shall award grants to States that, pursuant to section 1422 of the Safe Drinking Water Act (42 U.S.C. 300h–1), receive the approval of the Administrator for a State underground injection control program for permitting Class VI wells for the injection of carbon dioxide.
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(2) USE OF FUNDS.—A State that receives a
grant under paragraph (1) shall use the amounts re-
ceived under the grant to defray the expenses of the
State related to the establishment and operation of
a State underground injection control program de-
scribed in paragraph (1).

(3) APPROPRIATIONS.—In addition to amounts
otherwise made available, there is appropriated to
the Administrator to carry out this subsection, out
of any amounts in the Treasury not otherwise appro-
priated, $50,000,000 for each of fiscal years 2022
through 2026.

SEC. 3007. GEOLOGIC CARBON SEQUESTRATION ON THE
OUTER CONTINENTAL SHELF.

(a) DEFINITIONS.—Section 2 of the Outer Con-
tinental Shelf Lands Act (43 U.S.C. 1331) is amended—

(1) in the matter preceding subsection (a), by
striking “When used in this Act—” and inserting
“In this Act:”;

(2) in each subsection, by inserting a subsection
heading, the text of which is comprised of the term
defined in the subsection;

(3) by striking the semicolon at the end of each
subsection (other than subsection (q)) and “; and”
at the end of subsection (p) and inserting a period;
and
(4) by adding at the end the following:
“(r) CARBON DIOXIDE STREAM.—
“(1) IN GENERAL.—The term ‘carbon dioxide stream’ means carbon dioxide that—
“(A) has been captured; and
“(B) consists overwhelmingly of—
“(i) carbon dioxide plus incidental associated substances derived from the source material or capture process; and
“(ii) any substances added to the stream for the purpose of enabling or improving the injection process.
“(2) EXCLUSIONS.—The term ‘carbon dioxide stream’ does not include waste or other matter added to the carbon dioxide stream for the purpose of disposal.
“(s) CARBON SEQUESTRATION.—The term ‘carbon sequestration’ means the act of storing carbon dioxide that has been captured through physical, chemical, or biological processes that can prevent the carbon dioxide from reaching the atmosphere.”.
(b) LEASES, EASEMENTS, OR RIGHTS-OF-WAY FOR ENERGY AND RELATED PURPOSES.—Section 8(p)(1) of
the Outer Continental Shelf Lands Act (43 U.S.C. 1337(p)(1)) is amended—

(1) in subparagraph (C), by striking “or” after the semicolon;

(2) in subparagraph (D), by striking the period at the end and inserting “; or”; and

(3) by adding at the end the following:

“(E) provide for, support, or are directly related to the injection of a carbon dioxide stream into sub-seabed geologic formations for the purpose of long-term carbon sequestration.”.

(c) CLARIFICATION.—A carbon dioxide stream injected for the purpose of carbon sequestration under subparagraph (E) of section 8(p)(1) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(p)(1)) shall not be considered to be material (as defined in section 3 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1402)) for purposes of that Act (33 U.S.C. 1401 et seq.).

(d) REGULATIONS.—Not later than 1 year after the date of enactment of this Act, the Secretary of the Interior shall promulgate regulations to carry out the amendments made by this section.
SEC. 3008. CARBON REMOVAL.

(a) In General.—Section 969D of the Energy Policy Act of 2005 (42 U.S.C. 16298d) is amended—

(1) by redesignating subsection (j) as subsection (k); and

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

"(j) Regional Clean Direct Air Capture Hubs.—

"(1) Definition of regional clean direct air capture hub.—In this subsection, the term ‘regional clean direct air capture hub’ means a network of direct air capture projects, potential carbon dioxide utilization off-takers, and connective infrastructure located in close proximity.

"(2) Establishment of program.—The Secretary shall establish a program to support the development of 4 regional clean direct air capture hubs that—

"(A) demonstrably aid the achievement of capturing carbon dioxide directly from the atmosphere;

"(B) have the capacity to capture and sequester at least 1,000,000 metric tons of carbon dioxide annually;
“(C) demonstrate the capture, processing, delivery, and storage or end-use of captured carbon; and

“(D) could be developed into a national carbon network to facilitate sequestration or carbon utilization.

“(3) SELECTION OF REGIONAL CLEAN DIRECT AIR CAPTURE HUBS.—

“(A) SOLICITATION OF PROPOSALS.—Not later than 180 days after the date of enactment of the Energy Infrastructure Act, the Secretary shall solicit proposals for regional clean direct air capture hubs.

“(B) SELECTION OF HUBS.—Not later than 1 year after the date of the deadline for the submission of proposals under subparagraph (A), the Secretary shall select 4 regional clean direct air capture hubs to be developed under paragraph (2).

“(C) CRITERIA.—The Secretary shall select regional clean direct air capture hubs under subparagraph (B) using the following criteria:

“(i) CARBON INTENSITY OF LOCAL INDUSTRY.—To the maximum extent prac-
ticable, each regional direct air capture hub shall be located in a region with—

“(I) existing carbon intensive fuel production or industrial capacity; or

“(II) carbon intensive fuel production or industrial capacity that has retired or closed in the preceding 10 years.

“(ii) GEOGRAPHIC DIVERSITY.—To the maximum extent practicable, each regional clean direct air capture hub shall be located in a different region of the United States.

“(iii) CARBON POTENTIAL.—To the maximum extent practicable, each regional clean direct air capture hub shall be located in a region with high potential for carbon sequestration or utilization.

“(iv) HUBS IN FOSSIL-PRODUCING REGIONS.—To the maximum extent practicable, at least 2 regional clean direct air capture hubs shall be located in economically distressed communities in the regions of the United States with high levels of coal or shale gas resources.
“(v) Employment.—The Secretary shall give priority to regional clean direct air capture hubs that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents of the region.

“(vi) Additional criteria.—The Secretary may take into consideration other criteria that, in the judgement of the Secretary, are necessary or appropriate to carry out this subsection.

“(D) Funding of regional direct air capture hubs.—The Secretary may make grants or enter into cooperative agreements or contracts to each regional clean direct air capture hub selected under subparagraph (B) to accelerate commercialization of, and demonstrate the capture, processing, delivery, storage, and end-use of carbon from the atmosphere.

“(4) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this subsection, out of any amounts in the Treasury not otherwise
appropriated, $3,500,000,000 for the period of fiscal
years 2022 through 2026.”

Subtitle B—Hydrogen Research
and Development

SEC. 3101. FINDINGS; PURPOSE.

(a) FINDINGS.—Congress finds that—

(1) hydrogen plays a critical part in the com-
prehensive energy portfolio of the United States;

(2) the use of the hydrogen resources of the
United States—

(A) promotes energy security and resil-
ience; and

(B) provides economic value and environ-
mental benefits for diverse applications across
multiple sectors of the economy; and

(3) hydrogen can be produced from a variety of
domestically available clean energy sources, includ-
ing—

(A) renewable energy resources, including
biomass;

(B) fossil fuels with carbon capture, utili-
ization, and storage; and

(C) nuclear power.
(b) PURPOSE.—The purpose of this subtitle is to accelerate research, development, demonstration, and deployment of hydrogen from clean energy sources by—

(1) providing a statutory definition for the term “clean hydrogen”;

(2) establishing a clean hydrogen strategy and roadmap for the United States;

(3) establishing a clearing house for clean hydrogen program information at the National Energy Technology Laboratory;

(4) developing a robust clean hydrogen supply chain and workforce by prioritizing clean hydrogen demonstration projects in economically distressed communities in major shale gas regions;

(5) establishing regional clean hydrogen hubs; and


SEC. 3102. DEFINITIONS.

Section 803 of the Energy Policy Act of 2005 (42 U.S.C. 16152) is amended—
1. in paragraph (5), by striking the paragraph designation and heading and all that follows through "when" in the matter preceding subparagraph (A) and inserting the following:

"(5) PORTABLE; STORAGE.—The terms ‘portable’ and ‘storage’, when”;

2. by redesignating paragraphs (1) through (7) as paragraphs (2) through (8), respectively; and

3. by inserting before paragraph (2) (as so redesignated) the following:

"(1) CLEAN HYDROGEN; HYDROGEN.—The terms ‘clean hydrogen’ and ‘hydrogen’ mean hydrogen produced in compliance with the greenhouse gas emissions standard established under section 822(a), including production from any fuel source.”.

SEC. 3103. CLEAN HYDROGEN RESEARCH AND DEVELOPMENT PROGRAM.

(a) IN GENERAL.—Section 805 of the Energy Policy Act of 2005 (42 U.S. 16154) is amended—

1. in the section heading, by striking “PROGRAMS” and inserting “CLEAN HYDROGEN RESEARCH AND DEVELOPMENT PROGRAM”;

2. in subsection (a)—

(A) by striking “research and development program” and inserting “crosscutting research
and development program (referred to in this section as the ‘program’); and

(B) by inserting “processing,” after “production,”;

(3) by striking subsection (b) and inserting the following:

“(b) GOALS.—The goals of the program shall be—

“(1) to advance research and development to demonstrate and commercialize the use of clean hydrogen in the transportation, utility, industrial, commercial, and residential sectors; and

“(2) to demonstrate a standard of clean hydrogen production in the transportation, utility, industrial, commercial, and residential sectors by 2040.”;

(4) in subsection (c)(3), by striking “renewable fuels and biofuels” and inserting “fossil fuels with carbon capture, utilization, and sequestration, renewable fuels, biofuels, and nuclear energy”;

(5) by striking subsection (e) and inserting the following:

“(e) ACTIVITIES.—In carrying out the program, the Secretary, in partnership with the private sector, shall conduct activities to advance and support—

“(1) the establishment of a series of technology cost goals oriented toward achieving the standard of
clean hydrogen production \[\text{developed under section 822(a)}\];

\((2)\) the production of clean hydrogen from diverse energy sources, including—

\((A)\) fossil fuels with carbon capture, utilization, and sequestration;

\((B)\) hydrogen-carrier fuels (including ethanol and methanol);

\((C)\) renewable energy resources, including biomass;

\((D)\) nuclear energy; and

\((E)\) any other methods the Secretary determines to be appropriate;

\((3)\) the use of clean hydrogen for commercial, industrial, and residential electric power generation;

\((4)\) the use of clean hydrogen in industrial applications, including steelmaking, cement, chemical feedstocks, and process heat;

\((5)\) the use of clean hydrogen for use as a fuel source for both residential and commercial comfort heating and hot water requirements;

\((6)\) the safe and efficient delivery of hydrogen or hydrogen-carrier fuels, including—

\((A)\) transmission by pipelines, including retrofitting the existing natural gas transpor-
tation infrastructure system to enable a transition to transport and deliver increasing levels of clean hydrogen, clean hydrogen blends, or clean hydrogen carriers;

“(B) tanks and other distribution methods; and

“(C) convenient and economic refueling of vehicles—

“(i) at central refueling stations; or

“(ii) through distributed onsite generation;

“(7) advanced vehicle technologies, including—

“(A) engine and emission control systems;

“(B) energy storage, electric propulsion, and hybrid systems;

“(C) automotive materials; and

“(D) other advanced vehicle technologies;

“(8) storage of hydrogen or hydrogen-carrier fuels, including the development of materials for safe and economic storage in gaseous, liquid, or solid form;

“(9) the development of safe, durable, affordable, and efficient fuel cells, including fuel-flexible fuel cell power systems, improved manufacturing processes, high-temperature membranes, cost-effec-
tive fuel processing for natural gas, fuel cell stack and system reliability, low-temperature operation, and cold start capability; and

“(10) the ability of domestic clean hydrogen equipment manufacturers to manufacture commercially available competitive technologies in the United States.”; and

(6) by adding at the end the following:

“(j) TARGETS.—Not later than 180 days after the date of enactment of the Energy Infrastructure Act, the Secretary shall establish targets for the program to address near-term (up to 2 years), mid-term (up to 7 years), and long-term (up to 15 years) challenges to the advancement of clean hydrogen systems and technologies.”.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 599) is amended by striking the item relating to section 805 and inserting the following:

“Sec. 805. Clean hydrogen research and development program.”.

SEC. 3104. ADDITIONAL CLEAN HYDROGEN PROGRAMS.

Title VIII of the Energy Policy Act of 2005 (42 U.S.C. 16151 et seq.) is amended—

(1) by redesignating sections 813 through 816 as sections 818 through 821, respectively; and

(2) by inserting after section 812 the following:
“SEC. 813. REGIONAL CLEAN HYDROGEN HUBS.

“(a) Definition of Regional Clean Hydrogen Hub.—In this section, the term ‘regional clean hydrogen hub’ means a network of clean hydrogen producers, potential clean hydrogen consumers, and connective infrastructure located in close proximity.

“(b) Establishment of Program.—The Secretary shall establish a program to support the development of regional clean hydrogen hubs that—

“(1) demonstrably aid the achievement of the clean hydrogen production standard [developed under section 822(a)];

“(2) demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen; and

“(3) can be developed into a national clean hydrogen network to facilitate a clean hydrogen economy.

“(c) Selection of Regional Clean Hydrogen Hubs.—

“(1) Solicitation of proposals.—Not later than 180 days after the date of enactment of the Energy Infrastructure Act, the Secretary shall solicit proposals for regional clean hydrogen hubs.

“(2) Selection of hubs.—Not later than 1 year after the deadline for the submission of proposals under paragraph (1), the Secretary shall se-
lect 4 regional clean hydrogen hubs to be developed under subsection (b).

“(3) CRITERIA.—The Secretary shall select regional clean hydrogen hubs under paragraph (2) using the following criteria:

“(A) FEEDSTOCK AND END-USE DIVERSITY.—To the maximum extent practicable, at least 1 regional clean hydrogen hub shall demonstrate—

“(i) the production of clean hydrogen from—

“(I) fossil fuels;
“(II) renewable energy; and
“(III) nuclear energy; and
“(ii) the end-use of clean hydrogen in—

“(I) the electric power generation sector;
“(II) the industrial sector;
“(III) the residential and commercial heating sector; and
“(IV) the transportation sector.

“(B) GEOGRAPHIC DIVERSITY.—To the maximum extent practicable, each regional clean hydrogen hub—
“(i) shall be located in a different region of the United States; and

“(ii) shall use energy resources that are abundant in that region.

“(C) Hubs in Natural Gas-Producing Regions.—To the maximum extent practicable, at least 2 regional clean hydrogen hubs shall be located in economically distressed communities in the regions of the United States with the greatest shale gas resources.

“(D) Employment.—The Secretary shall give priority to regional clean hydrogen hubs that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents of the region.

“(E) Additional Criteria.—The Secretary may take into consideration other criteria that, in the judgement of the Secretary, are necessary or appropriate to carry out this title

“(4) Funding of Regional Clean Hydrogen Hubs.—The Secretary may make grants to each regional clean hydrogen hub selected under paragraph (2) to accelerate commercialization of, and dem-
onstrate the production, processing, delivery, storage, and end-use of, clean hydrogen.

“(d) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $8,000,000,000 for the period of fiscal years 2022 through 2026.

“SEC. 814. NATIONAL CLEAN HYDROGEN STRATEGY AND ROADMAP.

“(a) Development.—

“(1) In general.—In carrying out the programs established under sections 805 and 813, the Secretary, in consultation with the heads of relevant offices of the Department, shall develop a national strategy and roadmap to facilitate widescale production, processing, delivery, storage, and use of clean hydrogen.

“(2) Inclusions.—The national clean hydrogen strategy and roadmap developed under paragraph (1) shall focus on—

“(A) establishing a standard of hydrogen production that achieves the standard [developed under section 822(a)], including interim goals towards meeting that standard;
“(B)(i) clean hydrogen production and use from natural gas, coal, renewable energy sources, nuclear energy, and biomass; and

“(ii) identifying potential barriers, pathways, and opportunities, including Federal policy needs, to transition to a clean hydrogen economy;

“(C) identifying—

“(i) economic opportunities for the production, processing, transport, storage, and use of clean hydrogen that exist in the major shale natural gas-producing regions of the United States; and

“(ii) environmental risks associated with potential deployment of clean hydrogen technologies in those regions, and ways to mitigate those risks;

“(D) approaches, including substrategies, that reflect geographic diversity across the country, to advance clean hydrogen based on resources, industry sectors, environmental benefits, and economic impacts in regional economies;

“(E) identifying opportunities to use, and barriers to using, existing infrastructure, in-
including all components of the natural gas infrastructure system, the carbon dioxide pipeline infrastructure system, end-use local distribution networks, end-use power generators, LNG terminals, industrial users of natural gas, and residential and commercial consumers of natural gas, for clean hydrogen deployment;

“(F) identifying the needs for and barriers and pathways to developing clean hydrogen hubs (including, where appropriate, clean hydrogen hubs coupled with carbon capture, utilization, and storage hubs) that—

“(i) are regionally dispersed across the United States and can leverage natural gas shale plays to the maximum extent practicable;

“(ii) can demonstrate the efficient production, processing, delivery, and use of clean hydrogen;

“(iii) include transportation corridors and modes of transportation, including transportation of clean hydrogen by pipeline and rail and through ports; and
“(iv) where appropriate, could serve as joint clean hydrogen and carbon capture, utilization, and storage hubs;

“(G) prioritizing activities that improve the ability of the Department to develop tools to model, analyze, and optimize single-input, multiple-output integrated hybrid energy systems and multiple-input, multiple-output integrated hybrid energy systems that maximize efficiency in providing hydrogen, high-value heat, electricity, and chemical synthesis services;

“(H) identifying the appropriate points of interaction between and among Federal agencies involved in the production, processing, delivery, storage, and use of clean hydrogen and clarifying the responsibilities of those Federal agencies, and potential regulatory obstacles and recommendations for modifications, in order to support the deployment of clean hydrogen; and

“(I) identifying geographic zones or regions in which clean hydrogen technologies could efficiently and economically be introduced in order to transition existing infrastructure to rely on clean hydrogen, in support of
decarbonizing all relevant sectors of the economy.

“(b) Reports to Congress.—

“(1) In general.—Not later than 180 days after the date of enactment of the Energy Infrastructure Act, the Secretary shall submit to Congress the clean hydrogen strategy and roadmap developed under subsection (a).

“(2) Updates.—The Secretary shall submit to Congress updates to the clean hydrogen strategy and roadmap under paragraph (1) not less frequently than once every 3 years after the date on which the Secretary initially submits the report and roadmap.

“SEC. 815. CLEAN HYDROGEN MANUFACTURING AND RECYCLING.

“(a) Clean Hydrogen Manufacturing Initiative.—

“(1) In general.—In carrying out the programs established under sections 805 and 813, the Secretary shall award multiyear grants to, and enter into contracts, cooperative agreements, or any other agreements authorized under this Act or other Federal law with, eligible entities (as determined by the Secretary) for research, development, and demonstration projects to advance new clean hydrogen
production, processing, delivery, storage, and use equipment manufacturing technologies and tech-
niques.

“(2) PRIORITY.—In awarding grants or enter-
ing into contracts, cooperative agreements, or other agreements under paragraph (1), the Secretary, to the maximum extent practicable, shall give priority to clean hydrogen equipment manufacturing projects that—

“(A) increase efficiency and cost-effectiveness in—

“(i) the manufacturing process; and

“(ii) the use of resources, including existing energy infrastructure;

“(B) support domestic supply chains for materials and components;

“(C) identify and incorporate nonhazardous alternative materials for components and devices;

“(D) operate in partnership with tribal en-
ergy development organizations, Indian Tribes, Tribal organizations, Native Hawaiian commu-
nity-based organizations, or territories or freely associated States; or
“(E) are located in economically distressed areas of the major shale natural gas-producing regions of the United States.

“(3) **EVALUATION.**—Not later than 3 years after the date of enactment of the Energy Infrastructure Act, and not less frequently than once every 4 years thereafter, the Secretary shall conduct, and make available to the public and the relevant committees of Congress, an independent review of the progress of the projects carried out through grants awarded, or contracts, cooperative agreements, or other agreements entered into, under paragraph (1).

“(b) **CLEAN HYDROGEN TECHNOLOGY RECYCLING RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.**—

“(1) **IN GENERAL.**—In carrying out the programs established under sections 805 and 813, the Secretary shall award multiyear grants to, and enter into contracts, cooperative agreements, or any other agreements authorized under this Act or other Federal law with, eligible entities for research, development, and demonstration projects to create innovative and practical approaches to increase the reuse
and recycling of clean hydrogen technologies, including by—

“(A) increasing the efficiency and cost-effectiveness of the recovery of raw materials from clean hydrogen technology components and systems, including enabling technologies such as electrolyzers and fuel cells;

“(B) minimizing environmental impacts from the recovery and disposal processes;

“(C) addressing any barriers to the research, development, demonstration, and commercialization of technologies and processes for the disassembly and recycling of devices used for clean hydrogen production, processing, delivery, storage, and use;

“(D) developing alternative materials, designs, manufacturing processes, and other aspects of clean hydrogen technologies;

“(E) developing alternative disassembly and resource recovery processes that enable efficient, cost-effective, and environmentally responsible disassembly of, and resource recovery from, clean hydrogen technologies; and
“(F) developing strategies to increase consumer acceptance of, and participation in, the recycling of fuel cells.

“(2) DISSEMINATION OF RESULTS.—The Secretary shall make available to the public and the relevant committees of Congress the results of the projects carried out through grants awarded, or contracts, cooperative agreements, or other agreements entered into, under paragraph (1), including any educational and outreach materials developed by the projects.

“(c) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $100,000,000 for each of fiscal years 2022 through 2026.

“SEC. 816. CLEAN HYDROGEN ELECTROLYSIS PROGRAM.

“(a) DEFINITIONS.—In this section:

“(1) ELECTROLYSIS.—The term ‘electrolysis’ means a process that uses electricity to split water into hydrogen and oxygen.

“(2) ELECTROLYZER.—The term ‘electrolyzer’ means a system that produces hydrogen using electrolysis.
“(3) PROGRAM.—The term ‘program’ means the program established under subsection (b).

“(b) ESTABLISHMENT.—Not later than 90 days after the date of enactment of the Energy Infrastructure Act, the Secretary shall establish a research, development, demonstration, commercialization, and deployment program for purposes of commercialization to improve the efficiency, increase the durability, and reduce the cost of producing clean hydrogen using electrolysers.

“(c) GOAL.—The goal of the program is to reduce the cost of hydrogen produced using electrolysers to less than $2 per kilogram of hydrogen by 2026.

“(d) DEMONSTRATION PROJECTS.—In carrying out the program, the Secretary shall fund demonstration projects—

“(1) to demonstrate technologies that produce clean hydrogen using electrolysers; and

“(2) to validate information on the cost, efficiency, durability, and feasibility of commercial deployment of the technologies described in paragraph (1).

“(e) FOCUS.—The program shall focus on research relating to, and the development, demonstration, and deployment of—
“(1) low-temperature electrolyzers, including liquid-alkaline electrolyzers, membrane-based electrolyzers, and other advanced electrolyzers, capable of converting intermittent sources of electric power to clean hydrogen with enhanced efficiency and durability;

“(2) high-temperature electrolyzers that combine electricity and heat to improve the efficiency of clean hydrogen production;

“(3) advanced reversible fuel cells that combine the functionality of an electrolyzer and a fuel cell;

“(4) new highly active, selective, and durable electrolyzer catalysts and electro-catalysts that—

“(A) greatly reduce or eliminate the need for platinum group metals; and

“(B) enable electrolysis of complex mixtures with impurities, including seawater;

“(5) modular electrolyzers for distributed energy systems and the bulk-power system (as defined in section 215(a) of the Federal Power Act (16 U.S.C. 824o(a)));

“(6) low-cost membranes or electrolytes and separation materials that are durable in the presence of impurities or seawater;
“(7) improved component design and material integration, including with respect to electrodes, porous transport layers and bipolar plates, and balance-of-system components, to allow for scale-up and domestic manufacturing of electrolyzers at a high volume;

“(8) clean hydrogen storage technologies;

“(9) technologies that integrate hydrogen production with—

“(A) clean hydrogen compression and drying technologies;

“(B) clean hydrogen storage; and

“(C) transportation or stationary systems;

and

“(10) integrated systems that combine hydrogen production with renewable power generation technologies, including hybrid systems with hydrogen storage.

“(f) GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS.—

“(1) GRANTS.—In carrying out the program, the Secretary shall award grants, on a competitive basis, to eligible entities for projects that the Secretary determines would provide the greatest
progress toward achieving the goal of the program described in subsection (c).

“(2) **Contracts and Cooperative Agreements.**—In carrying out the program, the Secretary may enter into contracts and cooperative agreements with eligible entities and Federal agencies for projects that the Secretary determines would further the purpose of the program described in subsection (b).

“(3) **Eligibility; Applications.**—

“(A) **In General.**—The eligibility of an entity to receive a grant under paragraph (1), to enter into a contract or cooperative agreement under paragraph (2), or to receive funding for a demonstration project under subsection (d) shall be determined by the Secretary.

“(B) **Applications.**—An eligible entity desiring to receive a grant under paragraph (1), to enter into a contract or cooperative agreement under paragraph (2), or to receive funding for a demonstration project under subsection (d) shall submit to the Secretary an application at such time, in such manner, and
containing such information as the Secretary may require.

“(g) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out the program, out of any amounts in the Treasury not otherwise appropriated, $200,000,000 for each of fiscal years 2022 through 2026, to remain available until expended.

“SEC. 817. LABORATORY MANAGEMENT.

“(a) In General.—The National Energy Technology Laboratory shall be the lead National Laboratory for purposes of carrying out the programs established under sections 813, 815, and 816.

“(b) Collaboration; Clearinghouse.—In carrying out subsection (a), the National Energy Technology Laboratory shall—

“(1) collaborate with—

“(A) other National Laboratories;

“(B) institutions of higher education;

“(C) research institutes;

“(D) industrial researchers; and

“(E) international researchers; and

“(2) act as a clearinghouse to collect information from, and distribute information to, the Na-
tional Laboratories and other entities described in
subparagraphs (B) through (E) of paragraph (1).”.

SEC. 3105. CLEAN HYDROGEN PRODUCTION QUALIFICATIONS.

(a) IN GENERAL.—The Energy Policy Act of 2005
(42 U.S.C. 16151 et seq.) (as amended by section
3104(1)) is amended by adding at the end the following:

“SEC. 822. CLEAN HYDROGEN PRODUCTION QUALIFICATIONS.

“(a) IN GENERAL.—The Secretary, in consultation
with the Administrator of the Environmental Protection
Agency, shall develop a greenhouse gas emissions standard
for clean hydrogen production that shall apply to activities
carried out under this title.

“(b) APPLICATION.—The standard developed under
subsection (a) shall apply to clean hydrogen production
from renewable, fossil, nuclear, and other fuel sources
using any applicable production technology.’’.

(b) CONFORMING AMENDMENT.—The table of con-
58; 119 Stat. 599) is amended by striking the items relat-
ing to sections 813 through 816 and inserting the fol-
lowing:

“Sec. 813. Regional clean hydrogen hubs.
Sec. 814. National clean hydrogen strategy and roadmap.
Sec. 815. Clean hydrogen manufacturing and recycling.
Sec. 816. Clean hydrogen electrolysis program.
Sec. 817. Laboratory management."
Subtitle C—Nuclear Energy

Infrastructure

SEC. 3201. INFRASTRUCTURE PLANNING FOR MICRO NUCLEAR REACTORS.

(a) Definition of Micro Nuclear Reactor.—In this section, the term “micro nuclear reactor” means a nuclear reactor that has a power production capacity that is not greater than 50 megawatts.

(b) Report.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committees on Energy and Commerce and Science, Space, and Technology of the House of Representatives a report on the plans of the Department to enhance energy resilience with the use of micro nuclear reactors.

(c) Elements.—The report required by subsection (b) shall address the following:

(1) An evaluation by the Department of current resilience and carbon reduction requirements for energy for facilities of the Department to determine whether changes are needed to address—
(A) the causes of, and contributing factors for, the February 2021 Electric Reliability Council of Texas power outages;

(B) the need to provide uninterrupted power to facilities of the Department for at least 3 days during power grid failures;

(C) the need for protection against cyber threats and electromagnetic pulses; and

(D) resilience to extreme natural events, including earthquakes, volcanic activity, tornadoes, hurricanes, floods, tsunamis, seiches, a large quantity of snowfall, and very low or high temperatures.

(2) A strategy of the Department for using nuclear energy to meet resilience and carbon reduction goals of facilities of the Department.

(3) A strategy to partner with private industry to develop and deploy micro nuclear reactors to remote communities in order to replace diesel generation and other fossil fuels.

(4) An assessment by the Department of the value associated with enhancing the resilience of a facility of the Department by transitioning to power from micro nuclear reactors and to co-located nuclear facilities with the capability to provide dedi-
cated power to the facility of the Department during
a grid outage or failure.

(5) The plans of the Department—

(A) for deploying a micro nuclear reactor
at a facility of the Department in the United
States by 2026; and

(B) to include micro nuclear reactors in
the planning for meeting future facility energy
needs.

SEC. 3202. PROPERTY INTERESTS RELATING TO CERTAIN
PROJECTS AND PROTECTION OF INFORMATION RELATING TO CERTAIN AGREEMENTS.

(a) PROPERTY INTERESTS RELATING TO FEDERALLY FUNDED ADVANCED NUCLEAR REACTOR PROJECTS.—

(1) DEFINITIONS.—In this section:

(A) ADVANCED NUCLEAR REACTOR.—The
term “advanced nuclear reactor” has the mean-
ing given the term in section 951(b) of the En-
ergy Policy Act of 2005 (42 U.S.C. 16271(b)).

(B) PROPERTY INTEREST.—

(i) IN GENERAL.—Except as provided
in clause (ii), the term “property interest”
means any interest in real property or per-
sonal property (as those terms are defined
in section 200.1 of title 2, Code of Federal Regulations (as in effect on the date of enactment of this Act)).

(ii) EXCLUSION.—The term “property interest” does not include any interest in intellectual property developed using funding provided under a project described in paragraph (3).

(2) ASSIGNMENT OF PROPERTY INTERESTS.—The Secretary may assign to any entity, including the United States, fee title or any other property interest acquired by the Secretary under an agreement entered into with respect to a project described in paragraph (3).

(3) PROJECT DESCRIBED.—A project referred to in paragraph (2) is—

(A) a project for which funding is provided pursuant to the funding opportunity announcement of the Department numbered DE–FOA–0002271, including any project for which funding has been provided pursuant to that announcement as of the date of enactment of this Act;

(B) any other project for which funding is provided using amounts made available for the
Advanced Reactor Demonstration Program of the Department under the heading “Nuclear Energy” under the heading “ENERGY PROGRAMS” in title III of division C of the Further Consolidated Appropriations Act, 2020 (Public Law 116–94; 133 Stat. 2670); (C) any other project for which Federal funding is provided under the Advanced Reactor Demonstration Program of the Department; or (D) a project—

(i) relating to advanced nuclear reactors; and

(ii) for which Federal funding is provided under a program that is similar to, or a successor of, the Advanced Reactor Demonstration Program of the Department.

(4) RETROACTIVE VESTING.—The vesting of fee title or any other property interest assigned under paragraph (2) shall be retroactive to the date on which the applicable project first received Federal funding as described in any of subparagraphs (A) through (D) of paragraph (3).
(b) Considerations in Cooperative Research and Development Agreements.—

(1) In general.—Section 12(c)(7)(B) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(c)(7)(B)) is amended—

(A) by inserting “(i)” after “(B)”;

(B) in clause (i), as so designated, by
striking “The director” and inserting “Subject to clause (ii), the director”; and

(C) by adding at the end the following:

“(II) The agency may authorize the director to provide appropriate protections against dissemination described in clause (i) for a total period of not more than 30 years if the agency determines that the nature of the information protected against dissemination, including nuclear technology, could reasonably require an extended period of that protection to reach commercialization.”.

(2) Applicability.—

(A) Definition.—In this subsection, the term “cooperative research and development agreement” has the meaning given the term in
section 12(d) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(d)).

(B) RETROACTIVE EFFECT.—Clause (ii) of section 12(c)(7)(B) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(c)(7)(B)), as added by subsection (a) of this section, shall apply with respect to any cooperative research and development agreement that is in effect as of the day before the date of enactment of this Act.

(c) DEPARTMENT OF ENERGY CONTRACTS.—Section 646(g)(5) of the Department of Energy Organization Act (42 U.S.C. 7256(g)(5)) is amended—

(1) by striking “(5) The Secretary” and inserting the following:

“(5) PROTECTION FROM DISCLOSURE.—

“(A) IN GENERAL.—The Secretary”; and

(2) in subparagraph (A) (as so designated)—

(A) by striking “, for up to 5 years after the date on which the information is developed,”; and

(B) by striking “agency.” and inserting the following: “agency—
“(i) for up to 5 years after the date on which the information is developed; or
“(ii) for up to 30 years after the date on which the information is developed, if the Secretary determines that the nature of the technology under the transaction, including nuclear technology, could reasonably require an extended period of protection from disclosure to reach commercialization.

“(B) Extension during term.—The Secretary may extend the period of protection from disclosure during the term of any transaction described in subparagraph (A) in accordance with that subparagraph.”.

SEC. 3203. CIVIL NUCLEAR CREDIT PROGRAM.

(a) Definitions.—In this section:

(1) Certified nuclear reactor.—The term “certified nuclear reactor” means a nuclear reactor that—

(A) competes in a competitive electricity market; and

(B) is certified under subsection (c)(2)(A)(i) to submit a sealed bid in accordance with subsection (d).
(2) Credit.—The term “credit” means a credit allocated to a certified nuclear reactor under subsection (e)(2).

(b) Establishment of Program.—The Secretary shall establish a civil nuclear credit program—

(1) to evaluate nuclear reactors that are projected to cease operations due to economic factors; and

(2) to allocate credits to certified nuclear reactors that are selected under paragraph (1)(B) of subsection (e) to receive credits under paragraph (2) of that subsection.

(c) Certification.—

(1) Application.—

(A) In general.—In order to be certified under paragraph (2)(A)(i), the owner or operator of a nuclear reactor that is projected to cease operations due to economic factors shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate, including—

(i) information on the operating costs necessary to make the determination de-
scribed in paragraph (2)(A)(ii)(I), including—

(I) the average projected annual operating loss in dollars per megawatt-hour expected to be incurred by the nuclear reactor over the 4-year period for which credits would be allocated;

(II) any private or publicly available data with respect to current or projected bulk power market prices;

(III) out-of-market revenue streams;

(IV) operations and maintenance costs;

(V) capital costs, including fuel; and

(VI) operational and market risks;

(ii) an estimate of the potential incremental air pollutants that would result if the nuclear reactor were to cease operations;

(iii) known information on the source of produced uranium and the location
where the uranium is converted, enriched, and fabricated into fuel assemblies for the nuclear reactor for the 4-year period for which credits would be allocated; and

(iv) a detailed plan to sustain operations at the conclusion of the applicable 4-year period for which credits would be allocated—

(I) without receiving additional credits; or

(II) with the receipt of additional credits of a lower amount than the credits allocated during that 4-year credit period.

(B) Timeline.—The Secretary shall accept applications described in subparagraph (A)—

(i) until the date that is 120 days after the date of enactment of this Act; and

(ii) not less frequently than every year thereafter.

(2) Determination to certify.—

(A) Determination.—
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(i) **IN GENERAL.**—Not later than 60
days after the applicable date under sub-
paragraph (B) of paragraph (1), the Sec-
retary shall determine whether to certify,
in accordance with clauses (ii) and (iii),
each nuclear reactor for which an applica-
tion is submitted under subparagraph (A)
of that paragraph.

(ii) **MINIMUM REQUIREMENTS.**—To
the maximum extent practicable, the Sec-
retary shall only certify a nuclear reactor
under clause (i) if—

(I) after considering the informa-
tion submitted under paragraph
(1)(A)(i), the Secretary determines
that the nuclear reactor is projected
to cease operations due to economic
factors; and

(II) after considering the esti-
mate submitted under paragraph
(1)(A)(ii), the Secretary determines
that pollutants would increase if the
nuclear reactor were to cease oper-
ations and be replaced with other
types of power generation.
(iii) **Priority.**—In determining whether to certify a nuclear reactor under clause (i), the Secretary shall give priority to a nuclear reactor that uses uranium that is produced, converted, enriched, and fabricated into fuel assemblies in the United States.

(B) **Notice.**—For each application received under paragraph (1)(A), the Secretary shall provide to the applicable owner or operator, as applicable—

(i) a notice of the certification of the applicable nuclear reactor; or

(ii) a notice that describes the reasons why the certification of the applicable nuclear reactor was denied.

(d) **Bidding Process.**—

(1) **In general.**—Subject to paragraph (2), the Secretary shall establish a deadline by which each certified nuclear reactor shall submit to the Secretary a sealed bid that—

(A) describes the price per megawatt-hour required to maintain operations of the certified nuclear reactor during the 4-year period for
which the certified nuclear reactor would receive credits; and

(B) includes a commitment, subject to the receipt of credits, to provide a specific number of megawatt-hours of generation during the 4-year period for which credits would be allocated.

(2) REQUIREMENT.—The deadline established under paragraph (1) shall be not later than 30 days after the first date on which the Secretary has made the determination described in paragraph (2)(A)(i) of subsection (e) with respect to each application submitted under paragraph (1)(A) of that subsection.

(e) ALLOCATION.—

(1) AUCTION.—Notwithstanding section 169 of the Atomic Energy Act of 1954 (42 U.S.C. 2209), the Secretary shall—

(A) in consultation with the heads of applicable Federal agencies, establish a process for evaluating bids submitted under subsection (d)(1) through an auction process; and

(B) select certified nuclear reactors to be allocated credits.

(2) CREDITS.—Subject to subsection (f)(2), on selection under paragraph (1), a certified nuclear re-
actor shall be allocated credits for a 4-year period beginning on the date of the selection.

(3) REQUIREMENT.—To the maximum extent practicable, the Secretary shall use the amounts made available for credits under this section to allocate credits to as many certified nuclear reactors as possible.

(f) RENEWAL.—

(1) IN GENERAL.—The owner or operator of a certified nuclear reactor may seek to recertify the nuclear reactor in accordance with this section.

(2) LIMITATION.—Notwithstanding any other provision of this section, the Secretary may not allocate any credits after September 30, 2031.

(g) ADDITIONAL REQUIREMENTS.—

(1) AUDIT.—During the 4-year period beginning on the date on which a certified nuclear reactor first receives a credit, the Secretary shall periodically audit the certified nuclear reactor.

(2) RECAPTURE.—The Secretary shall, by regulation, provide for the recapture of the allocation of any credit to a certified nuclear reactor that, during the period described in paragraph (1)—

(A) terminates operations; or
(B) does not operate at an annual loss in the absence of an allocation of credits to the certified nuclear reactor.

(3) CONFIDENTIALITY.—The Secretary shall establish procedures to ensure that any confidential, private, proprietary, or privileged information that is included in a sealed bid submitted under this section is not publicly disclosed or otherwise improperly used.

(h) REPORT.—Not later than January 1, 2024, the Comptroller General of the United States shall submit to Congress a report with respect to the credits allocated to certified nuclear reactors, which shall include—

(1) an evaluation of the effectiveness of the credits in avoiding air pollutants while ensuring grid reliability;

(2) a quantification of the ratepayer savings achieved under this section; and

(3) any recommendations to renew or expand the credits.

(i) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $1,200,000,000 for each of fiscal years 2022 through 2026.
**Subtitle D—Miscellaneous**

SEC. 3301. SOLAR ENERGY TECHNOLOGIES ON CURRENT AND FORMER MINE LAND.

Section 3004 of the Energy Act of 2020 (42 U.S.C. 16238) is amended—

(1) in subsection (a)—

(A) by redesignating paragraphs (6) through (15) as paragraphs (7) through (16), respectively; and

(B) by inserting after paragraph (5) the following:

“(6) MINE LAND.—The term ‘mine land’ means land subject to title V of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1251 et seq.).”; and

(2) in subsection (b)(6)(B)—

(A) in the matter preceding clause (i), by inserting “, in consultation with the Secretary of the Interior and the Administrator of the Environmental Protection Agency for purposes of clause (iv),” after “the Secretary”;

(B) in clause (iii), by striking “and” after the semicolon;

(C) by redesignating clause (iv) as clause (v); and
(D) by inserting after clause (iii) the following:

“(iv) a description of the technical and economic viability of siting solar energy technologies on current and former mine land, including necessary interconnection and transmission siting; and”.

SEC. 3302. CLEAN ENERGY DEMONSTRATION PROGRAM ON CURRENT AND FORMER MINE LAND.

(a) DEFINITIONS.—In this section:

(1) CLEAN ENERGY PROJECT.—The term “clean energy project” means a project that demonstrates 1 or more of the following technologies:

(A) Solar.

(B) Micro-grids.

(C) Geothermal.

(D) Direct air capture.

(E) Fossil-fueled electricity generation with carbon capture, utilization, and sequestration.

(F) Energy storage, including pumped storage hydropower and compressed air storage.

(G) Advanced nuclear technologies.

(2) ECONOMICALLY DISTRESSED AREA.—The term “economically distressed area” means an area described in section 301(a) of the Public Works and
233 Economic Development Act of 1965 (42 U.S.C. 3161(a)).

(3) MINE LAND.—The term “mine land” means land subject to title V of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1251 et seq.).

(4) PROGRAM.—The term “program” means the demonstration program established under subsection (b).

(b) ESTABLISHMENT.—The Secretary shall establish a program to demonstrate the technical and economic viability of carrying out clean energy projects on current and former mine land.

(e) SELECTION OF DEMONSTRATION PROJECTS.—

(1) IN GENERAL.—In carrying out the program, the Secretary shall select not more than 3 clean energy projects, to be carried out in geographically diverse regions.

(2) ELIGIBILITY.—To be eligible to be selected for participation in the program under paragraph (1), a clean energy project shall demonstrate, as determined by the Secretary, a technology on a current or former mine land site with a reasonable expectation of commercial viability.
(3) PRIORITY.—In selecting clean energy projects for participation in the program under paragraph (1), the Secretary shall prioritize clean energy projects that will—

(A) be carried out in a location where the greatest number of jobs can be created from the successful demonstration of the clean energy project;

(B) provide the greatest net impact in avoiding or reducing anthropogenic emissions of greenhouse gases;

(C) provide the greatest domestic job creation (both directly and indirectly) during the implementation of the clean energy project;

(D) provide the greatest job creation and economic development in the vicinity of the clean energy project, particularly—

(i) in economically distressed areas;

and

(ii) with respect to dislocated workers who were previously employed in manufacturing, coal power plants, or coal mining;

(E) have the greatest potential for technological innovation and commercial deployment;
(F) have the lowest levelized cost of generated or stored energy;

(G) have the lowest rate of greenhouse gas emissions per unit of electricity generated or stored; and

(H) have the shortest project time from permitting to completion.

(4) PROJECT SELECTION.—The Secretary shall solicit proposals for clean energy projects and select clean energy project finalists in consultation with the Secretary of the Interior, the Administrator of the Environmental Protection Agency, and the Secretary of Labor.

(d) CONSULTATION.—The Secretary shall consult with the Director of the Office of Surface Mining Reclamation and Enforcement and the Administrator of the Environmental Protection Agency, acting through the Office of Brownfields and Land Revitalization, to determine whether it is necessary to promulgate regulations or issue guidance in order to prioritize and expedite the siting of clean energy projects on current and former mine land sites.

(e) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance to project applicants selected for participation in the program under subsection (c) to
assess the needed interconnection, transmission, and other grid components and permitting and siting necessary to interconnect, on current and former mine land where the project will be sited, any generation or storage with the electric grid.

(f) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $100,000,000 for each of fiscal years 2022 through 2026.

SEC. 3303. STUDY AND REPORT ON HYPERLOOP TECHNOLOGIES.

(a) In General.—Not later than 1 year after the date of enactment of this Act, the Secretary shall conduct, and submit to Congress a report describing the results of, a study on the opportunities for, and barriers to, deploying hyperloop technologies in the United States.

(b) Inclusions.—The report submitted under subsection (a) shall include—

(1) a description of any current research and development activities carried out by the Department with respect to hyperloop technologies;

(2) recommendations for future research, development, and demonstration and funding needs to
support the utilization and scale-up of hyperloop technologies;

(3) identifications of sites that would be suitable for research, development, and demonstration projects relating to hyperloop technologies; and

(4) a description of the potential for job creation and workforce needs if hyperloop technologies were deployed.

SEC. 3304. HYDROPOWER.

In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under sections 242 and 243 of the Energy Policy Act of 2005 (42 U.S.C. 15881, 15882), out of any amounts in the Treasury not otherwise appropriated, $2,253,600,000 for the period of fiscal years 2022 through 2026.

TITLE IV—ENABLING ENERGY INFRASTRUCTURE INVESTMENT AND DATA COLLECTION

Subtitle A—Department of Energy Loan Program

SEC. 4001. DEPARTMENT OF ENERGY LOAN PROGRAMS.

(a) Title XVII Innovative Energy Loan Guarantee Program.—
(1) Reasonable prospect of repayment.—

Section 1702(d)(1) of the Energy Policy Act of 2005 (42 U.S.C. 16512(d)(1)) is amended—

(A) by striking the paragraph designation and heading and all that follows through “No guarantee” and inserting the following:

“(1) Requirement.—

“(A) In general.—No guarantee”; and

(B) by adding at the end the following:

“(B) Reasonable prospect of repayment.—The Secretary shall base a determination of whether there is reasonable prospect of repayment under subparagraph (A) on a comprehensive evaluation of whether the borrower has a reasonable prospect of repaying the guaranteed obligation for the eligible project, including an evaluation of—

“(i) the strength of the contractual terms of the eligible project (if commercially reasonably available); 

“(ii) the forecast of noncontractual cash flows supported by market projections from reputable sources, as determined by the Secretary;
“(iii) cash sweeps and other structure enhancements;

“(iv) the projected financial strength of the borrower—

“(I) at the time of loan close; and

“(II) throughout the loan term after the project is completed;

“(v) the financial strength of the investors and strategic partners of the borrower, if applicable; and

“(vi) other financial metrics and analyses that are relied on by the private lending community and nationally recognized credit rating agencies, as determined appropriate by the Secretary.”.

(2) Loan guarantees for projects that increase the domestic supply of critical minerals.—Section 1703(b) of the Energy Policy Act of 2005 (42 U.S.C. 16513(b)) is amended by adding at the end the following:

“(13) Projects that increase the domestic supply of critical minerals (as defined in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a)), including through the production, proc-
(b) ADVANCED TECHNOLOGY VEHICLE MANUFACTURING.—

(1) ELIGIBILITY.—Section 136(a)(1) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013(a)(1)) is amended—

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

(B) by redesignating subparagraphs (A) through (C) as clauses (i) through (iii), respectively, and indenting appropriately;

(C) in the matter preceding clause (i) (as so redesignated), by striking “means an ultra” and inserting the following: “means—

“(A) an ultra”; and

(D) by adding at the end the following:

“(B) a medium duty vehicle or a heavy duty vehicle that exceeds 125 percent of the greenhouse gas emissions and fuel efficiency standards established by the final rule of the Environmental Protection Agency entitled ‘Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty En-
gines and Vehicles—Phase 2’ (81 Fed. Reg. 73478 (October 25, 2016));
“(C) a train or locomotive;
“(D) marine transportation; and
“(E) hyperloop technology.”.

(2) REASONABLE PROSPECT OF REPAYMENT.—

Section 136(d) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013(d)) is amended—

(A) by striking paragraph (3) and inserting the following:

“(3) SELECTION OF ELIGIBLE PROJECTS.—

“(A) IN GENERAL.—The Secretary shall select eligible projects to receive loans under this subsection if the Secretary determines that—

“(i) the loan recipient—

“(I) has a reasonable prospect of repaying the principal and interest on the loan;

“(II) will provide sufficient information to the Secretary for the Secretary to ensure that the qualified investment is expended efficiently and effectively; and
“(III) has met such other criteria as may be established and published by the Secretary; and

“(ii) the amount of the loan (when combined with amounts available to the loan recipient from other sources) will be sufficient to carry out the project.

“(B) REASONABLE PROSPECT OF REPAYMENT.—The Secretary shall base a determination of whether there is a reasonable prospect of repayment of the principal and interest on a loan under subparagraph (A)(i)(I) on a comprehensive evaluation of whether the loan recipient has a reasonable prospect of repaying the principal and interest, including an evaluation of—

“(i) the strength of the contractual terms of the eligible project (if commercially reasonably available);

“(ii) the forecast of noncontractual cash flows supported by market projections from reputable sources, as determined by the Secretary;

“(iii) cash sweeps and other structure enhancements;
“(iv) the projected financial strength of the loan recipient—

“(I) at the time of loan close;

and

“(II) throughout the loan term after the project is completed;

“(v) the financial strength of the investors and strategic partners of the loan recipient, if applicable; and

“(vi) other financial metrics and analyses that are relied on by the private lending community and nationally recognized credit rating agencies, as determined appropriate by the Secretary.”; and

(B) in paragraph (4)—

(i) in subparagraph (C), by striking “and” after the semicolon;

(ii) in subparagraph (D), by striking the period at the end and inserting “; and”;

(iii) by adding at the end the following:

“(E) shall be subject to the condition that the loan is not subordinate to other financing.”.
(3) ADDITIONAL REFORMS.—Section 136 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013) is amended—

(A) in subsection (h)—

(i) in the subsection heading, by striking “AUTOMOBILE” and inserting “ADVANCED TECHNOLOGY VEHICLE”; and

(ii) in paragraph (1)(B), by striking “automobiles, or components of automobiles” and inserting “advanced technology vehicles, or components of advanced technology vehicles”; 

(B) by striking subsection (i);

(C) by redesignating subsection (j) as subsection (i); and

(D) by adding at the end the following:

“(j) COORDINATION.—In carrying out this section, the Secretary shall coordinate with relevant vehicle, bio-energy, and hydrogen and fuel cell demonstration project activities supported by the Department.

“(k) OUTREACH.—In carrying out this section, the Secretary shall—

“(1) provide assistance with the completion of applications for awards or loans under this section; and
“(2) conduct outreach, including through conferences and online programs, to disseminate information on awards and loans under this section to potential applicants.

“(l) REPORT.—Not later than 2 years after the date of enactment of this subsection, and every 3 years thereafter, the Secretary shall submit to Congress a report on the status of projects supported by a loan under this section, including—

“(1) a list of projects receiving a loan under this section, including the loan amount and construction status of each project;

“(2) the status of the loan repayment for each project, including future repayment projections;

“(3) data regarding the number of direct and indirect jobs retained, restored, or created by financed projects;

“(4) the number of new projects projected to receive a loan under this section in the next 2 years, including the projected aggregate loan amount over the next 2 years;

“(5) evaluation of ongoing compliance with the assurances and commitments, and of the predictions, made by applicants pursuant to paragraphs (2) and (3) of subsection (d);
“(6) the total number of applications received by the Department each year; and

“(7) any other metrics the Secretary determines appropriate.”.

Subtitle B—Energy Information Administration

SEC. 4101. DEFINITIONS.

In this subtitle:

(1) Administrator.—The term “Administrator” means the Administrator of the Energy Information Administration.


(3) Critical Mineral.—The term “critical mineral” has the meaning given the term in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a)).

(4) Household Energy Burden.—The term “household energy burden” means the quotient obtained by dividing—

(A) the residential energy expenditures (as defined in section 440.3 of title 10, Code of
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Federal Regulations (as in effect on the date of enactment of this Act)) of the applicable household; by

(B) the annual income of that household.

(5) **Household with a high energy burden.**—The term “household with a high energy burden” has the meaning given the term in section 440.3 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act).

(6) **Large manufacturing facility.**—The term “large manufacturing facility” means a manufacturing facility that—

(A) annually consumes more than 35,000 megawatt-hours of electricity; or

(B) has a peak power demand of more than 10 megawatts.

(7) **Load-serving entity.**—The term “load-serving entity” has the meaning given the term in section 217(a) of the Federal Power Act (16 U.S.C. 824q(a)).

(8) **Miscellaneous electric load.**—The term “miscellaneous electric load” means electricity that—

(A) is used by an appliance or device—

(i) within a building; or
(ii) to serve a building; and

(B) is not used for heating, ventilation, air conditioning, lighting, water heating, or refrigeration.

(9) **Regional Transmission Organization.**—

The term “Regional Transmission Organization” has the meaning given the term in section 3 of the Federal Power Act (16 U.S.C. 796).

(10) **Rural area.**—The term “rural area” means a city, town, or unincorporated area that has a population of not more than 10,000 inhabitants.

**SEC. 4102. DATA COLLECTION IN THE ELECTRICITY SECTOR.**

(a) **Dashboard.**—

(1) **Establishment.**—

(A) **In general.**—Not later than 90 days after the date of enactment of this Act, the Administrator shall establish an online database to track the operation of the bulk power system in the contiguous 48 States (referred to in this section as the “Dashboard”).

(B) **Improvement of existing dashboard.**—The Dashboard may be established through the improvement, in accordance with
this subsection, of an existing dashboard of the Energy Information Administration, such as—

(i) the U.S. Electric System Operating Data dashboard; or

(ii) the Hourly Electric Grid Monitor.

(2) Expansion.—

(A) In general.—Not later than 1 year after the date of enactment of this Act, the Administrator shall expand the Dashboard to include, to the maximum extent practicable, hourly operating data collected from the electricity balancing authorities that operate the bulk power system in all of the several States, each territory of the United States, and the District of Columbia.

(B) Types of data.—The hourly operating data collected under subparagraph (A) may include data relating to—

(i) total electricity demand;

(ii) electricity demand by subregion;

(iii) short-term electricity demand forecasts;

(iv) total electricity generation;

(v) net electricity generation by fuel type, including renewables;
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(vi) electricity stored and discharged;

(vii) total net electricity interchange;

(viii) electricity interchange with directly interconnected balancing authorities;

and

(ix) the estimated marginal greenhouse gas emissions per megawatt hour of electricity generated—

(I) within the metered boundaries of each balancing authority; and

(II) for each pricing node.

(b) Mix of Energy Sources.—

(1) In general.—Not later than 1 year after the date of enactment of this Act, the Administrator shall establish, in accordance with section 4109 and this subsection, a system to harmonize the operating data on electricity generation collected under subsection (a) with—

(A) measurements of greenhouse gas and other pollutant emissions collected by the Environmental Protection Agency;

(B) other data collected by the Environmental Protection Agency or other relevant Federal agencies, as the Administrator determines to be appropriate; and
(C) data collected by State or regional energy credit registries.

(2) Outcomes.—The system established under paragraph (1) shall result in an integrated dataset that includes, for any given time—

(A) the net generation of electricity by megawatt hour within the metered boundaries of each balancing authority; and

(B) the average and marginal greenhouse gas emissions by megawatt hour of electricity generated within the metered boundaries of each balancing authority.

(3) Real-time data dissemination.—To the maximum extent practicable, the system established under paragraph (1) shall disseminate data on a real-time basis.

(4) Complementary efforts.—The system established under paragraph (1) shall complement any existing data dissemination efforts of the Administrator that make use of electricity generation data, such as electricity demand by subregion and electricity interchange with directly interconnected balancing authorities.

(c) Observed characteristics of bulk power system resource integration.—
(1) **IN GENERAL.**—Not later than 1 year after the date of enactment of this Act, the Administrator shall establish a system to provide to the public timely data on the integration of energy resources into the bulk power system and the electric distribution grids in the United States, and the observed effects of that integration.

(2) **REQUIREMENTS.**—In carrying out paragraph (1), the Administrator shall seek to improve the temporal and spatial resolution of data relating to how grid operations are changing, such as through—

(A) thermal generator cycling to accommodate intermittent generation;

(B) generation unit self-scheduling practices;

(C) renewable source curtailment;

(D) utility-scale storage;

(E) load response;

(F) aggregations of distributed energy resources at the distribution system level;

(G) power interchange between directly connected balancing authorities;

(H) expanding Regional Transmission Organization balancing authorities;
(I) improvements in real-time—
   (i) accuracy of locational marginal prices; and
   (ii) signals to flexible demand; and
   (J) disruptions to grid operations, including disruptions caused by cyber sources, physical sources, extreme weather events, or other sources.

(d) Distribution System Operations.—

   (1) In general.—Not later than 1 year after the date of enactment of this Act, the Administrator shall establish a system to provide to the public timely data on the operations of load-serving entities in the electricity grids of the United States.

   (2) Requirements.—

      (A) In general.—In carrying out paragraph (1), the Administrator shall—

         (i) not less frequently than annually, provide data on—

         (I) the delivered generation resource mix for each load-serving entity; and

         (II) the distributed energy resources operating within each service area of a load-serving entity;
(ii) harmonize the data on delivered generation resource mix described in clause (i)(I) with measurements of greenhouse gas emissions collected by the Environmental Protection Agency;

(iii) to the maximum extent practicable, disseminate the data described in clause (i)(I) and the harmonized data described in clause (ii) on a real-time basis; and

(iv) provide historical data, beginning with the earliest calendar year practicable, but not later than calendar year 2020, on the delivered generation resource mix described in clause (i)(I).

(B) DATA ON THE DELIVERED GENERATION RESOURCE MIX.—In collecting the data described in subparagraph (A)(i)(I), the Administrator shall—

(i) use existing voluntary industry methodologies, including reporting protocols and databases that provide consistent, timely, and accessible carbon emissions intensity rates for delivered electricity;
(ii) consider that generation and transmission entities may provide data on behalf of load-serving entities;

(iii) to the extent that the Administrator determines necessary, require each load-serving entity to submit additional information as needed to determine the delivered generation resource mix of the load-serving entity, including financial or contractual agreements for power and generation resource type attributes with respect to power owned by or retired by the load-serving entity; and

(iv) for any portion of the generation resource mix of a load-serving entity that is otherwise unaccounted for, develop a methodology to assign to the load-serving entity a share of the otherwise unaccounted for resource mix of the relevant balancing authority.

(3) CITY-LEVEL DATA.—Not later than 1 year after the date of enactment of this Act, the Administrator shall develop a plan for the collection or estimation of data on the electricity consumption within the city limits of cities in the United States.
SEC. 4103. EXPANSION OF ENERGY CONSUMPTION SURVEYS.

(a) In General.—Not later than 2 years after the date of enactment of this Act, the Administrator shall implement measures to expand the Manufacturing Energy Consumption Survey, the Commercial Building Energy Consumption Survey, and the Residential Energy Consumption Survey to include data on energy end use in order to facilitate the identification of—

(1) opportunities to improve energy efficiency and energy productivity;

(2) changing patterns of energy use; and

(3) opportunities to better understand and manage miscellaneous electric loads.

(b) Requirements.—

(1) In General.—In carrying out subsection (a), the Administrator shall—

(A) increase the scope and frequency of data collection on energy end uses and services;

(B) use new data collection methods and tools in order to obtain more comprehensive data and reduce the burden on survey respondents, including by—

(i) accessing other existing data sources; and
(ii) if feasible, developing online and real-time reporting systems;

(C) identify and report community-level economic and environmental impacts, including with respect to—

(i) the reliability and security of the energy supply; and

(ii) local areas with households with a high energy burden; and

(D) improve the presentation of data, including by—

(i) enabling the presentation of data in an interactive cartographic format on a national, regional, State, and local level with the functionality of viewing various economic, energy, and demographic measures on an individual basis or in combination; and

(ii) incorporating the results of the data collection, methods, and tools described in subparagraphs (A) and (B) into existing and new digital distribution methods.
(2) **MANUFACTURING ENERGY CONSUMPTION SURVEY.**—With respect to the Manufacturing Energy Consumption Survey, the Administrator shall—

(A) implement measures to provide more detailed representations of data by region;

(B) for large manufacturing facilities, break out process heat use by required process temperatures in order to facilitate the identification of opportunities for cost reductions and energy efficiency or energy productivity improvements;

(C) collect information on—

(i) energy source-switching capabilities, especially with respect to thermal processes and the efficiency of thermal processes;

(ii) the use of electricity, biofuels, hydrogen, or other alternative fuels to produce process heat; and

(iii) the use of demand response; and

(D) identify current and potential future industrial clusters in which multiple firms and facilities in a defined geographic area share the costs and benefits of infrastructure for clean manufacturing, such as—
(i) hydrogen generation, production, transport, use, and storage infrastructure; and
(ii) carbon dioxide capture, transport, use, and storage infrastructure.

(3) Residential energy consumption survey.—With respect to the Residential Energy Consumption Survey, the Administrator shall—

(A) implement measures to provide more detailed representations of data by—

(i) geographic area, including by State (for each State);
(ii) building type, including multi-family buildings;
(iii) household income;
(iv) location in a rural area; and
(v) other demographic characteristics, as determined by the Administrator; and

(B) report measures of—

(i) household electrical service capacity;
(ii) access to utility demand-side management programs and bill credits;
(iii) the affordability of energy; and
(iv) the household energy burden for households—

(I) in different geographic areas;

(II) by electricity, heating, and other end-uses; and

(III) with different demographic characteristics that correlate with increased household energy burden, including—

(aa) having a low household income;

(bb) being a minority household;

(ee) residing in manufactured or multifamily housing;

(dd) residing in rental housing; and

(ee) other factors, as determined by the Administrator.

SEC. 4104. DATA COLLECTION ON ELECTRIC VEHICLE INTEGRATION WITH THE ELECTRICITY GRIDS.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Administrator shall develop and implement measures to expand data collection
with respect to bi-directional electric vehicle integration with the electricity grids.

(b) Sources of Data.—The sources of the data collected pursuant to subsection (a) may include—

(1) host-owned or charging-network-owned electric vehicle charging stations;

(2) aggregators of charging-network electricity demand;

(3) electric utilities offering managed-charging programs;

(4) electric utility coalitions;

(5) individual, corporate, or public owners of electric vehicles; and

(6) balancing authority analyses of—

(A) transformer loading congestion; and

(B) distribution-system congestion.

(c) Consultation and Coordination.—In carrying out subsection (a), the Administrator may consult and enter into agreements with other institutions having relevant data and data collection capabilities, such as—

(1) the Secretary of Transportation;

(2) the Secretary;

(3) the Administrator of the Environmental Protection Agency;

(4) States or State agencies; and
(5) private entities.

SEC. 4105. PLAN FOR THE FORECASTING OF DEMAND FOR MINERALS USED IN THE ENERGY SECTOR.

(a) In General.—Not later than 180 days after the date of enactment of this Act, the Administrator shall develop a plan for the forecasting of demand for energy equipment, including equipment for energy production or storage purposes, that uses minerals, such as lithium and cobalt, that are or potentially may be determined to be critical minerals, including—

(1) existing markets for manufactured energy-producing and energy-storing equipment; and

(2) emerging or potential markets for new energy-producing and energy-storing technologies entering commercialization.

(b) Metrics.—The plan developed under subsection (a) shall produce forecasts of equipment demand—

(1) over the 1-year, 5-year, and 10-year periods beginning on the date on which development of the plan is completed;

(2) by particular economic sectors; and

(3) according to any other parameters that the Administrator, in collaboration with the Secretary of the Interior, acting through the Director of the
United States Geological Survey, determines are needed for the Annual Critical Minerals Outlook.

(c) COLLABORATION.—In carrying out subsection (a), the Administrator shall work with—

(1) the Secretary with respect to the possible trajectories of emerging energy-producing and energy-storing technologies; and

(2) the Secretary of the Interior, acting through the Director of the United States Geological Survey, with respect to the parameters and assessments needed for the Annual Critical Minerals Outlook.

SEC. 4106. EXPANSION OF INTERNATIONAL ENERGY DATA.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Administrator shall implement measures to expand and improve the international energy data resources of the Energy Information Administration in order to understand—

(1) the production and use of energy in various countries;

(2) changing patterns of energy use internationally;

(3) the relative costs and environmental impacts of energy production and use internationally; and

(4) plans for or construction of major energy facilities or infrastructure.
(b) REQUIREMENTS.—In carrying out subsection (a), the Administrator shall—

(1) work with, and leverage the data resources of, the International Energy Agency;

(2) include detail on energy consumption by fuel, economic sector, and end use within countries for which data are available;

(3) collect relevant measures of energy use, including—

(A) cost; and

(B) emissions intensity; and

(4) provide tools that allow for straightforward country-to-country comparisons of energy production and consumption across economic sectors and end uses.

SEC. 4107. PLAN FOR THE NATIONAL ENERGY MODELING SYSTEM.

Not later than 180 days after the date of enactment of this Act, the Administrator shall develop a plan to identify any need or opportunity to update or further the capabilities of the National Energy Modeling System, including with respect to—

(1) treating energy demand endogenously;

(2) increased natural gas usage and increased market penetration of renewable energy;
(3) flexible operating modes of nuclear power plants, such as load following and frequency control;

(4) tools to model multiple-output energy systems that provide hydrogen, high-value heat, electricity, and chemical synthesis services, including interactions of those energy systems with the electricity grids, pipeline networks, and the broader economy;

(5) demand response and improved representation of energy storage, including long-duration storage, in capacity expansion models;

(6) electrification, particularly with respect to the transportation, industrial, and buildings sectors;

(7) increasing model resolution to represent all hours of the year and all electricity generators;

(8) wholesale electricity market design and the appropriate valuation of all services that support the reliability of electricity grids, such as—

(A) battery storage; and

(B) synthetic inertia from grid-tied inverters;

(9) economic modeling of the role of energy efficiency, demand response, electricity storage, and a variety of distributed generation technologies;
(10) the production, transport, use, and storage of carbon dioxide, hydrogen, and hydrogen carriers;

(11) greater flexibility in—

(A) the modeling of the environmental impacts of electricity systems, such as—

(i) emissions of greenhouse gases and other pollutants; and

(ii) the use of land and water resources; and

(B) the ability to support climate modeling, such as the climate modeling performed by the Office of Biological and Environmental Research in the Office of Science of the Department;

(12) technologies that are in an early stage of commercial deployment and have been identified by the Secretary as candidates for large-scale demonstration projects, such as—

(A) carbon capture, transport, use, and storage from any source or economic sector;

(B) direct air capture;

(C) hydrogen production, including via electrolysis;

(D) synthetic and biogenic hydrocarbon liquid and gaseous fuels;
(E) supercritical carbon dioxide combustion turbines;

(F) industrial fuel cell and hydrogen combustion equipment; and

(G) industrial electric boilers;

(13) increased and improved data sources and tools, including—

(A) the establishment of technology and cost baselines, including technology learning rates;

(B) economic, employment, and health impacts of energy system policies on households, as a function of household income and region; and

(C) the use of behavioral economics to inform demand modeling in all sectors; and

(14) striving to migrate toward a single, consistent, and open-source modeling platform, and increasing open access to model systems, data, and outcomes, for—

(A) disseminating reference scenarios that can be transparently and broadly replicated; and

(B) promoting the development of the researcher and analyst workforce needed to con-
continue the development and validation of improved energy system models in the future.

SEC. 4108. REPORT ON COSTS OF CARBON ABATEMENT IN THE ELECTRICITY SECTOR.

Not later than 270 days after the date of enactment of this Act, the Administrator shall submit to Congress a report on—

(1) the potential use of levelized cost of carbon abatement (referred to in this section as “LCCA”) or a similar metric in analyzing generators of electricity;

(2) the feasibility and impact of incorporating LCCA in long-term forecasts—

(A) to compare technical approaches and understand real-time changes in fossil-fuel and nuclear dispatch;

(B) to compare the costs of technology options to reduce emissions; and

(C) to compare the costs of policy options, including current policies, regarding valid and verifiable reductions and removals of carbon; and

(3)(A) a potential process to measure carbon dioxide emissions intensity per unit of output production for a range of—
(i) energy sources;
(ii) sectors; and
(iii) geographic regions; and

(B) a corresponding process to provide an empirical framework for reporting the status and costs of carbon dioxide reduction relative to specified goals.

SEC. 4109. HARMONIZATION OF EFFORTS AND DATA.
Not later than 1 year after the date of enactment of this Act, the Administrator shall establish a system to harmonize, to the maximum extent practicable—

(1) the data collection efforts of the Administrator, including any data collection required under this subtitle, with the data collection efforts of—

(A) the Environmental Protection Agency;

(B) other relevant Federal agencies, as the Administrator determines to be appropriate; and

(C) State or regional energy credit registries, as the Administrator determines to be appropriate;

(2) the data collected under this subtitle, including the operating data on electricity generation collected under section 4102(a), with data collected by the entities described in subparagraphs (A)
through (C) of paragraph (1), including any measurements of greenhouse gas and other pollutant emissions collected by the Environmental Protection Agency; and

(3) the efforts of the Administrator to identify and report relevant impacts, opportunities, and patterns with respect to energy use, including the identification of community-level economic and environmental impacts required under section 4103(b)(1)(C), with the efforts of the Environmental Protection Agency and other relevant Federal agencies, as determined by the Administrator, to identify similar impacts, opportunities, and patterns.

**Subtitle C—Miscellaneous**

**SEC. 4201. CONSIDERATION OF MEASURES TO PROMOTE GREATER ELECTRIFICATION OF THE TRANSPORTATION SECTOR.**

(a) **In General.**—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) (as amended by section 1004(a)(1)) is amended by adding at the end the following:

“"(21) **Electric Vehicle Charging Programs.**—Each State shall consider measures to promote greater electrification of the transportation sector, including the establishment of rates that—"
“(A) promote affordable and equitable electric vehicle charging options for both residential and public electric vehicle charging infrastructure;

“(B) facilitate reduced charging times for light-, medium-, and heavy-duty vehicles to improve customer experiences;

“(C) accelerate third-party investment in public electric vehicle charging stations in order to reduce greenhouse gas emissions in the light-, medium-, and heavy-duty vehicle sectors; and

“(D) appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.”.

(b) COMPLIANCE.—

(1) Time limitation.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) (as amended by section 1004(a)(2)(A)) is amended by adding at the end the following:

“(8)(A) Not later than 1 year after the date of enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which the State has ratemaking authority) and each nonregulated utility shall commence consideration
under section 111, or set a hearing date for consid-
eration, with respect to the standard established by
paragraph (21) of section 111(d).

“(B) Not later than 2 years after the date of
enactment of this paragraph, each State regulatory
authority (with respect to each electric utility for
which the State has ratemaking authority), and each
nonregulated electric utility shall complete the con-
sideration and make the determination under section
111 with respect to the standard established by
paragraph (21) of section 111(d).”.

(2) FAILURE TO COMPLY.—Section 112(c) of
the Public Utility Regulatory Policies Act of 1978
(16 U.S.C. 2622(c)) (as amended by section
1004(a)(2)(B)(i)) is amended by adding at the end
the following: “In the case of the standard estab-
lished by paragraph (21) of section 111(d), the ref-
ference contained in this subsection to the date of en-
actment of this Act shall be deemed to be a ref-
ference to the date of enactment of that paragraph
(21).”.

(3) PRIOR STATE ACTIONS.—

(A) IN GENERAL.—Section 112 of the
Public Utility Regulatory Policies Act of 1978
(16 U.S.C. 2622) (as amended by section
1004(a)(2)(C)(i)) is amended by adding at the end the following:

“(h) OTHER PRIOR STATE ACTIONS.—Subsections (b) and (c) shall not apply to the standard established by paragraph (21) of section 111(d) in the case of any electric utility in a State if, before the date of enactment of this subsection—

“(1) the State has implemented for the electric utility the standard (or a comparable standard);

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

“(3) the State legislature has voted on the implementation of the standard (or a comparable standard) for the electric utility during the 3-year period ending on that date of enactment.”.

(B) CROSS-REFERENCE.—Section 124 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2634) (as amended by section 1004(a)(2)(C)(ii)(II)) is amended by adding at the end the following: “In the case of the standard established by paragraph (21) of section 111(d), the reference contained in this section
to the date of enactment of this Act shall be

demed to be a reference to the date of enact-
ment of that paragraph (21).”.

TITLE V—ENERGY EFFICIENCY
AND BUILDING INFRASTRUCTURE
Subtitle A—Residential and
Commercial Energy Efficiency

SEC. 5001. DEFINITIONS.

In this subtitle:

(1) PRIORITY STATE.—The term “priority
State” means a State that—

(A) is eligible for funding under the State
Energy Program; and

(B)(i) is among the 15 States with the
highest annual per-capita combined residential
and commercial sector energy consumption, as
most recently reported by the Energy Informa-
tion Administration; or

(ii) is among the 15 States with the high-
est annual per-capita energy-related carbon di-
oxide emissions by State, as most recently re-
ported by the Energy Information Administra-
tion.
(2) PROGRAM.—The term “program” means the program established under section 5002(a).

(3) STATE.—The term “State” means a State (as defined in section 3 of the Energy Policy and Conservation Act (42 U.S.C. 6202)), acting through a State energy office.


SEC. 5002. ENERGY EFFICIENCY REVOLVING LOAN FUND CAPITALIZATION GRANT PROGRAM.

(a) In General.—Not later than 1 year after the date of enactment of this Act, under the State Energy Program, the Secretary shall establish a program under which the Secretary shall provide capitalization grants to States to establish a revolving loan fund under which the State shall provide loans and grants, as applicable, in accordance with this section.

(b) DISTRIBUTION OF FUNDS.—

(1) ALL STATES.—

(A) In General.—Of the amounts made available under subsection (j), the Secretary shall use 40 percent to provide capitalization
grants to States that are eligible for funding under the State Energy Program, in accordance with the allocation formula established under section 420.11 of title 10, Code of Federal Regulations (or successor regulations).

(B) REMAINING FUNDING.—After applying the allocation formula described in subparagraph (A), the Secretary shall redistribute any unclaimed funds to the remaining States seeking capitalization grants under that subparagraph.

(2) PRIORITY STATES.—

(A) IN GENERAL.—Of the amounts made available under subsection (j), the Secretary shall use 60 percent to provide supplemental capitalization grants to priority States in accordance with an allocation formula determined by the Secretary.

(B) REMAINING FUNDING.—After applying the allocation formula described in subparagraph (A), the Secretary shall redistribute any unclaimed funds to the remaining priority States seeking supplemental capitalization grants under that subparagraph.

(C) GRANT AMOUNT.—
(i) **MAXIMUM AMOUNT.**—The amount of a supplemental capitalization grant provided to a State under this paragraph shall not exceed $15,000,000.

(ii) **SUPPLEMENT NOT SUPPLANT.**—A supplemental capitalization grant received by a State under this paragraph shall supplement, not supplant, a capitalization grant received by that State under paragraph (1).

(c) **APPLICATIONS FOR CAPITALIZATION GRANTS.**—A State seeking a capitalization grant under the program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including—

(1) a detailed explanation of how the grant will be used, including a plan to establish a new revolving loan fund or use an existing revolving loan fund;

(2) the need of eligible recipients for loans and grants in the State for assistance with conducting energy audits;

(3) a description of the expected benefits that building infrastructure and energy system upgrades and retrofits will have on communities in the State; and
(4) in the case of a priority State seeking a supplemental capitalization grant under subsection (b)(2), a justification for needing the supplemental funding.

(d) TIMING.—

(1) IN GENERAL.—The Secretary shall establish a timeline with dates by, or periods by the end of, which a State shall—

(A) on receipt of a capitalization grant under the program, deposit the grant funds into a revolving loan fund; and

(B) begin using the capitalization grant as described in subsection (e)(1).

(2) USE OF GRANT.—Under the timeline established under paragraph (1), a State shall be required to begin using a capitalization grant not more than 180 days after the date on which the grant is received.

(e) USE OF GRANT FUNDS.—

(1) IN GENERAL.—A State that receives a capitalization grant under the program—

(A) shall provide loans in accordance with paragraph (2); and

(B) may provide grants in accordance with paragraph (3).
(2) Loans.—

(A) Commercial Energy Audit.—

(i) In General.—A State that receives a capitalization grant under the program may provide a loan to an eligible recipient described in clause (iii) to conduct a commercial energy audit.

(ii) Audit Requirements.—A commercial energy audit conducted using a loan provided under clause (i) shall—

(I) determine the overall consumption of energy of the facility of the eligible recipient;

(II) identify and recommend lifecycle cost-effective opportunities to reduce the energy consumption of the facility of the eligible recipient, including through energy efficient—

(aa) lighting;

(bb) heating, ventilation, and air conditioning systems;

(cc) windows;

(dd) appliances; and

(ee) insulation and building envelopes;
(III) estimate the energy and cost savings potential of the opportunities identified in subclause (II) using software approved by the Secretary;

(IV) identify—

(aa) the period and level of peak energy demand for each building within the facility of the eligible recipient; and

(bb) the sources of energy consumption that are contributing the most to that period of peak energy demand;

(V) recommend controls and management systems to reduce or redistribute peak energy consumption; and

(VI) estimate the total energy and cost savings potential for the facility of the eligible recipient if all recommended upgrades and retrofits are implemented, using software approved by the Secretary.
(iii) ADDITIONAL AUDIT INCLUSIONS.—A commercial energy audit conducted using a loan provided under clause (i) may recommend strategies to increase energy efficiency of the facility of the eligible recipient through use of electric systems or other high-efficiency systems utilizing fuels, such as natural gas and hydrogen.

(iv) ELIGIBLE RECIPIENTS.—An eligible recipient under clause (i) is a business that—

(I) conducts the majority of its business in the State that provides the loan under that clause; and

(II) owns or operates—

(aa) 1 or more commercial buildings; or

(bb) commercial space within a building that serves multiple functions, such as a building for commercial and residential operations.

(B) RESIDENTIAL ENERGY AUDITS.—
(i) IN GENERAL.—A State that receives a capitalization grant under the program may provide a loan to an eligible recipient described in clause (iii) to conduct a residential energy audit.

(ii) RESIDENTIAL ENERGY AUDIT REQUIREMENTS.—A residential energy audit conducted using a loan under clause (i) shall—

(I) utilize the same evaluation criteria as the Home Performance Assessment used in the Energy Star program established under section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a);

(II) recommend lifecycle cost-effective opportunities to reduce energy consumption within the residential building of the eligible recipient, including through energy efficient—

(aa) lighting;

(bb) heating, ventilation, and air conditioning systems;

(cc) windows;

(dd) appliances; and
(ee) insulation and building envelopes;

(III) recommend controls and management systems to reduce or redistribute peak energy consumption;

(IV) compare the energy consumption of the residential building of the eligible recipient to comparable residential buildings in the same geographic area; and

(V) provide a Home Energy Score, or equivalent score, for the residential building of the eligible recipient by using the Home Energy Score Tool of the Department or an equivalent scoring tool.

(iii) ADDITIONAL AUDIT INCLUSIONS.—A residential energy audit conducted using a loan provided under clause (i) may recommend strategies to increase energy efficiency of the facility of the eligible recipient through use of electric systems or other high-efficiency systems utilizing fuels like, but not limited to, natural gas and hydrogen.
(iv) **Eligible Recipients.**—An eligible recipient under clause (i) is—

(I) an individual who owns—

(aa) a single family home;

(bb) a condominium or duplex; or

(ee) a manufactured housing unit; or

(II) a business that owns or operates a multifamily housing facility.

(C) **Commercial and Residential Energy Upgrades and Retrofits.**—

(i) **In General.**—A State that receives a capitalization grant under the program may provide a loan to an eligible recipient described in clause (ii) to carry out upgrades or retrofits of building infrastructure and systems that—

(I) are recommended in the commercial energy audit or residential energy audit, as applicable, completed for the building or facility of the eligible recipient;

(II) satisfy at least 1 of the criteria in the Home Performance As-
assessment used in the Energy Star program established under section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a);

(III) improve, with respect to the building or facility of the eligible recipient—

(aa) the physical comfort of the building or facility occupants;

(bb) the energy efficiency of the building or facility; or

(cc) the quality of the air in the building or facility; and

(IV)(aa) are lifecycle cost-effective; and

(bb)(AA) reduce the energy intensity of the building or facility of the eligible recipient; or

(BB) improve the control and management of energy usage of the building or facility to reduce demand during peak times.

(ii) ELIGIBLE RECIPIENTS.—An eligible recipient under clause (i) is an eligible
recipient described in subparagraph (A)(iii) or (B)(iii) that—

(I) has completed a commercial energy audit described in subparagraph (A) or a residential energy audit described in subparagraph (B) using a loan provided under the applicable subparagraph; or

(II) has completed a commercial energy audit or residential energy audit that—

(aa) was not funded by a loan under this paragraph; and

(bb)(AA) meets the requirements for the applicable audit under subparagraph (A) or (B), as applicable; or

(BB) the Secretary determines is otherwise satisfactory.

(iii) **LOAN TERM.**—A loan provided under this subparagraph shall be required to be fully amortized by the earlier of—

(I) the year in which the upgrades or retrofits carried out using
the loan exceed their expected useful life; and

(II) 15 years after those upgrades or retrofits are installed.

(D) REFERRAL TO QUALIFIED CONTRACTORS.—Following the completion of an audit under subparagraph (A) or (B) by an eligible recipient of a loan under the applicable subparagraph, the State may refer the eligible recipient to a qualified contractor, as determined by the State, to estimate—

(i) the upfront capital cost of each recommended upgrade; and

(ii) the total upfront capital cost of implementing all recommended upgrades.

(E) LOAN RECIPIENTS.—Each State providing loans under this paragraph shall, to the maximum extent practicable, provide loans to eligible recipients that do not have access to private capital.

(3) GRANTS AND TECHNICAL ASSISTANCE.—

(A) IN GENERAL.—A State that receives a capitalization grant under the program may use not more than 25 percent of the grant funds to provide grants or technical assistance to eligible
entities described in subparagraph (B) to carry out the activities described in subparagraphs (A), (B), and (C) of paragraph (2).

(B) ELIGIBLE ENTITY.—An entity eligible for a grant or technical assistance under subparagraph (A) is—

(i) a business that—

(I) is an eligible recipient described in paragraph (2)(A)(iii); and

(II) has fewer than 500 employees; or

(ii) a low-income individual (as defined in section 3 of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102)) that owns a residential building.

(4) ADMINISTRATIVE EXPENSES.—A State that receives a capitalization grant under the program may use not more than 10 percent of the grant funds for administrative expenses.

(f) COORDINATION WITH EXISTING PROGRAMS.—A State receiving a capitalization grant under the program is encouraged to utilize and build on existing programs and infrastructure within the State that may aid the State in carrying out a revolving loan fund program.
(g) LEVERAGING PRIVATE CAPITAL.—A State receiving a capitalization grant under the program shall, to the maximum extent practicable, use the grant to leverage private capital.

(h) OUTREACH.—The Secretary shall engage in outreach to inform States of the availability of capitalization grants under the program.

(i) REPORT.—Each State that receives a capitalization grant under the program shall, not later than 1 year after a grant is received, submit to the Secretary a report that describes—

1. the number of recipients to which the State has distributed—
   1. (A) loans for—
      1. (i) commercial energy audits under subsection (e)(2)(A);
      2. (ii) residential energy audits under subsection (e)(2)(B);
      3. (iii) energy upgrades and retrofits under subsection (e)(2)(C); and
   2. (B) grants under subsection (e)(3); and
   2. (2) the average capital cost of upgrades and retrofits across all commercial energy audits and residential energy audits that were conducted in the
State using loans provided by the State under subsection (e).

(j) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $250,000,000 for fiscal year 2022, to remain available until expended.

SEC. 5003. ENERGY AUDITOR TRAINING GRANT PROGRAM.

(a) DEFINITIONS.—In this section:

(1) COVERED CERTIFICATION.—The term “covered certification” means any of the following certifications:


(B) The Association of Energy Engineers Certified Energy Auditor certification.

(C) The Building Performance Institute Home Energy Professional Energy Auditor certification.


(E) Any other third-party certification recognized by the Department.
(F) Any third-party certification that the Secretary determines is equivalent to the certifications described in subparagraphs (A) through (E).

(2) ELIGIBLE STATE.—The term “eligible State” means a State that—

(A) has a demonstrated need for assistance for training energy auditors; and

(B) meets any additional criteria determined necessary by the Secretary.

(b) ESTABLISHMENT.—Under the State Energy Program, the Secretary shall establish a competitive grant program under which the Secretary shall award grants to eligible States to train individuals to conduct energy audits or surveys of commercial and residential buildings.

(c) APPLICATIONS.—

(1) IN GENERAL.—A State seeking a grant under subsection (b) shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including the energy auditor training program plan described in paragraph (2).

(2) ENERGY AUDITOR TRAINING PROGRAM PLAN.—An energy auditor training program plan
submitted with an application under paragraph (1) shall include—

(A)(i) a proposed training curriculum for energy audit trainees; and

(ii) an identification of the covered certification that those trainees will receive on completion of that training curriculum;

(B) the expected per-individual cost of training;

(C) a plan for connecting trainees with employment opportunities; and

(D) any additional information required by the Secretary.

(d) AMOUNT OF GRANT.—The amount of a grant awarded to an eligible State under subsection (b)—

(1) shall be determined by the Secretary, taking into account the population of the eligible State; and

(2) shall not exceed $2,000,000 for any eligible State.

(e) USE OF FUNDS.—

(1) IN GENERAL.—An eligible State that receives a grant under subsection (b) shall use the grant funds—
(A) to cover any cost associated with individuals being trained or certified to conduct energy audits by—

(i) the State; or

(ii) a State-certified third party training program; and

(B) subject to paragraph (2), to pay the wages of a trainee during the period in which the trainee receives training and certification.

(2) LIMITATION.—Not more than 10 percent of grant funds provided under subsection (b) to an eligible State may be used for the purpose described in paragraph (1)(B).

(f) CONSULTATION.—In carrying out this section, the Secretary shall consult with the Secretary of Labor.

(g) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $8,000,000 for each of fiscal years 2022 through 2026.
Subtitle B—Buildings

SEC. 5101. COST-EFFECTIVE CODES IMPLEMENTATION FOR EFFICIENCY AND RESILIENCE.

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

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

“(a) DEFINITIONS.—In this section:

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

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

“(B) a partnership.

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

“(A) Local building code agencies.

“(B) Codes and standards developers.

“(C) Associations of builders and design and construction professionals.
“(D) Local and utility energy efficiency programs.

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

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

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

“(b) ESTABLISHMENT.—

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

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

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

“(1) consider—

“(A) prospective energy savings and plans to measure the savings;
“(B) the long-term sustainability of those measures and savings;

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

“(i) resilience and peak load reduction;

“(ii) occupant safety and health; and

“(iii) environmental performance;

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

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

“(2) give priority to applications from partnerships.

“(d) ELIGIBLE ACTIVITIES.—

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

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

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

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

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

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

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

“(E) to implement updates in energy codes for——

“(i) new residential and commercial buildings (including multifamily buildings); and

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

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

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

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

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

“(D) the economic impacts of energy codes.

“(e) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $45,000,000 for each of fiscal years 2022 through 2026.”.

(b) Conforming Amendment.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended, in the matter preceding paragraph (1), by striking “As used in” and inserting “Except as otherwise provided, in”.

SEC. 5102. BUILDING, TRAINING, AND ASSESSMENT CENTERS.

(a) In General.—The Secretary shall provide grants to institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20
to establish building training and assessment centers—

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

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

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

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

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

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

(b) COORDINATION AND NONDUPLICATION.—

(1) IN GENERAL.—The Secretary shall coordinate the program with the industrial research and assessment centers program under section 457 of the Energy Independence and Security Act of 2007 (as added by section 5201(b)) and with other Federal programs to avoid duplication of effort.

(2) COLLOCATION.—To the maximum extent practicable, building, training, and assessment centers established under this section shall be collocated with industrial assessment centers (as defined in section 5211).

(c) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $10,000,000 for fiscal year 2022, to remain available until expended.

SEC. 5103. CAREER SKILLS TRAINING.

(a) DEFINITION OF ELIGIBLE ENTITY.—In this section, the term “eligible entity” means a nonprofit partnership that—

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

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

(3) demonstrates—

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

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

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

(b) ESTABLISHMENT.—The Secretary shall award grants to eligible entities to pay the Federal share of associated career skills training programs under which students concurrently receive classroom instruction and on-the-job training for the purpose of obtaining an industry-
related certification to install energy efficient buildings technologies.

(c) FEDERAL SHARE.—The Federal share of the cost of carrying out a career skills training program described in subsection (b) shall be 50 percent.

(d) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $10,000,000 for fiscal year 2022, to remain available until expended.

SEC. 5104. COMMERCIAL BUILDING ENERGY CONSUMPTION INFORMATION SHARING.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term “Administrator” means the Administrator of the Energy Information Administration.

(2) AGREEMENT.—The term “Agreement” means the agreement entered into under subsection (b).

(3) SURVEY.—The term “Survey” means the Commercial Building Energy Consumption Survey.

(b) AUTHORIZATION OF AGREEMENT.—Not later than 120 days after the date of enactment of this Act, the Administrator and the Administrator of the Environmental Protection Agency shall sign, and submit to Con-
gress, an information sharing agreement relating to commercial building energy consumption data.

(c) CONTENT OF AGREEMENT.—The Agreement shall—

(1) provide that—

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

(B) the Administrator of the Environmental Protection Agency shall have access to unmasked, raw building-specific data collected by the Survey;

(2) describe the manner in which the Administrator shall incorporate appropriate data (including the data described in subsection (d)) into any Survey published for the 2018 Survey cycle and each subsequent cycle for the purpose of analyzing and estimating building population, size, location, activity, energy usage, and any other relevant building characteristic;

(3) describe and compare—

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

(B) consistencies and variations in data for the same buildings captured in—

(i)(I) the 2018 Survey cycle; and

(II) each subsequent Survey cycle;

and

(ii) the Portfolio Manager database of the Environmental Protection Agency;

(4) consider whether, and the methods by which, the Administrator may collect and publish new iterations of Survey data every 3 years—

(A) using the Survey processes of the Administrator; or

(B) as supplemented by information in the Portfolio Manager database of the Environmental Protection Agency.

(d) DATA.—The data referred in subsection (c)(2) in-
is collected through the Portfolio Manager database of the Environmental Protection Agency;

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

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

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

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

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

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

Subtitle C—Industrial Energy Efficiency

PART I—INDUSTRY

SEC. 5201. FUTURE OF INDUSTRY PROGRAM AND INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.

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

(A) by striking the section heading and inserting the following: “FUTURE OF INDUSTRY PROGRAM”;

(B) in subsection (a)(2)—

(i) by redesigning subparagraph (E) as subparagraph (F); and

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

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

(C) by striking subsection (e); and

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

(2) CONFORMING AMENDMENT.—Section 454(b)(2)(C) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17113(b)(2)(C)) is amended by striking “energy-intensive industries” and inserting “Future of Industry”.

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

"SEC. 457. INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.

“(a) DEFINITIONS.—In this section:

“(1) COVERED PROJECT.—The term ‘covered project’ means a project—

“(A) that has been recommended in an energy assessment described in paragraph (2)(A) conducted for an eligible entity; and

“(B) with respect to which the plant site of that eligible entity—

“(i) improves—

“(I) energy efficiency;

“(II) material efficiency;

“(III) cybersecurity; or

“(IV) productivity; or

“(ii) reduces—

“(I) waste production;

“(II) greenhouse gas emissions;

or

“(III) nongreenhouse gas pollution."
“(2) ELIGIBLE ENTITY.—The term ‘eligible entity’ means a small- or medium-sized manufacturer that has had an energy assessment completed by—

“(A) an industrial research and assessment center; or

“(B) a third-party assessor that provides an assessment equivalent to that of an industrial research and assessment center, as determined by the Secretary.

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

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

“(B) any utility operating under a utility energy service project.

“(4) INDUSTRIAL RESEARCH AND ASSESSMENT CENTER.—The term ‘industrial research and assessment center’ means—

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

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

“(5) PROGRAM.—The term ‘Program’ means the program for implementation grants established under subsection (i)(1).

“(6) SMALL- OR MEDIUM-SIZED MANUFACTURER.—The term ‘small- or medium-sized manufacturer’ means a manufacturing firm—

“(A) the gross annual sales of which are less than $100,000,000;

“(B) that has fewer than 500 employees at the plant site of the manufacturing firm; and

“(C) the annual energy bills of which total more than $100,000 but less than $2,500,000.

“(b) INSTITUTION OF HIGHER EDUCATION-BASED INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—

“(1) IN GENERAL.—The Secretary shall provide funding to institution of higher education-based industrial research and assessment centers.
“(2) PURPOSE.—The purpose of each institution of higher education-based industrial research and assessment center shall be—

“(A) to provide in-depth assessments of small- and medium-sized manufacturer plant sites to evaluate the facilities, services, and manufacturing operations of the plant sites;

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

“(i) smart manufacturing;

“(ii) energy management systems;

“(iii) sustainable manufacturing;

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

“(v) waste management systems;

“(C) to promote applications of emerging concepts and technologies in small- and medium-sized manufacturers (including water and wastewater treatment facilities and federally owned manufacturing facilities);
“(D) to promote research and development for the use of alternative energy sources to supply heat, power, and new feedstocks for energy-intensive industries;

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

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

“(G) to coordinate with State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States.

“(c) COORDINATION.—To increase the value and capabilities of the industrial research and assessment centers, the centers shall—

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

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

“(3) increase partnerships with the National Laboratories of the Department of Energy to lever-
age the expertise, technologies, and research and de-
development capabilities of the National Laboratories
for national industrial and manufacturing needs;
“(4) increase partnerships with energy service
providers and technology providers to leverage pri-
ivate sector expertise and accelerate deployment of
new and existing technologies and processes for en-
ergy efficiency, power factor, and load management;
“(5) identify opportunities for reducing green-
house gas emissions and other air emissions; and
“(6) promote sustainable manufacturing prac-
tices for small- and medium-sized manufacturers.
“(d) OUTREACH.—The Secretary shall provide fund-
ing for—
“(1) outreach activities by the industrial re-
search and assessment centers to inform small- and
medium-sized manufacturers of the information,
technologies, and services available; and
“(2) coordination activities by each industrial
research and assessment center to leverage efforts
with—
“(A) Federal, State, and Tribal efforts;
“(B) the efforts of utilities and energy
service providers;
“(C) the efforts of regional energy efficiency organizations; and

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

“(e) CENTERS OF EXCELLENCE.—

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

“(2) DUTIES.—A Center of Excellence shall coordinate with and advise the industrial research and assessment centers located in the region of the Center of Excellence, including—

“(A) by mentoring new directors and staff of the industrial research and assessment centers with respect to—

“(i) the availability of resources; and

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

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

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

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

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

“(F) by coordinating the outreach activities of the industrial research and assessment centers under subsection (d)(1).
“(3) FUNDING.—For each fiscal year, out of any amounts made available to carry out this section under subsection (j), the Secretary shall use not less than $500,000 to support each Center of Excellence.

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

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

“(2) PURPOSE.—

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

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

“(g) Workforce Training.—

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

“(2) Apprenticeships.—The Secretary shall pay the Federal share of associated apprenticeship programs under which—

“(A) students work with or for industries, manufacturers, and energy service providers to implement the recommendations of industrial research and assessment centers; and

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

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

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

“(i) Implementation Grants.—

“(1) In General.—The Secretary shall establish a program under which the Secretary shall provide grants to eligible entities to implement covered projects.

“(2) Application.—An eligible entity seeking a grant under the Program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including a demonstration of need for financial assistance to implement the proposed covered project.

“(3) Priority.—In awarding grants under the Program, the Secretary shall give priority to eligible entities that—
“(A) have had an energy assessment completed by an industrial research and assessment center; and

“(B) propose to carry out a covered project with a greater potential for—

“(i) energy efficiency gains; or

“(ii) greenhouse gas emissions reductions.

“(4) GRANT AMOUNT.—

“(A) MAXIMUM AMOUNT.—The amount of a grant provided to an eligible entity under the Program shall not exceed $300,000.

“(B) FEDERAL SHARE.—A grant awarded under the Program for a covered project shall be in an amount that is not more than 50 percent of the cost of the covered project.

“(C) SUPPLEMENT.—A grant received by an eligible entity under the Program shall supplement, not supplant, any private or State funds available to the eligible entity to carry out the covered project.

“(j) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary, out of any amounts in the Treasury not otherwise
appropriated, for each of fiscal years 2022 through 2026—

“(1) $30,000,000 to carry out subsections (a) through (h); and

“(2) $80,000,000 to carry out subsection (i).”.

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

“Sec. 457. Industrial research and assessment centers.”.

SEC. 5202. SUSTAINABLE MANUFACTURING INITIATIVE.

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

“SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.

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

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

“(2) preventing pollution and minimizing waste;

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

“(4) conserving natural resources; and
“(5) achieving such other goals as the Secretary determines to be appropriate.

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

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

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

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

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

“(c) RESEARCH AND DEVELOPMENT PROGRAM FOR SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECHNOLOGIES AND PROCESSES.—As part of the industrial efficiency programs of the Department of Energy, the Secretary shall carry out a joint industry-government partnership program to research, develop, and demonstrate new sustainable manufacturing and industrial technologies and
processes that maximize the energy efficiency of industrial
plants, reduce pollution, and conserve natural resources.”).

(b) CLERICAL AMENDMENT.—The table of contents
of the Energy Policy and Conservation Act (42 U.S.C.
prece. 6201) is amended by adding at the end of the items
relating to part E of title III the following:

“Sec. 376. Sustainable manufacturing initiative.”.

PART II—SMART MANUFACTURING

SEC. 5211. DEFINITIONS.

In this part:

(1) ENERGY MANAGEMENT SYSTEM.—The term
“energy management system” means a business
management process based on standards of the
American National Standards Institute that enables
an organization to follow a systematic approach in
achieving continual improvement of energy perform-
ance, including energy efficiency, security, use, and
consumption.

(2) INDUSTRIAL ASSESSMENT CENTER.—The
term “industrial assessment center” means a center
located at an institution of higher education that—

(A) receives funding from the Department;

(B) provides an in-depth assessment of
small- and medium-size manufacturer plant
sites to evaluate the facilities, services, and
manufacturing operations of the plant site; and
(C) identifies opportunities for potential savings for small- and medium-size manufacturer plant sites from energy efficiency improvements, waste minimization, pollution prevention, and productivity improvement.

(3) INFORMATION AND COMMUNICATION TECHNOLOGY.—The term “information and communication technology” means any electronic system or equipment (including the content contained in the system or equipment) used to create, convert, communicate, or duplicate data or information, including computer hardware, firmware, software, communication protocols, networks, and data interfaces.

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

(5) NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM.—The term “North American Industry Classification System” means the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data relating to the business economy of the United States.
(6) **Small and medium manufacturers.**—The term “small and medium manufacturers” means manufacturing firms—

(A) classified in the North American Industry Classification System as any of sectors 31 through 33;

(B) with gross annual sales of less than $100,000,000;

(C) with fewer than 500 employees at the plant site; and

(D) with annual energy bills totaling more than $100,000 and less than $2,500,000.

(7) **Smart manufacturing.**—The term “smart manufacturing” means advanced technologies in information, automation, monitoring, computation, sensing, modeling, artificial intelligence, analytics, and networking that—

(A) digitally—

(i) simulate manufacturing production lines;

(ii) operate computer-controlled manufacturing equipment;

(iii) monitor and communicate production line status; and
(iv) manage and optimize energy productivity and cost throughout production;

(B) model, simulate, and optimize the energy efficiency of a factory building;

(C) monitor and optimize building energy performance;

(D) model, simulate, and optimize the design of energy efficient and sustainable products, including the use of digital prototyping and additive manufacturing to enhance product design;

(E) connect manufactured products in networks to monitor and optimize the performance of the networks, including automated network operations; and

(F) digitally connect the supply chain network.

SEC. 5212. LEVERAGING EXISTING AGENCY PROGRAMS TO ASSIST SMALL AND MEDIUM MANUFACTURERS.

(a) EXPANSION OF TECHNICAL ASSISTANCE PROGRAMS.—The Secretary shall expand the scope of technologies covered by the industrial assessment centers of the Department—
(1) to include smart manufacturing technologies and practices; and

(2) to equip the directors of the industrial assessment centers with the training and tools necessary to provide technical assistance in smart manufacturing technologies and practices, including energy management systems, to manufacturers.

(b) FUNDING.—The Secretary shall use unobligated funds of the Department to carry out this section.

SEC. 5213. LEVERAGING SMART MANUFACTURING INFRASTRUCTURE AT NATIONAL LABORATORIES.

(a) Study.—

(1) In general.—Not later than 180 days after the date of enactment of this Act, the Secretary shall conduct a study on how the Department can increase access to existing high-performance computing resources in the National Laboratories, particularly for small and medium manufacturers.

(2) Inclusions.—In identifying ways to increase access to National Laboratories under paragraph (1), the Secretary shall—

(A) focus on increasing access to the computing facilities of the National Laboratories;

and

(B) ensure that—
(i) the information from the manufacturer is protected; and

(ii) the security of the National Laboratory facility is maintained.

(3) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the results of the study.

(b) ACTIONS FOR INCREASED ACCESS.—The Secretary shall facilitate access to the National Laboratories studied under subsection (a) for small and medium manufacturers so that small and medium manufacturers can fully use the high-performance computing resources of the National Laboratories to enhance the manufacturing competitiveness of the United States.

SEC. 5214. STATE MANUFACTURING LEADERSHIP.

(a) FINANCIAL ASSISTANCE AUTHORIZED.—The Secretary may provide financial assistance on a competitive basis to States for the establishment of programs to be used as models for supporting the implementation of smart manufacturing technologies.

(b) APPLICATIONS.—

(1) IN GENERAL.—To be eligible to receive financial assistance under this section, a State shall submit to the Secretary an application at such time,
in such manner, and containing such information as
the Secretary may require.

(2) CRITERIA.—The Secretary shall evaluate an
application for financial assistance under this section
on the basis of merit using criteria identified by the
Secretary, including—

(A) technical merit, innovation, and im-
pact;

(B) research approach, workplan, and
deliverables;

(C) academic and private sector partners;

and

(D) alternate sources of funding.

(e) REQUIREMENTS.—

(1) TERM.—The term of an award of financial
assistance under this section shall not exceed 3
years.

(2) MAXIMUM AMOUNT.—The amount of an
award of financial assistance under this section shall
be not more than $2,000,000.

(3) MATCHING REQUIREMENT.—Each State
that receives financial assistance under this section
shall contribute matching funds in an amount equal
to not less than 30 percent of the amount of the fi-
nancial assistance.
(d) USE OF FUNDS.—

(1) IN GENERAL.—A State may use financial assistance provided under this section—

(A) to facilitate access to high-performance computing resources for small and medium manufacturers; and

(B) to provide assistance to small and medium manufacturers to implement smart manufacturing technologies and practices.

(e) EVALUATION.—The Secretary shall conduct semiannual evaluations of each award of financial assistance under this section—

(1) to determine the impact and effectiveness of programs funded with the financial assistance; and

(2) to provide guidance to States on ways to better execute the program of the State.

(f) AUTHORIZATION.—There is authorized to be appropriated to the Secretary to carry out this section $10,000,000 for each of fiscal years [2022 through 2026].

SEC. 5215. REPORT.

The Secretary annually shall submit to Congress and make publicly available a report on the progress made in advancing smart manufacturing in the United States.
Subtitle D—Schools and Nonprofits

SEC. 5301. GRANTS FOR ENERGY EFFICIENCY IMPROVEMENTS AND RENEWABLE ENERGY IMPROVEMENTS AT PUBLIC SCHOOL FACILITIES.

(a) Definitions.—In this section:

(1) Eligible entity.—The term “eligible entity” means a consortium of—

(A) 1 local educational agency; and

(B) 1 or more—

(i) schools;

(ii) nonprofit organizations;

(iii) for-profit organizations; or

(iv) community partners that have the knowledge and capacity to partner and assist with energy improvements.

(2) Energy improvement.—The term “energy improvement” means—

(A) any improvement, repair, or renovation to a school that results in a direct reduction in school energy costs, including improvements to the envelope, air conditioning system, ventilation system, heating system, domestic hot water heating system, compressed air system, distribution system, lighting system, power system, and controls of a building;
(B) any improvement, repair, or renovation to, or installation in, a school that leads to an improvement in teacher and student health, including indoor air quality, daylighting, ventilation, electrical lighting, windows, roofing (including green roofs), outdoor gardens, and acoustics;

(C) any improvement, repair, or renovation to a school involving the installation of renewable energy technologies (such as wind power, photovoltaics, solar thermal systems, geothermal energy, hydrogen-fueled systems, biomass-based systems, biofuels, anaerobic digesters, and hydropower);

(D) the installation of zero-emissions vehicle infrastructure on school grounds for—

(i) exclusive use of school buses, school fleets, or students; or

(ii) the general public; and

(E) the purchase or lease of zero-emissions vehicles to be used by a school, including school buses, fleet vehicles, and other operational vehicles.

(3) HIGH SCHOOL.—The term “high school” has the meaning given the term in section 8101 of

(4) LOCAL EDUCATIONAL AGENCY.—The term “local educational agency” has the meaning given the term in section 8101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(5) PARTNERING LOCAL EDUCATIONAL AGENCY.—The term “partnering local educational agency”, with respect to an eligible entity, means the local educational agency participating in the consortium of the eligible entity.

(6) ZERO-EMISSIONS VEHICLE INFRASTRUCTURE.—The term “zero-emissions vehicle infrastructure” means infrastructure used to charge or fuel—

(A) a zero-emission vehicle (as defined in section 88.102–94 of title 40, Code of Federal Regulations (or successor regulation)); or

(B) a vehicle that produces zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational mode or condition.

(b) GRANTS.—The Secretary shall award competitive grants to eligible entities to make energy improvements in accordance with this section.

(c) APPLICATIONS.—
(1) **IN GENERAL.**—An eligible entity desiring a grant under this section shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(2) **CONTENTS.**—The application submitted under paragraph (1) shall include each of the following:

(A) A needs assessment of the current condition of the school and school facilities that will receive the energy improvements.

(B) A draft work plan of the intended achievements of the eligible entity at the school.

(C) A description of the energy improvements that the eligible entity will carry out at the school.

(D) A description of the capacity of the eligible entity to provide services and comprehensive support to make the energy improvements referred to in subparagraph (C).

(E) An assessment of the expected needs of the eligible entity for operation and maintenance training funds, and a plan for use of those funds, if applicable.
(F) An assessment of the expected energy efficiency and safety benefits of the energy improvements.

(G) A cost estimate of the proposed energy improvements.

(H) An identification of other resources that are available to carry out the activities for which grant funds are requested under this section, including the availability of utility programs and public benefit funds.

(d) PRIORITY.—

(1) IN GENERAL.—In awarding grants under this section, the Secretary shall give priority to an eligible entity—

(A) that has renovation, repair, and improvement funding needs; and

(B)(i) that, as determined by the Secretary, serves a high percentage of students, including students in a high school in accordance with paragraph (2), who are eligible for a free or reduced price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.); or

(ii) the partnering local educational agency of which is designated with a school district lo-
cale code of 41, 42, or 43, as determined by the National Center for Education Statistics in consultation with the Bureau of the Census.

(2) **HIGH SCHOOL STUDENTS.**—In the case of students in a high school, the percentage of students eligible for a free or reduced price lunch described in paragraph (1)(B)(i) shall be calculated using data from the schools that feed into the high school.

(e) **COMPETITIVE CRITERIA.**—The competitive criteria used by the Secretary to award grants under this section shall include the following:

(1) The extent of the disparity between the fiscal capacity of the eligible entity to carry out energy improvements at school facilities and the needs of the partnering local educational agency for those energy improvements, including consideration of—

(A) the current and historic ability of the partnering local educational agency to raise funds for construction, renovation, modernization, and major repair projects for schools; and

(B) the ability of the partnering local educational agency to issue bonds or receive other funds to support the current infrastructure needs of the partnering local educational agency for schools; and
(C) the bond rating of the partnering local educational agency.

(2) The likelihood that the partnering local educational agency or eligible entity will maintain, in good condition, any school and school facility that is the subject of improvements.

(3) The potential energy efficiency and safety benefits from the proposed energy improvements.

(f) USE OF GRANT AMOUNTS.—

(1) IN GENERAL.—Except as provided in this subsection, an eligible entity receiving a grant under this section shall use the grant amounts only to make the energy improvements described in the application submitted by the eligible entity under subsection (c).

(2) OPERATION AND MAINTENANCE TRAINING.—An eligible entity receiving a grant under this section may use not more than 5 percent of the grant amounts for operation and maintenance training for energy efficiency and renewable energy improvements, such as maintenance staff and teacher training, education, and preventative maintenance training.

(3) THIRD-PARTY INVESTIGATION AND ANALYSIS.—An eligible entity receiving a grant under this
section may use a portion of the grant amounts for a third-party investigation and analysis of the energy improvements carried out by the eligible entity, such as energy audits and existing building commissioning.

(4) CONTINUING EDUCATION.—An eligible entity receiving a grant under this section may use not more than 3 percent of the grant amounts to develop a continuing education curriculum relating to energy improvements.

(g) COMPETITION IN CONTRACTING.—If an eligible entity receiving a grant under this section uses grant funds to carry out repair or renovation through a contract, the eligible entity shall be required to ensure that the contract process—

(1) through full and open competition, ensures the maximum practicable number of qualified bidders, including small, minority, and women-owned businesses; and

(2) gives priority to businesses located in, or resources common to, the State or geographical area in which the repair or renovation under the contract will be carried out.
(h) BEST PRACTICES.—The Secretary shall develop and publish guidelines and best practices for activities carried out under this section.

(i) REPORT BY ELIGIBLE ENTITY.—An eligible entity receiving a grant under this section shall submit to the Secretary, at such time as the Secretary may require, a report describing—

(1) the use of the grant funds for energy improvements;

(2) the estimated cost savings realized by those energy improvements;

(3) the results of any third-party investigation and analysis conducted relating to those energy improvements;

(4) the use of any utility programs and public benefit funds; and

(5) the use of performance tracking for energy improvements, such as—

(A) the Energy Star program established under section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a); or

(B) the United States Green Building Council Leadership in Energy and Environmental Design (LEED) green building rating system for existing buildings.
(j) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $100,000,000 for each of fiscal years 2022 through 2026.

SEC. 5302. ENERGY EFFICIENCY MATERIALS PILOT PROGRAM.

(a) DEFINITIONS.—In this section:

(1) APPLICANT.—The term “applicant” means a nonprofit organization that applies for a grant under this section.

(2) ENERGY-EFFICIENCY MATERIAL.—

(A) IN GENERAL.—The term “energy-efficiency material” means a material (including a product, equipment, or system) the installation of which results in a reduction in use by a nonprofit organization of energy or fuel.

(B) INCLUSIONS.—The term “energy-efficiency material” includes—

(i) a roof or lighting system or component of the system;

(ii) a window;

(iii) a door, including a security door;

(iv) a heating, ventilation, or air conditioning system or component of the sys-
tem (including insulation and wiring and plumbing improvements needed to serve a more efficient system); and

(v) a renewable energy generation or heating system, including a solar, photovoltaic, wind, geothermal, or biomass (including wood pellet) system or component of the system.

(3) NONPROFIT BUILDING.—

(A) IN GENERAL.—The term “nonprofit building” means a building operated and owned by an organization that is described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from tax under section 501(a) of such Code.

(B) INCLUSIONS.—The term “nonprofit building” includes a building described in sub-paragraph (A) that is—

(i) a hospital;

(ii) a youth center;

(iii) a school;

(iv) a social-welfare program facility;

(v) a faith-based organization; or

(vi) any other nonresidential and non-commercial structure.
(b) Establishment.—Not later than 1 year after the date of enactment of this Act, the Secretary shall establish a pilot program to award grants for the purpose of providing nonprofit buildings with energy-efficiency materials.

(c) Grants.—

(1) In general.—The Secretary may award grants under the program established under subsection (b).

(2) Application.—The Secretary may award a grant under paragraph (1) if an applicant submits to the Secretary an application at such time, in such form, and containing such information as the Secretary may prescribe.

(3) Criteria for grant.—In determining whether to award a grant under paragraph (1), the Secretary shall apply performance-based criteria, which shall give priority to applicants based on—

(A) the energy savings achieved;

(B) the cost effectiveness of the use of energy-efficiency materials;

(C) an effective plan for evaluation, measurement, and verification of energy savings; and

(D) the financial need of the applicant.
(4) LIMITATION ON INDIVIDUAL GRANT AMOUNT.—Each grant awarded under this section shall not exceed $200,000.

(d) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in the Treasury not otherwise appropriated, $10,000,000 for each of fiscal years 2022 through 2026, to remain available until expended.

Subtitle E—Miscellaneous

SEC. 5401. WEATHERIZATION ASSISTANCE PROGRAM.

In addition to amounts otherwise available, there is appropriated to the Secretary, out of any amounts in the Treasury not otherwise appropriated, for the weatherization assistance program established under part A of title IV of the Energy Conservation and Production Act (42 U.S.C. 6861 et seq.) $3,500,000,000 for fiscal year 2022, to remain available until expended.

SEC. 5402. ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANT PROGRAM.

In addition to amounts otherwise available, there is appropriated to the Secretary, out of any amounts in the Treasury not otherwise appropriated, for the Energy Efficiency and Conservation Block Grant Program established under section 542(a) of the Energy Independence and Se-
SEC. 5403. SURVEY, ANALYSIS, AND REPORT ON EMPLOYMENT AND DEMOGRAPHICS IN THE ENERGY, ENERGY EFFICIENCY, AND MOTOR VEHICLE SECTORS OF THE UNITED STATES.

(a) Energy Jobs Council.—

(1) Establishment.—The Secretary shall establish a council, to be known as the “Energy Jobs Council” (referred to in this section as the “Council”).

(2) Membership.—The Council shall be comprised of—

(A) to be appointed by the Secretary—

(i) 1 or more representatives of the Energy Information Administration; and

(ii) 1 or more representatives of a State energy office that are serving as members of the State Energy Advisory Board established by section 365(g) of the Energy Policy and Conservation Act (42 U.S.C. 6325(g));

(B) to be appointed by the Secretary of Commerce—
(i) 1 or more representatives of the Department of Commerce; and

(ii) 1 or more representatives of the Bureau of the Census;

(C) 1 or more representatives of the Bureau of Labor Statistics, to be appointed by the Secretary of Labor; and

(D) 1 or more representatives of any other Federal agency the assistance of which is required to carry out this section, as determined by the Secretary, to be appointed by the head of the applicable agency.

(b) Survey and Analysis.—

(1) In general.—The Council shall—

(A) conduct a survey of employers in the energy, energy efficiency, and motor vehicle sectors of the economy of the United States; and

(B) perform an analysis of the employment figures and demographics in those sectors, including the number of personnel in each sector who devote a substantial portion of working hours, as determined by the Secretary, to compliance matters.
(2) METHODOLOGY.—In conducting the survey and analysis under paragraph (1), the Council shall employ a methodology that—

(A) was approved in 2016 by the Office of Management and Budget for use in the document entitled “OMB Control Number 1910–5179”;

(B) uses a representative, stratified sampling of businesses in the United States; and

(C) is designed to elicit a comparable number of responses from businesses in each State and with the same North American Industry Classification System codes as were received for the 2016 and 2017 reports entitled “U.S. Energy and Employment Report”.

(3) CONSULTATION.—In conducting the survey and analysis under paragraph (1), the Council shall consult with key stakeholders, including—

(A) as the Council determines to be appropriate, the heads of relevant Federal agencies and offices, including—

(i) the Secretary of Commerce;

(ii) the Secretary of Transportation;

(iii) the Director of the Bureau of the Census;
(iv) the Commissioner of the Bureau of Labor Statistics; and

(v) the Administrator of the Environmental Protection Agency;

(B) States;

(C) the State Energy Advisory Board established by section 365(g) of the Energy Policy and Conservation Act (42 U.S.C. 6325(g)); and

(D) energy industry trade associations.

(c) REPORT.—

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

(A) make publicly available on the website of the Department a report, to be entitled the “U.S. Energy and Employment Report”, describing the employment figures and demographics in the energy, energy efficiency, and motor vehicle sectors of the United States based on the survey and analysis conducted under subsection (b); and

(B) subject to the requirements of subchapter III of chapter 35 of title 44, United States Code, make the data collected by the
(2) CONTENTS.—

(A) IN GENERAL.—The report under paragraph (1) shall include employment figures and demographic data for—

(i) the energy sector of the economy of the United States, including—

(I) the electric power generation and fuels sector; and

(II) the transmission, storage, and distribution sector;

(ii) the energy efficiency sector of the economy of the United States; and

(iii) the motor vehicle sector of the economy of the United States.

(B) INCLUSION.—With respect to each sector described in subparagraph (A), the report under paragraph (1) shall include employment figures and demographic data sorted by—

(i) each technology, subtechnology, and fuel type of those sectors; and

(ii) subject to the requirements of the Confidential Information Protection and
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(I) each State;

(II) each territory of the United States;

(III) the District of Columbia;

and

(IV) each county (or equivalent jurisdiction) in the United States.

SEC. 5404. ASSISTING FEDERAL FACILITIES WITH ENERGY CONSERVATION TECHNOLOGIES GRANT PROGRAM.

In addition to amounts otherwise made available, there is appropriated to the Secretary, out of any amounts in the Treasury not otherwise appropriated, to provide grants authorized under section 546(b) of the National Energy Conservation Policy Act (42 U.S.C. 8256(b)), $250,000,000 for fiscal year 2022, to remain available until expended.

SEC. 5405. REBATES.

In addition to amounts otherwise made available, there is appropriated to the Secretary, out of any amounts in the Treasury not otherwise appropriated, for each of fiscal years 2022 and 2023—
(1) $5,000,000 for the extended product system rebate program authorized under section 1005 of the Energy Act of 2020 (42 U.S.C. 6311 note; Public Law 116–260); and

(2) $5,000,000 for the energy efficient transformer rebate program authorized under section 1006 of the Energy Act of 2020 (42 U.S.C. 6317 note; Public Law 116–260).

SEC. 5406. MODEL GUIDANCE FOR COMBINED HEAT AND POWER SYSTEMS AND WASTE HEAT TO POWER SYSTEMS.

(a) Definitions.—In this section:

(1) Additional services.—The term “additional services” means the provision of supplementary power, backup or standby power, maintenance power, or interruptible power to an electric consumer by an electric utility.

(2) Waste heat to power system.—

(A) In general.—The term “waste heat to power system” means a system that generates electricity through the recovery of waste energy.

(B) Exclusion.—The term “waste heat to power system” does not include a system that generates electricity through the recovery
of a heat resource from a process the primary purpose of which is the generation of electricity using a fossil fuel.

(3) Other terms.—

(A) PURPA.—The terms “electric consumer”, “electric utility”, “interconnection service”, “nonregulated electric utility”, and “State regulatory authority” have the meanings given those terms in the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.), within the meaning of title I of that Act (16 U.S.C. 2611 et seq.).

(B) EPCA.—The terms “combined heat and power system” and “waste energy” have the meanings given those terms in section 371 of the Energy Policy and Conservation Act (42 U.S.C. 6341).

(b) Review.—

(1) In general.—Not later than 180 days after the date of enactment of this Act, the Secretary, in consultation with the Federal Energy Regulatory Commission and other appropriate entities, shall review existing rules and procedures relating to interconnection service and additional services throughout the United States for electric generation
with nameplate capacity up to 20 megawatts to identify barriers to the deployment of combined heat and power systems and waste heat to power systems.

(2) INCLUSION.—The review under this subsection shall include a review of existing rules and procedures relating to—

(A) determining and assigning costs of interconnection service and additional services; and

(B) ensuring adequate cost recovery by an electric utility for interconnection service and additional services.

(c) MODEL GUIDANCE.—

(1) IN GENERAL.—Not later than 18 months after the date of enactment of this Act, the Secretary, in consultation with the Federal Energy Regulatory Commission and other appropriate entities, shall issue model guidance for interconnection service and additional services for consideration by State regulatory authorities and nonregulated electric utilities to reduce the barriers identified under subsection (b)(1).

(2) CURRENT BEST PRACTICES.—The model guidance issued under this subsection shall reflect, to the maximum extent practicable, current best
practices to encourage the deployment of combined
heat and power systems and waste heat to power
systems while ensuring the safety and reliability of
the interconnected units and the distribution and
transmission networks to which the units connect,
including—

(A) relevant current standards developed
by the Institute of Electrical and Electronic En-
geineers; and

(B) model codes and rules adopted by—

(i) States; or

(ii) associations of State regulatory
    agencies.

(3) FACTORS FOR CONSIDERATION.—In estab-
lishing the model guidance under this subsection, the
Secretary shall take into consideration—

(A) the appropriateness of using standards
or procedures for interconnection service that
vary based on unit size, fuel type, or other rel-
levant characteristics;

(B) the appropriateness of establishing
fast-track procedures for interconnection serv-
ice;

(C) the value of consistency with Federal
interconnection rules established by the Federal
Energy Regulatory Commission as of the date of enactment of this Act;

(D) the best practices used to model outage assumptions and contingencies to determine fees or rates for additional services;

(E) the appropriate duration, magnitude, or usage of demand charge ratchets;

(F) potential alternative arrangements with respect to the procurement of additional services, including—

(i) contracts tailored to individual electric consumers for additional services;

(ii) procurement of additional services by an electric utility from a competitive market; and

(iii) waivers of fees or rates for additional services for small electric consumers;

and

(G) outcomes such as increased electric reliability, fuel diversification, enhanced power quality, and reduced electric losses that may result from increased use of combined heat and power systems and waste heat to power systems.
TITLE VI—METHANE
REDUCTION INFRASTRUCTURE

SEC. 6001. ORPHANED WELL SITE PLUGGING, REMEDIATION, AND RESTORATION.

Section 349 of the Energy Policy Act of 2005 (42 U.S.C. 15907) is amended to read as follows:

“SEC. 349. ORPHANED WELL SITE PLUGGING, REMEDIATION, AND RESTORATION.

“(a) DEFINITIONS.—In this section:

“(1) FEDERAL LAND.—The term ‘Federal land’ means land administered by a land management agency within—

“(A) the Department of Agriculture; or

“(B) the Department of the Interior.

“(2) IDLED WELL.—The term ‘idled well’ means a well—

“(A) that has been nonoperational for not fewer than 4 years; and

“(B) for which there is no anticipated beneficial future use.

“(3) INDIAN TRIBE.—The term ‘Indian Tribe’ has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).
“(4) OPERATOR.—The term ‘operator’, with respect to an oil or gas operation, means any entity, including a lessee or operating rights owner, that has provided to a relevant authority a written statement that the entity is responsible for the oil or gas operation, or any portion of the operation.

“(5) ORPHANED WELL.—The term ‘orphaned well’—

“(A) with respect to Federal land or Tribal land, means a well—

“(i) that is not used for an authorized purpose, such as production, injection, or monitoring; and

“(ii)(I) for which no operator can be located; or

“(II) the operator of which is unable—

“(aa) to plug the well; and

“(bb) to remediate and reclaim the well site; and

“(B) with respect to State or private land—

“(i) has the meaning given the term by the applicable State; or
“(ii) if that State uses different terminology, has the meaning given another term used by the State to describe a well eligible for plugging, remediation, and reclamation by the State.

“(6) TRIBAL LAND.—The term ‘Tribal land’ means any land or interest in land owned by an Indian Tribe, the title to which is—

“(A) held in trust by the United States; or

“(B) subject to a restriction against alienation under Federal law.

“(b) FEDERAL PROGRAM.—

“(1) ESTABLISHMENT.—Not later than 60 days after the date of enactment of the Energy Infrastructure Act, the Secretary shall establish a program to plug, remediate, and reclaim orphaned wells located on Federal land.

“(2) INCLUDED ACTIVITIES.—The program under this subsection shall—

“(A) include a method of—

“(i) identifying, characterizing, and inventorying orphaned wells and associated pipelines, facilities, and infrastructure on Federal land; and
“(ii) ranking those orphaned wells for priority in plugging, remediation, and reclamation, based on—

“(I) public health and safety;

“(II) potential environmental harm; and

“(III) other subsurface impacts or land use priorities;

“(B) distribute funding in accordance with the priorities established under subparagraph (A)(ii) for—

“(i) plugging orphaned wells;

“(ii) remediating and reclaiming well pads and facilities associated with orphaned wells;

“(iii) remediating soil and restoring native species habitat that has been degraded due to the presence of orphaned wells and associated pipelines, facilities, and infrastructure; and

“(iv) remediating land adjacent to orphaned wells and decommissioning or removing associated pipelines, facilities, and infrastructure;
“(C) provide a public accounting of the costs of plugging, remediation, and reclamation for each orphaned well;

“(D) seek to determine the identities of potentially responsible parties associated with the orphaned well (or a surety or guarantor of such a party), to the extent such information can be ascertained, and make efforts to obtain reimbursement for expenditures to the extent practicable;

“(E) measure and track—

“(i) emissions of methane and other gases associated with orphaned wells; and

“(ii) contamination of groundwater or surface water associated with orphaned wells; and

“(F) identify and address any disproportionate burden of adverse human health or environmental effects of orphaned wells on communities of color, low-income communities, and Tribal and indigenous communities.

“(3) IDLED WELLS.—The Secretary, acting through the Director of the Bureau of Land Management, shall—
“(A) periodically review all idled wells on Federal land; and

“(B) reduce the inventory of idled wells on Federal land.

“(4) COOPERATION AND CONSULTATION.—In carrying out the program under this subsection, the Secretary shall—

“(A) work cooperatively with—

“(i) the Secretary of Agriculture;

“(ii) affected Indian Tribes; and

“(iii) each State within which Federal land is located; and

“(B) consult with—

“(i) the Secretary of Energy; and

“(ii) the Interstate Oil and Gas Compact Commission.

“(c) FUNDING FOR STATE PROGRAMS.—

“(1) IN GENERAL.—The Secretary shall provide to States, in accordance with this subsection—

“(A) initial grants under paragraph (3);

“(B) formula grants under paragraph (4); and

“(C) performance grants under paragraph (5).

“(2) ACTIVITIES.—
“(A) In general.—A State may use funding provided under this subsection for any of the following purposes:

“(i) To plug, remediate, and reclaim orphaned wells located on State-owned or privately owned land.

“(ii) To identify and characterize undocumented orphaned wells on State and private land.

“(iii) To rank orphaned wells based on factors including—

“(I) public health and safety;

“(II) potential environmental harm; and

“(III) other land use priorities.

“(iv) To make information regarding the use of funds received under this subsection available on a public website.

“(v) To measure and track—

“(I) emissions of methane and other gases associated with orphaned wells; and

“(II) contamination of groundwater or surface water associated with orphaned wells.
“(vi) To remediate soil and restore native species habitat that has been degraded due to the presence of orphaned wells and associated pipelines, facilities, and infrastructure.

“(vii) To remediate land adjacent to orphaned wells and decommission or remove associated pipelines, facilities, and infrastructure.

“(viii) To identify and address any disproportionate burden of adverse human health or environmental effects of orphaned wells on communities of color, low-income communities, and Tribal and indigenous communities.

“(ix) Subject to subparagraph (B), to administer a program to carry out any activities described in clauses (i) through (viii).

“(B) ADMINISTRATIVE COST LIMITATION.—

“(i) IN GENERAL.—Except as provided in clause (ii), a State shall not use more than 10 percent of the funds received under this subsection during a fiscal year
for administrative costs under subpar-
graph (A)(ix).

“(ii) **EXCEPTION.**—The limitation
under clause (i) shall not apply to funds
used by a State as described in paragraph
(3)(A)(ii).

“(3) **INITIAL GRANTS.**—

“(A) **IN GENERAL.**—The Secretary shall
distribute—

“(i) not more than $25,000,000 to
each State that submits to the Secretary,
by not later than 180 days after the date
of enactment of Energy Infrastructure Act,
a request for funding under this clause, in-
cluding—

“(I) an estimate of the number
of jobs that will be created or saved
through the activities proposed to be
funded; and

“(II) a certification that—

“(aa) the State is a Member
State or Associate Member State
of the Interstate Oil and Gas
Compact Commission;
“(bb) there are 1 or more documented orphaned wells located in the State; and

“(cc) the State will use not less than 90 percent of the funding requested under this subsection to issue new contracts, amend existing contracts, or issue grants for plugging, remediation, and reclamation work by not later than 90 days after the date of receipt of the funds; and

“(ii) not more than $5,000,000 to each State that—

“(I) requests funding under this clause;

“(II) does not receive a grant under clause (i); and

“(III) certifies to the Secretary that—

“(aa) the State—

“(AA) has in effect a plugging, remediation, and reclamation program for orphaned wells; or
“(BB) the capacity to initiate such a program; or

“(bb) the funds provided under this paragraph will be used to carry out any administrative actions necessary to develop an application for a formula grant under paragraph (4) or a performance grant under paragraph (5).

“(B) DISTRIBUTION.—The Secretary shall distribute funds to a State under this paragraph by not later than the date that is 30 days after the date on which the State submits to the Secretary the certification required under clause (i)(II) or (ii)(III) of subparagraph (A), as applicable.

“(C) DEADLINE FOR EXPENDITURE.—A State that receives funds under this paragraph shall reimburse the Secretary in an amount equal to the amount of the funds that remain unobligated on the date that is 1 year after the date of receipt of the funds.

“(D) REPORT.—Not later than 15 months after the date on which a State receives funds
under this paragraph, the State shall submit to
the Secretary a report that describes the means
by which the State used the funds in accord-
ance with the certification submitted by the
State under subparagraph (A).

“(4) FORMULA GRANTS.—

“(A) ESTABLISHMENT.—

“(i) IN GENERAL.—The Secretary
shall establish a formula for the distribu-
tion to each State described in clause (ii)
of funds under this paragraph.

“(ii) DESCRIPTION OF STATES.—A
State referred to in clause (i) is a State
that, by not later than 45 days after the
date of enactment of the Energy Infra-
structure Act, submits to the Secretary a
notice of the intent of the State to submit
an application under subparagraph (B), in-
cluding a description of the factors de-
scribed in clause (iii) with respect to the
State.

“(iii) FACTORS.—The formula estab-
lished under clause (i) shall account for,
with respect to an applicant State, the fol-
lowing factors:
“(I) Job losses in the oil and gas industry in the State during the period—

“(aa) beginning on March 1, 2020; and

“(bb) ending on the date of enactment of the Energy Infrastructure Act.

“(II) The number of documented orphaned wells located in the State, and the projected cost—

“(aa) to plug or reclaim those orphaned wells;

“(bb) to reclaim adjacent land; and

“(cc) to decommission or remove associated pipelines, facilities, and infrastructure.

“(iv) Publication.—Not later than 75 days after the date of enactment of the Energy Infrastructure Act, the Secretary shall publish on a public website the amount that each State is eligible to receive under the formula under this subparagraph.
“(B) APPLICATION.—To be eligible to receive a formula grant under this paragraph, a State shall submit to the Secretary an application that includes—

“(i) a description of—

“(I) the State program for orphaned well plugging, remediation, and restoration, including legal authorities, processes used to identify and prioritize orphaned wells, procurement mechanisms, and other program elements demonstrating the readiness of the State to carry out proposed activities using the grant;

“(II) the activities to be carried out with the grant, including an identification of the estimated health, safety, habitat, and environmental benefits of plugging, remediating, or reclaiming orphaned wells; and

“(III) the means by which the information regarding the activities of the State under this paragraph will be made available on a public website;

“(ii) an estimate of—
“(I) the number of orphaned wells in the State that will be plugged, remediated, or reclaimed;

“(II) the projected cost of—

“(aa) plugging, remediating, or reclaiming orphaned wells;

“(bb) remediating or reclaiming adjacent land; and

“(cc) decommissioning or removing associated pipelines, facilities, and infrastructure;

“(III) the amount of that projected cost that will be offset by the forfeiture of financial assurance instruments, the estimated salvage of well site equipment, or other proceeds from the orphaned wells and adjacent land;

“(IV) the number of jobs that will be created or saved through the activities to be funded under this paragraph; and

“(V) the amount of funds to be spent on administrative costs;
“(iii) a certification that any financial assurance instruments available to cover plugging, remediation, or reclamation costs will be used by the State; and

“(iv) the definitions and processes used by the State to formally identify a well as—

“(I) an orphaned well; or

“(II) if the State uses different terminology, otherwise eligible for plugging, remediation, and reclamation by the State.

“(C) DISTRIBUTION.—The Secretary shall distribute funds to a State under this paragraph by not later than the date that is 60 days after the date on which the State submits to the Secretary a completed application under subparagraph (B).

“(D) DEADLINE FOR EXPENDITURE.—A State that receives funds under this paragraph shall reimburse the Secretary in an amount equal to the amount of the funds that remain unobligated on the date that is 5 years after the date of receipt of the funds.
“(E) Consultation.—In making a determination under this paragraph regarding the eligibility of a State to receive a formula grant, the Secretary shall consult with—

“(i) the Administrator of the Environmental Protection Agency;

“(ii) the Secretary of Energy; and

“(iii) the Interstate Oil and Gas Compact Commission.

“(5) Performance Grants.—

“(A) Establishment.—The Secretary shall provide to States, in accordance with this paragraph—

“(i) regulatory improvement grants under subparagraph (E); and

“(ii) matching grants under subparagraph (F).

“(B) Application.—To be eligible to receive a grant under this paragraph, a State shall submit to the Secretary an application including—

“(i) each element described in an application for a grant under paragraph (4)(B);
“(ii) activities carried out by the State to address orphaned wells located in the State, including—

“(I) increasing State spending on well plugging, remediation, and reclamation; or

“(II) improving regulation of oil and gas wells; and

“(iii) the means by which the State will use funds provided under this paragraph—

“(I) to lower unemployment in the State; and

“(II) to improve economic conditions in economically distressed areas of the State.

“(C) DISTRIBUTION.—The Secretary shall distribute funds to a State under this paragraph by not later than the date that is 60 days after the date on which the State submits to the Secretary a completed application under subparagraph (B).

“(D) CONSULTATION.—In making a determination under this paragraph regarding the eligibility of a State to receive a grant under
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subparagraph (E) or (F), the Secretary shall consult with—

“(i) the Administrator of the Environmental Protection Agency;

“(ii) the Secretary of Energy; and

“(iii) the Interstate Oil and Gas Compact Commission.

“(E) REGULATORY IMPROVEMENT GRANTS.—

“(i) IN GENERAL.—Beginning on the date that is 180 days after the date on which an initial grant is provided to a State under paragraph (3), the Secretary shall provide to the State a regulatory improvement grant under this subparagraph, if the State meets, during the 10-year period ending on the date on which the State submits to the Secretary an application under subparagraph (B), 1 of the following criteria:

“(I) The State has strengthened plugging standards and procedures designed to ensure that wells located in the State are plugged in an effective manner that protects ground-
water and other natural resources, public health and safety, and the environment.

“(II) The State has made improvements to State programs designed to reduce future orphaned well burdens, such as financial assurance reform, alternative funding mechanisms for orphaned well programs, and reforms to programs relating to well transfer or temporary abandonment.

“(ii) LIMITATIONS.—

“(I) NUMBER.—The Secretary may issue to a State under this subparagraph not more than 1 grant for each criterion described in subclause (I) or (II) of clause (i).

“(II) MAXIMUM AMOUNT.—The amount of a single grant provided to a State under this subparagraph shall be not more than $20,000,000.

“(iii) REIMBURSEMENT FOR FAILURE TO MAINTAIN PROTECTIONS.—A State that receives a grant under this subparagraph
shall reimburse the Secretary in an amount equal to the amount of the grant in any case in which, during the 10-year period beginning on the date of receipt of the grant, the State enacts a law or regulation that, if in effect on the date of submission of the application under subparagraph (B), would have prevented the State from being eligible to receive the grant under clause (i).

“(F) MATCHING GRANTS.—

“(i) IN GENERAL.—Beginning on the date that is 180 days after the date on which an initial grant is provided to a State under paragraph (3), the Secretary shall provide to the State funding, in an amount equal to the difference between—

“(I) the average annual amount expended by the State during the period of fiscal years 2010 through 2019—

“(aa) to plug, remediate, and reclaim orphaned wells; and
“(bb) to decommission or remove associated pipelines, facilities, or infrastructure; and
“(II) the amount that the State certifies to the Secretary the State will expend, during the fiscal year in which the State will receive the grant under this subparagraph—
“(aa) to plug, remediate, and reclaim orphaned wells;
“(bb) to remediate or reclaim adjacent land; and
“(cc) to decommission or remove associated pipelines, facilities, and infrastructure.
“(ii) LIMITATIONS.—
“(I) FISCAL YEAR.—The Secretary may issue to a State under this subparagraph not more than 1 grant for each fiscal year.
“(II) TOTAL FUNDS PROVIDED.—The Secretary may provide to a State under this subparagraph a total amount equal to not more than
$30,000,000 during the period of fiscal years 2022 through 2031.

“(d) Tribal Orphaned Well Site Plugging, Remediation, and Restoration.—

“(1) Establishment.—The Secretary shall establish in the Bureau of Indian Affairs a program under which the Secretary shall provide to Indian Tribes grants in accordance with this subsection.

“(2) Eligible Activities.—

“(A) In general.—An Indian Tribe may use a grant received under this subsection—

“(i) to plug, remediate, or reclaim an orphaned well on Tribal land of the Indian Tribe;

“(ii) to remediate soil and restore native species habitat that has been degraded due to the presence of an orphaned well or associated pipelines, facilities, or infrastructure on Tribal land;

“(iii) to remediate Tribal land adjacent to orphaned wells and decommission or remove associated pipelines, facilities, and infrastructure;

“(iv) to provide an online public accounting of the cost of plugging, remediation,
ation, and reclamation for each orphaned well site on Tribal land;

“(v) to identify and characterize undocumented orphaned wells on Tribal land; and

“(vi) to develop or administer a Tribal program to carry out any activities described in clauses (i) through (v).

“(B) ADMINISTRATIVE COST LIMITATION.—

“(i) IN GENERAL.—Except as provided in clause (ii), an Indian Tribe shall not use more than 10 percent of the funds received under this subsection during a fiscal year for administrative costs under subparagraph (A)(vi).

“(ii) EXCEPTION.—The limitation under clause (i) shall not apply to any funds used to carry out an administrative action necessary for the development of a Tribal program described in subparagraph (A)(vi).

“(3) FACTORS FOR CONSIDERATION.—In determining whether to provide to an Indian Tribe a
grant under this subsection, the Secretary shall take into consideration—

“(A) the unemployment rate of the Indian Tribe on the date on which the Indian Tribe submits an application under paragraph (4); and

“(B) the estimated number of orphaned wells on the Tribal land of the Indian Tribe.

“(4) APPLICATION.—To be eligible to receive a grant under this subsection, an Indian Tribe shall submit to the Secretary an application that includes—

“(A) a description of—

“(i) the Tribal program for orphaned well plugging, remediation, and restoration, including legal authorities, processes used to identify and prioritize orphaned wells, procurement mechanisms, and other program elements demonstrating the readiness of the Indian Tribe to carry out the proposed activities, or plans to develop such a program; and

“(ii) the activities to be carried out with the grant, including an identification of the estimated health, safety, habitat,
and environmental benefits of plugging, remediating, or reclaiming orphaned wells and remediating or reclaiming adjacent land; and

“(B) an estimate of—

“(i) the number of orphaned wells that will be plugged, remediated, or reclaimed; and

“(ii) the projected cost of—

“(I) plugging, remediating, or reclaiming orphaned wells;

“(II) remediating or reclaiming adjacent land; and

“(III) decommissioning or removing associated pipelines, facilities, and infrastructure.

“(5) DISTRIBUTION.—The Secretary shall distribute funds to an Indian Tribe under this subsection by not later than the date that is 60 days after the date on which the Indian Tribe submits to the Secretary a completed application under paragraph (4).

“(6) DEADLINE FOR EXPENDITURE.—An Indian Tribe that receives funds under this subsection shall reimburse the Secretary in an amount equal to
the amount of the funds that remain unobligated on
the date that is 5 years after the date of receipt of
the funds.

“(7) Delegation to Secretary.—

“(A) In general.—An Indian Tribe on
the Tribal land of which is located an orphaned
well may submit to the Secretary a request for
the Secretary to administer and carry out plug-
ging, remediation, and reclamation activities re-
lating to the orphaned well on behalf of the In-
dian Tribe.

“(B) Treatment.—For the purposes of
subsection (b), an orphaned well with respect to
which an Indian Tribe of jurisdiction has sub-
mitted to the Secretary a request under sub-
paragraph (A) shall be considered to be located
on Federal land administered by a land man-
agement agency within the Department of the
Interior.

“(e) Technical Assistance.—The Secretary of
Energy, in cooperation with the Secretary and the Inter-
state Oil and Gas Compact Commission, shall provide
technical assistance to the Federal land management
agencies and oil and gas producing States and Indian
Tribes to support practical and economical remedies for
environmental problems caused by orphaned wells on Federal land, Tribal land, and State and private land, including the sharing of best practices in the management of oil and gas well inventories to ensure the availability of funds to plug, remediate, and restore oil and gas well sites on cessation of operation.

“(f) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of the Energy Infrastructure Act, and not less frequently than annually thereafter, the Secretary shall submit to the Committees on Appropriations and Energy and Natural Resources of the Senate and the Committees on Appropriations and Natural Resources of the House of Representatives a report describing the program established and grants awarded under this section, including—

“(1) an updated inventory of wells located on Federal land, Tribal land, and State and private land that are—

“(A) orphaned wells; or

“(B) at risk of becoming orphaned wells;

“(2) an estimate of the quantities of—

“(A) methane and other gasses emitted from orphaned wells; and
“(B) emissions reduced as a result of plugging, remediating, and reclaiming orphaned wells;

“(3) the number of jobs created and saved through the plugging, remediation, and reclamation of orphaned wells; and

“(4) the acreage of habitat restored using grants awarded to plug, remediate, and reclaim orphaned wells and to remediate or reclaim adjacent land, together with a description of the purposes for which that land is likely to be used in the future.

“(g) Effect of Section.—

“(1) No expansion of liability.—Nothing in this section establishes or expands the responsibility or liability of any entity with respect to—

“(A) plugging any well; or

“(B) remediating or reclaiming any well site.

“(2) Tribal land.—Nothing in this section—

“(A) relieves the Secretary of any obligation under section 3 of the Act of May 11, 1938 (25 U.S.C. 396c; 52 Stat. 348, chapter 198), to plug, remediate, or reclaim an orphaned well located on Tribal land; or
“(B) absolves the United States from a responsibility to plug, remediate, or reclaim an orphaned well located on Tribal land or any other responsibility to an Indian Tribe, including any responsibility that derives from—

“(i) the trust relationship between the United States and Indian Tribes;

“(ii) any treaty, law, or Executive order; or

“(iii) any agreement between the United States and an Indian Tribe.

“(3) OWNER OR OPERATOR NOT ABSOLVED.—Nothing in this section absolves the owner or operator of an oil or gas well of any potential liability for—

“(A) reimbursement of any plugging or reclamation costs associated with the well; or

“(B) any adverse effect of the well on the environment.

“(h) FUNDING.—

“(1) APPROPRIATIONS.—Out of any amounts in the Treasury not otherwise appropriated, the Secretary of the Treasury shall transfer the following amounts, to remain available until September 30, 2030:
“(A) To the Secretary—

“(i) $250,000,000 to carry out the program under subsection (b);

“(ii) $775,000,000 to provide grants under subsection (c)(3);

“(iii) $2,000,000,000 to provide grants under subsection (c)(4);

“(iv) $1,500,000,000 to provide grants under subsection (c)(5); and

“(v) $150,000,000 to carry out the program under subsection (d).

“(B) To the Secretary of Energy, $30,000,000 to conduct research and development activities in cooperation with the Interstate Oil and Gas Compact Commission to assist the Federal land management agencies, States, and Indian Tribes in—

“(i) identifying and characterizing undocumented orphaned wells; and

“(ii) mitigating the environmental risks of undocumented orphaned wells.

“(C) To the Interstate Oil and Gas Compact Commission, $2,000,000 to carry out this section.
“(2) RECEIPT AND ACCEPTANCE.—The Secretary, the Secretary of Energy, and the Interstate Oil and Gas Compact Commission shall be entitled to receive, shall accept, and shall use to carry out this section the funds transferred under subparagraphs (A), (B), and (C), respectively, of paragraph (1), without further appropriation.”.

SEC. 6002. NEPA REVIEW OF CERTAIN PIPELINE PLACEMENT ACTIVITIES.

Section 390 of the Energy Policy Act of 2005 (42 U.S.C. 15942) is amended—

(1) in subsection (b)(4), by striking “pipeline in an approved” and inserting “pipeline, or a field or a field compression or pumping unit associated with a pipeline, in any existing disturbed area so long as the disturbance was authorized and occurred within the 5 years prior to the date of placement of the pipeline, or in an existing or approved”; and

(2) by adding at the end the following:

“(c) EFFECT.—The presumption under subsection (a) shall be considered to be rebutted if the Secretary of the Interior or the Secretary of Agriculture, as applicable, determines that extraordinary circumstances preclude the use of such a categorical exclusion.”.
TITLE VII—ABANDONED MINE LAND RECLAMATION

SEC. 7001. ABANDONED MINE RECLAMATION FUND DIRECT APPROPRIATIONS.

(a) IN GENERAL.—In addition to amounts otherwise made available, there is appropriated, for deposit into the Abandoned Mine Reclamation Fund established by section 401(a) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1231(a)), out of any amounts in the Treasury not otherwise appropriated, $11,293,000,000 for fiscal year 2021, to remain available until expended.

(b) USE OF FUNDS.—

(1) IN GENERAL.—Subject to subsection (f), amounts appropriated under subsection (a) shall be used to provide grants, as expeditiously as practicable but by not later than September 30, 2036, to States and Indian Tribes described in paragraph (2) for abandoned mine land and water reclamation projects under the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.).

(2) ELIGIBLE GRANT RECIPIENTS.—Grants may be made under paragraph (1) to—

(A) States and Indian Tribes that have a State or Tribal program approved under section
405 of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1235); and

(B) States and Indian Tribes that are referred to in section 402(g)(8)(B) of that Act (30 U.S.C. 1232(g)(8)(B)).

(c) ALLOCATION.—Grant amounts under subsection (b)(1) shall be allocated based on the proportion of unreclaimed eligible land and water the State or Indian Tribe has in the inventory maintained under section 403(c) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1233(c)).

(d) TOTAL AMOUNT OF GRANT.—The total amount of grant funding provided under subsection (b)(1) to an eligible Indian Tribe shall be not less than $20,000,000, to the extent that the amount needed for reclamation projects described in this paragraph on the land of the Indian Tribe is not less than $20,000,000.

(e) PRIORITY.—In addition to the priorities described in section 403(a) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1233(a)), in providing grants under this section, priority may also be given to reclamation projects described in subsection (b)(1) that provide employment for former coal mine workers.

(f) RESERVATION.—Of the funds made available by subsection (a), $50,000,000 shall be made available to the
Secretary of the Interior to provide States and Indian Tribes with the financial and technical assistance necessary for the purpose of making amendments to the inventory maintained under section 403(c) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1233(c)).

TITLE VIII—NATURAL RESOURCES-RELATED INFRASTRUCTURE, WILDFIRE MANAGEMENT, AND ECOSYSTEM RESTORATION

SEC. 8001. FOREST SERVICE LEGACY ROAD AND TRAIL REMEDIATION PROGRAM.

Public Law 88–657 (16 U.S.C. 532 et seq.) (commonly known as the “Forest Roads and Trails Act”) is amended by adding at the end the following:

“SEC. 8. FOREST SERVICE LEGACY ROAD AND TRAIL REMEDIATION PROGRAM.

“(a) ESTABLISHMENT.—The Secretary shall establish the Forest Service Legacy Road and Trail Remediation Program (referred to in this section as the ‘Program’).

“(b) ACTIVITIES.—In carrying out the Program, the Secretary shall, taking into account foreseeable changes in weather and hydrology—
“(1) restore passages for fish and other aquatic species by removing, repairing, or replacing unnatu-
ral barriers from those passages;

“(2) decommission unauthorized user-created roads and trails that are not a National Forest Sys-
tem road or a National Forest System trail;

“(3) prepare National Forest System roads for long-term storage, in accordance with subsections (e)(1) and (d), in a manner that—

“(A) prevents motor vehicle use;

“(B) prevents the roads from damaging adjacent resources, including aquatic and wild-
life resources;

“(C) reduces or eliminates the need for road maintenance; and

“(D) preserves the roads for future use;

“(4) decommission National Forest System roads and trails in accordance with subsections (c)(1) and (d);

“(5) relocate National Forest System roads and trails to increase storm resilience; and

“(6) convert National Forest System roads to National Forest System trails.

“(c) PROJECT SELECTION.—

“(1) PROJECT ELIGIBILITY.—
“(A) IN GENERAL.—The Secretary may only fund under the Program a project described in paragraph (3) or (4) of subsection (b) if the Secretary previously and separately—

“(i) solicited public comment for changing the management status of the applicable National Forest System road or trail—

“(I) to close the road or trail to access; and

“(II) to minimize impacts to natural resources; and

“(ii) changed the management status as described in clause (i).

“(B) REQUIREMENT.—Each project carried out under the Program shall be on a National Forest System road or trail, except with respect to—

“(i) a project described in subsection (b)(2); or

“(ii) a project carried out on a watershed for which the Secretary has entered into a cooperative agreement under section 323 of the Department of the Interior and
Related Agencies Appropriations Act, 1999


“(2) Annual selection of projects for funding.—The Secretary shall—

“(A) establish a process for annually selecting projects for funding under the Program, consistent with the requirements of this section;

“(B) solicit and consider public input regionally in the ranking of projects for funding under the Program;

“(C) give priority for funding under the Program to projects that would—

“(i) protect or improve water quality in public drinking water source areas;

“(ii) restore the habitat of a threatened, endangered, or sensitive fish or wildlife species; or

“(iii) maintain future access to the adjacent area for the public, contractors, permittees, or firefighters; and

“(D) publish on the website of the Forest Service—

“(i) the selection process established under subparagraph (A); and
“(ii) a list that includes a description and the proposed outcome of each project funded under the Program in each fiscal year.

“(d) IMPLEMENTATION.—In implementing the Program, the Secretary shall ensure that the system of roads and trails on the applicable unit of the National Forest System—

“(1) is adequate to meet any increasing demands for timber, recreation, and other uses;

“(2) provides for intensive use, protection, development, and management of the land under principles of multiple use and sustained yield of products and services;

“(3) does not damage, degrade, or impair adjacent resources, including aquatic and wildlife resources, to the extent practicable; and

“(4) reflects long-term funding expectations.

“(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $100,000,000 for each fiscal year.

“(f) APPROPRIATIONS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out this section, out of any amounts in
1 the Treasury not otherwise appropriated, $50,000,000 for each of fiscal years 2022 through 2026.”

SEC. 8002. STUDY AND REPORT ON FEASIBILITY OF RE-
VEGETATING RECLAIMED MINE SITES.

(a) In General.—Not later than 1 year after the date of enactment of this Act, the Secretary of the Interior, acting through the Director of the Office of Surface Mining Reclamation and Enforcement, shall conduct, and submit to Congress a report describing the results of, a study on the feasibility of revegetating reclaimed mined sites.

(b) Inclusions.—The report submitted under sub-
section (a) shall include—

(1) recommendations for how a program could be implemented through the Office of Surface Mining Reclamation and Enforcement to revegetate reclaimed mined sites;

(2) identifications of reclaimed mine sites that would be suitable for inclusion in such a program, including sites on land that—

(A) is subject to title IV of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1231 et seq.); and

(B) is not subject to that title;
(3) a description of any barriers to implementation of such a program, including whether the program would potentially interfere with the authorities contained in, or the implementation of, the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.), including the Abandoned Mine Reclamation Fund created by section 401 of that Act (30 U.S.C. 1231) and State reclamation programs under section 405 of that Act (30 U.S.C. 1235); and

(4) a description of the potential for job creation and workforce needs if such a program was implemented.

SEC. 8003. WILDFIRE RISK REDUCTION.

(a) Appropriations.—In addition to amounts otherwise made available, there is appropriated to the Secretary of the Interior and the Secretary of Agriculture, acting through the Chief of the Forest Service, for the activities described in subsection (c), out of any amounts in the Treasury not otherwise appropriated, $3,500,000,000.

(b) Treatment.—Of the 46,820,000 acres of Federal land or land held in trust for an Indian Tribe that have been identified as having a very high wildfire hazard potential, the Secretary of the Interior and the Secretary of Agriculture, acting through the Chief of the Forest Service,
Service, shall, by not later than September 30, 2027, conduct restoration treatments and change the Fire Regime Condition Class of 10,000,000 acres that are located in—

1. the wildland-urban interface; or
2. a public drinking water source area.

(c) Activities.—The amounts made available under subsection (a) shall be expended in the following amounts and for the following activities:

1. $100,000,000 for entering into an agreement with the Director of the National Weather Service to establish and operate a program that makes use of the Geostationary Operational Environmental Satellite Program to rapidly detect and report wildfire starts in all areas in which the Secretary of the Interior or the Secretary of Agriculture has financial responsibility for wildland fire protection and prevention, of which—
   A. the Secretary of the Interior may expend $50,000,000; and
   B. the Secretary of Agriculture may expend $50,000,000.

2. $600,000,000 for the salaries and expenses of Federal wildland firefighters in accordance with subsection (d), of which—
(A) the Secretary of the Interior may expend $120,000,000; and

(B) the Secretary of Agriculture may expend $480,000,000.

(3) $20,000,000 for the Secretary of the Interior to acquire technology and infrastructure for each Type I and Type II incident management team to maintain interoperability with respect to the radio frequencies used by any responding agency.

(4) $30,000,000 for the Secretary of Agriculture to provide financial assistance to States and units of local government to establish and operate Reverse-911 telecommunication systems.

(5) $100,000,000 for the Secretary of the Interior to establish and implement a pilot program to provide to local governments financial assistance for the acquisition of slip-on tanker units to establish fleets of vehicles that can be quickly converted to be operated as fire engines.

(6) $2,000,000 for the Secretary of Agriculture to develop and publish, not later than 180 days after the date of enactment of this Act, and every 5 years thereafter, a map depicting at-risk communities (as defined in section 101 of the Healthy Forests Res-

(7) $100,000,000 for pre-planning fire response workshops that develop Potential Operational Delineations and select potential control locations, of which—

(A) the Secretary of the Interior may expend $50,000,000; and

(B) the Secretary of Agriculture may expend $50,000,000.

(8) $20,000,000 for the Secretary of Agriculture to enter into an agreement with a Southwest Ecological Restoration Institute established under the Southwest Forest Health and Wildfire Prevention Act of 2004 (16 U.S.C. 6701 et seq.)—

(A) to map each hazardous fuel reduction or wildfire prevention treatment undertaken by the Secretary of the Interior or the Secretary of Agriculture;

(B) to map each wildfire that occurs in the United States; and

(C) to publish a report every 5 years showing the extent to which treatments described in subparagraph (A) and previous wildfires affect the boundaries of wildfires, categorized by—
(i) Federal land management agency;

(ii) region of the United States; and

(iii) treatment method.

(9) $20,000,000 for research conducted under the Joint Fire Science Program, of which—

(A) the Secretary of the Interior may expend $10,000,000; and

(B) the Secretary of Agriculture may expend $10,000,000.

(10) $100,000,000 for the Secretary of Agriculture to implement the Collaborative Forest Landscape Restoration Program established under section 4003 of the Omnibus Public Land Management Act of 2009 (16 U.S.C. 7303) in accordance with subsection (e).

(11) $500,000,000 for conducting mechanical thinning and timber harvesting in an ecologically appropriate manner that focuses, to the extent practicable, on small-diameter trees, of which—

(A) the Secretary of the Interior may expend $100,000,000; and

(B) the Secretary of Agriculture may expend $400,000,000.

(12) $500,000,000 for the Secretary of Agriculture to award community wildfire defense grants
to at-risk communities in accordance with subsection (f).

(13) $500,000,000 for implementing prescribed fires and related activities, of which—

(A) the Secretary of the Interior may expend $250,000,000; and

(B) the Secretary of Agriculture may expend $250,000,000.

(14) $500,000,000 for developing or improving potential control locations, in accordance with paragraph (7), including installing fuelbreaks, with a focus on shaded fuelbreaks when ecologically appropriate, of which—

(A) the Secretary of the Interior may expend $250,000,000; and

(B) the Secretary of Agriculture may expend $250,000,000.

(15) $200,000,000 for contracting or employing crews of laborers to modify and remove flammable vegetation on Federal land and use the resulting materials, to the extent practicable, to produce biochar, including through the use of the Civilian Climate Corps established pursuant to Executive Order 14008 (86 Fed. Reg. 7619 (February 1,
relating to tackling the climate crisis at home and abroad), of which—

(A) the Secretary of the Interior may expend $100,000,000; and

(B) the Secretary of Agriculture may expend $100,000,000.

(16) $200,000,000 for post-fire restoration activities that are implemented not later than 3 years after the date that a wildland fire is contained, of which—

(A) the Secretary of the Interior may expend $100,000,000; and

(B) the Secretary of Agriculture may expend $100,000,000.

(17) $8,000,000 for the Secretary of Agriculture—

(A) to provide feedstock to firewood banks; and

(B) to provide financial assistance for the operation of firewood banks.

(d) WILDLAND FIREFIGHTERS.—

(1) IN GENERAL.—Using the amounts made available under subsection (e)(2), not later than 180 days after the date of enactment of this Act, the Secretary of the Interior and the Secretary of Agri-
culture shall coordinate with the Director of the Office of Personnel Management to develop a distinct “wildland fire manager” occupational series.

(2) Hazardous Duty Differential Not Affected.—Section 5545(d)(1) of title 5, United States Code, is amended by striking “except” and all that follows through “and” at the end and inserting the following: “except—

“(A) an employee in an occupational series covering positions for which the primary duties involve the prevention, control, suppression, or management of wildland fires, as determined by the Office; and

“(B) in such other circumstances as the Office may by regulation prescribe; and”.

(3) Current Employees.—Any individual employed as a wildland firefighter on the date on which the occupational series established under paragraph (1) takes effect may elect—

(A) to remain in the occupational series in which the individual is employed; or

(B) to be included in the “wildland fire manager” occupational series established under that paragraph.
(4) PERMANENT EMPLOYEES; INCREASE IN SALARY.—Beginning October 1, 2021, the Secretary of the Interior and the Secretary of Agriculture shall—

   (A) seek to convert not fewer than 1,000 seasonal wildland firefighters to wildland fire managers that—

   (i) are full-time, permanent, year-round Federal employees; and

   (ii) reduce hazardous fuels on Federal land not fewer than 800 hours per year; and

   (B) increase the base salary of a Federal wildland firefighter or wildland fire manager by an amount that is commensurate with an increase of $20,000 per year, if—

   (i) the hourly pay of the Federal employee is lower than the minimum wage of the applicable State; or

   (ii) the position is located in a location where it is difficult to recruit or to retain a wildland firefighter or wildland fire manager.

(e) COLLABORATIVE FOREST LANDSCAPE RESTORATION PROGRAM.—Using the amounts made available
under subsection (c)(10), not later than 180 days after 
the date of enactment of this Act, the Secretary of Agri-
culture shall—

(1) solicit new project proposals under the Col-
laborative Forest Landscape Restoration Program 
established under section 4003 of the Omnibus Pub-
lic Land Management Act of 2009 (16 U.S.C. 7303) 
(referred to in this subsection as the “Program”);

(2) discontinue the funding of any proposal se-
lected for funding under the Program prior to Sep-
tember 30, 2018;

(3) select project proposals for funding under 
the Program in a manner that—

(A) gives priority to a project proposal 
that—

(i) will treat the most acres described 
in subsection (b); and 

(ii) contains the lowest cost per acre 
to be treated;

(B) gives priority to a project proposal 
that is proposed by a collaborative that has suc-
cessfully accomplished treatments, as proposed 
in an earlier proposal funded under the Pro-
gram; and
(C) discontinues funding for a project that
fails to achieve the results included in a project
proposal submitted under paragraph (1) for
more than 2 consecutive years; and

(4) allow funding to be used to cover necessary
planning costs for projects included in project pro-
posals selected for funding under the Program.

(f) COMMUNITY WILDFIRE DEFENSE GRANT PRO-
GRAM.—

(1) ESTABLISHMENT.—Using the amounts
made available under subsection (c)(12), not later
than 180 days after the date of enactment of this
Act, the Secretary of Agriculture shall establish a
program, which shall be separate from the program
established under section 203 of the Robert T. Staff-
ford Disaster Relief and Emergency Assistance Act
(42 U.S.C. 5133), under which the Secretary of Ag-
griculture shall award grants to at-risk communities,
including Indian Tribes—

(A) to develop or revise a community wild-
fire protection plan; and

(B) to carry out projects described in a
community wildfire protection plan that is not
more than 10 years old.
(2) PRIORITY.—In awarding grants under the program described in paragraph (1), the Secretary of Agriculture shall give priority to an at-risk community that is—

(A) in an area identified by the Secretary of Agriculture as having high or very high wildfire hazard potential;

(B) a low-income community; or

(C) a community impacted by a severe disaster.

(3) COMMUNITY WILDFIRE DEFENSE GRANTS.—

(A) GRANT AMOUNTS.—A grant—

(i) awarded under paragraph (1)(A) shall be for not more than $250,000; and

(ii) awarded under paragraph (1)(B) shall be for not more than $10,000,000.

(B) COST-SHARING REQUIREMENT.—The non-Federal share of the cost (including the administrative cost) of carrying out a project using funds from a grant awarded under the program described in paragraph (1) shall be—

(i) not less than 10 percent for a grant awarded under paragraph (1)(A); and
(ii) not less than 25 percent for a
grant awarded under paragraph (1)(B).

(g) **FUNDING LIMITATIONS.**—Section 10 of the Coop-
is amended—

(1) in subsection (b)(3), by striking “rural
areas.” and all that follows through the end of the
paragraph and inserting “any city, town, or unincor-
porated area that has a population of not more than
10,000 inhabitants; and”;

(2) by redesignating subsections (c) through (g)
as subsections (d) thorough (h), respectively; and

(3) by inserting after subsection (b) the fol-
lowing:

“(c) **ELIGIBILITY.**—

“(1) **IN GENERAL.**—Notwithstanding the re-
quirements of section 2A, to be eligible for financial,
technical, or related assistance under any of para-
graphs (2) through (4) of subsection (b), a State
shall seek to improve the submission by the State of
fire data and information to the National Fire Inci-
dent Reporting System pursuant to section 9 of the
Federal Fire Prevention and Control Act of 1974
(15 U.S.C. 2208)."
“(2) Roofing Requirements.—Notwithstanding the requirements of section 2A, the Secretary, a State Forester, or an equivalent State official shall not disburse funds from the National Fire Capacity account or the Rural Fire Capacity account to an area or volunteer fire department that is located in a county or community that has not adopted an ordinance or regulation that requires the construction of new roofs on buildings to adhere to standards that are similar to, or more stringent than—

“(A) the roof construction standards established by the National Fire Protection Association; or

“(B) an applicable model building code established by the International Code Council.

“(3) Assistance for Rural Communities.—

“(A) In General.—The Secretary, a State Forester, or an equivalent State official shall only use funds in the Rural Fire Capacity account to assist in providing apparatus to rural communities with populations of not more than 10,000 inhabitants.
“(B) **Funding.**—The Secretary may implement this paragraph through the use of funds from the Rural Fire Capacity account.”

(h) **Expiration of Funding.**—Any funding made available under this section that is not obligated by the Secretary of the Interior or the Secretary of Agriculture on the date that is 5 years after the date of enactment of this Act shall be returned to the general fund of the Treasury.

**SEC. 8004. ECOSYSTEM RESTORATION.**

(a) ** Appropriations.**—In addition to amounts otherwise made available, there is appropriated to the Secretary of the Interior and the Secretary of Agriculture, acting through the Chief of the Forest Service, for the activities described in subsection (b), out of any amounts in the Treasury not otherwise appropriated, $2,000,000,000.

(b) **Activities.**—The amounts made available under subsection (a) shall be expended in the following amounts and for the following activities:

(1) $200,000,000 for entering into contracts, including stewardship contracts or agreements, each of which is to restore the ecological health on not fewer than 25,000 acres of Federal land, of which—

(A) the Secretary of the Interior may expend $100,000,000; and
(B) the Secretary of Agriculture may expend $100,000,000.

(2) $200,000,000 to provide to States for implementing restoration projects on Federal land pursuant to good neighbor agreements entered into under section 8206 of the Agricultural Act of 2014 (16 U.S.C. 2113a), of which—

(A) the Secretary of the Interior may expend $100,000,000; and

(B) the Secretary of Agriculture may expend $100,000,000.

(3) $500,000,000 for the Secretary of Agriculture to provide financial assistance to facilities that purchase and process byproducts from ecosystem restoration projects in accordance with subsection (c).

(4) $400,000,000 for the Secretary of the Interior to provide to States for implementing voluntary ecosystem restoration projects, including stream restoration projects and pinyon-juniper removal projects, on private or public land, using a distribution formula to be determined by the Secretary of the Interior, in consultation with the Secretary of Agriculture, that requires matching funding from a
State to be eligible to receive funding under this paragraph.

(5) $100,000,000 for the Secretary of Agriculture to award grants to States to establish rental programs for portable skidder bridges to minimize stream bed disturbance on non-Federal land and Federal land.

(6) $200,000,000 for invasive species detection, prevention, and eradication, including conducting research and providing resources to facilitate detection of invasive species at points of entry and awarding grants for eradication of invasive species on non-Federal land and on Federal land, of which—

(A) the Secretary of the Interior may expend $100,000,000; and

(B) the Secretary of Agriculture may expend $100,000,000.

(7) $100,000,000 to restore, prepare, or adapt recreation sites on Federal land that have experienced or may likely experience visitation and use beyond the current carrying capacity of the sites, of which—

(A) the Secretary of the Interior may expend $50,000,000; and
(B) the Secretary of Agriculture may expend $50,000,000.

(8) $200,000,000 to restore native vegetation and mitigate environmental hazards on mined land on Federal and non-Federal land, of which—

(A) the Secretary of the Interior may expend $100,000,000; and

(B) the Secretary of Agriculture may expend $100,000,000.

(9) $100,000,000 for the Secretary of Agriculture, in coordination with the Secretary of the Interior, to establish a collaborative-based, landscape-scale restoration program to restore water quality or fish passage on Federal land in accordance with subsection (d).

(e) SAWMILL INFRASTRUCTURE.—The Secretary of Agriculture, in coordination with the Secretary of the Interior, shall—

(1) develop a ranking system that categorizes units of Federal land as being—

(A) very low priority for ecological restoration involving vegetation removal;

(B) low priority for ecological restoration involving vegetation removal;
(C) medium priority for ecological restoration involving vegetation removal;

(D) high priority for ecological restoration involving vegetation removal; or

(E) very high priority for ecological restoration involving vegetation removal;

(2) determine, for a unit identified under paragraph (1) as being high or very high priority for ecological restoration involving vegetation removal, if—

(A) a sawmill or other wood-processing facility exists in close proximity to the unit; and

(B) the presence of a sawmill or other wood-processing facility would substantially decrease or does substantially decrease the cost of conducting ecological restoration projects involving vegetation removal;

(3) in accordance with any conditions the Secretary of Agriculture determines to be necessary, provide financial assistance, including a low-interest loan or a loan guarantee, to an entity seeking to establish or improve a sawmill or other wood-processing facility in close proximity to a unit of Federal land that has been identified under paragraph (1) as high or very high priority for ecological restoration, if the presence of a sawmill or other wood-processing
facility would substantially decrease or does substantially decrease the cost of conducting ecological restoration projects involving vegetation removal on the unit of Federal land, as determined under paragraph (2)(B); and

(4) to the extent practicable, when allocating funding to units of Federal land for ecological restoration projects involving vegetation removal, give priority to a unit of Federal land that—

(A) has been identified under paragraph (1) as being high or very high priority for ecological restoration involving vegetation removal; and

(B) has a sawmill or other wood-processing facility—

(i) that, as determined under paragraph (2)—

(I) exists in close proximity to the unit; and

(II) does substantially decrease the cost of conducting ecological restoration projects involving vegetation removal on the unit; or

(ii) that has received financial assistance under paragraph (3).
(d) COLLABORATIVE-BASED, AQUATIC-FOCUSED, LANDSCAPE-SCALE RESTORATION PROGRAM.—Using the amounts made available under subsection (b)(9), not later than 180 days after the date of enactment of this Act, the Secretary of Agriculture shall—

(1) solicit collaboratively developed proposals that—

(A) are for 5-year projects to restore fish passage or water quality on Federal land, including land held in trust for an Indian Tribe;

(B) contain proposed accomplishments and proposed non-Federal funding; and

(C) request not more than $5,000,000 in funding made available under subsection (b)(9); and

(2) select project proposals for funding in a manner that—

(A) gives priority to a project proposal that would result in the most miles of streams being restored for the lowest amount of Federal funding; and

(B) discontinues funding for a project that fails to achieve the results included in a proposal submitted under paragraph (1) for more than 2 consecutive years.
(e) REPORT.—The Secretary of Agriculture shall publish a list of—

(1) all of the priority watersheds on National Forest System land;

(2) the condition of each priority watershed on the date of enactment of this Act; and

(3) the condition of each priority watershed on the date that is 5 years after the date of enactment of this Act.

(f) EXPIRATION OF FUNDING.—Any funding made available under this section that is not obligated by the Secretary of the Interior or the Secretary of Agriculture on the date that is 5 years after the date of enactment of this Act shall be returned to the general fund of the Treasury.

TITLE IX—WESTERN WATER INFRASTRUCTURE

SEC. 9001. WESTERN WATER INFRASTRUCTURE.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE PROGRAM OR PROJECT.—The term “eligible program or project” means—

(A) a water storage project authorized by an Act of Congress;

(B) a regional rural water project authorized by an Act of Congress;
(C) a WaterSMART drought resiliency project, water or energy efficiency grant, or cooperative watershed management grant;
(D) a water recycling and reuse project authorized under the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h et seq.); and
(E) a water desalination project.

(2) SECRETARY.—The term “Secretary” means the Secretary of the Interior.

(b) APPROPRIATION.—In addition to amounts otherwise made available, there is appropriated to the Secretary, out of any amounts in the Treasury not otherwise appropriated, $5,000,000,000 for the period of fiscal years 2022 through 2026, to be allocated among eligible programs and projects, as determined by the Secretary, consistent with the cost share and authorization requirements of the applicable eligible program or project.

TITLE X—ENERGY ACT OF 2020
FUNDING
SEC. 10001. ENERGY STORAGE DEMONSTRATION PROJECTS.

(a) Energy Storage Demonstration Projects;

Pilot Grant Program.—In addition to amounts otherwise made available, there is appropriated to the Secretary
1 to carry out activities under section 3201(c) of the Energy
2 Act of 2020 (42 U.S.C. 17232(e)), out of any amounts
3 in the Treasury not otherwise appropriated, $71,000,000
4 for each of fiscal years 2021 through 2025.
5
6 (b) Long-Duration Demonstration Initiative
7 and Joint Program.—In addition to amounts otherwise
8 made available, there is appropriated to the Secretary to
9 carry out activities under section 3201(d) of the Energy
10 Act of 2020 (42 U.S.C. 17232(d)), out of any amounts
11 in the Treasury not otherwise appropriated, $30,000,000
12 for each of fiscal years 2021 through 2025.

SEC. 10002. Advanced Reactor Demonstration Program.

1 In addition to amounts otherwise made available,
2 there are appropriated to the Secretary to carry out activi-
3 ties under section 959A of the Energy Policy Act of 2005
4 (42 U.S.C. 16279a), out of any amounts in the Treasury
5 not otherwise appropriated—

6 (1) $155,000,000 for fiscal year 2021;
7 (2) $405,000,000 for fiscal year 2022;
8 (3) $420,000,000 for fiscal year 2023;
9 (4) $455,000,000 for fiscal year 2024; and
10 (5) $455,000,000 for fiscal year 2025.
SEC. 10003. MINERAL SECURITY PROJECTS.

(a) National Geological and Geophysical Data Preservation Program.—In addition to amounts otherwise made available, there is appropriated to the Secretary of the Interior to carry out activities under section 351 of the Energy Policy Act of 2005 (42 U.S.C. 15908), out of any amounts in the Treasury not otherwise appropriated—

(1) $3,668,000 for fiscal year 2021; and

(2) $5,000,000 for each of fiscal years 2022 through 2025.

(b) Rare Earth Mineral Security.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under section 7001(a) of the Energy Act of 2020 (42 U.S.C. 13344(a)), out of any amounts in the Treasury not otherwise appropriated, $23,000,000 for each of fiscal years 2021 through 2025.

(c) Critical Material Innovation, Efficiency, and Alternatives.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under section 7002(g) of the Energy Act of 2020 (30 U.S.C. 1606(g)), out of any amounts in the Treasury not otherwise appropriated—

(1) $125,000,000 for fiscal year 2021;

(2) $105,000,000 for fiscal year 2022;
(3) $100,000,000 for fiscal year 2023; and
(4) $135,000,000 for each of fiscal years 2024 and 2025.

(d) Critical Material Supply Chain Research Facility.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under section 7002(h) of the Energy Act of 2020 (30 U.S.C. 1606(h)), out of any amounts in the Treasury not otherwise appropriated—

(1) $10,000,000 for fiscal year 2021;
(2) $30,000,000 for fiscal year 2022; and
(3) $35,000,000 for fiscal year 2023.

SEC. 10004. CARBON CAPTURE DEMONSTRATION AND PILOT PROGRAMS.

(a) Carbon Capture Large-Scale Pilot Projects.—In addition to amounts otherwise made available, there are appropriated to the Secretary to carry out activities under section 962(b)(2)(B) of the Energy Policy Act of 2005 (42 U.S.C. 16292(b)(2)(B)), out of any amounts in the Treasury not otherwise appropriated—

(1) $162,000,000 for fiscal year 2021;
(2) $225,000,000 for fiscal year 2022;
(3) $200,000,000 for fiscal year 2023;
(4) $200,000,000 for fiscal year 2024; and
(5) $150,000,000 for fiscal year 2025.
(b) Carbon Capture Demonstration Projects Program.—In addition to amounts otherwise made available, there are appropriated to the Secretary to carry out activities under section 962(b)(2)(C) of the Energy Policy Act of 2005 (42 U.S.C. 16292(b)(2)(C)), out of any amounts in the Treasury not otherwise appropriated—

1. $437,000,000 for fiscal year 2021;
2. $500,000,000 for each of fiscal years 2022 through 2024; and
3. $600,000,000 for fiscal year 2025.

SEC. 10005. DIRECT AIR CAPTURE TECHNOLOGIES PRIZE COMPETITIONS.

(a) Precommercial.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under section 969D(e)(2)(A) of the Energy Policy Act of 2005 (42 U.S.C. 16298d(e)(2)(A)), out of any amounts in the Treasury not otherwise appropriated, $15,000,000 for fiscal year 2021.

(b) Commercial.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under section 969D(e)(2)(B) of the Energy Policy Act of 2005 (42 U.S.C. 16298d(e)(2)(B)), out of any amounts in the Treasury not otherwise appropriated, $100,000,000 for fiscal year 2021.
SEC. 10006. WATER POWER PROJECTS.

(a) HYDROPOWER AND MARINE ENERGY.—In addition to amounts otherwise made available, there are appropriated to the Secretary, out of any amounts in the Treasury not otherwise appropriated—

(1) to carry out activities under section 634 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17213), $36,000,000 for the period of fiscal years 2021 through 2025; and

(2) to carry out activities under section 635 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17214), $70,400,000 for the period of fiscal years 2021 through 2025.

(b) NATIONAL MARINE ENERGY CENTERS.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under section 636 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17215), out of any amounts in the Treasury not otherwise appropriated, $10,000,000 for each of fiscal years 2022 through 2025.

(c) HYDROELECTRIC INCENTIVES.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under sections 242 and 243 of the Energy Policy Act of 2005 (42 U.S.C. 15881, 15882), out of any amounts in the Treasury not
otherwise appropriated, $100,000,000 for the period of fiscal years 2021 through 2025.

SEC. 10007. RENEWABLE ENERGY PROJECTS.

(a) GEOTHERMAL ENERGY.—In addition to amounts otherwise made available, there is appropriated to the Secretary to carry out activities under section 615 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17194), out of any amounts in the Treasury not otherwise appropriated, $84,000,000 for the period of fiscal years 2022 through 2025.

(b) WIND ENERGY.—In addition to amounts otherwise made available, there are appropriated to the Secretary, out of any amounts in the Treasury not otherwise appropriated—

(1) to carry out activities under section 3003(b)(2) of the Energy Act of 2020 (42 U.S.C. 16237(b)(2)), $60,000,000 for the period of fiscal years 2022 through 2025; and

(2) to carry out activities under section 3003(b)(4) of the Energy Act of 2020 (42 U.S.C. 16237(b)(4)), $40,000,000 for the period of fiscal years 2022 through 2025.

(e) SOLAR ENERGY.—In addition to amounts otherwise made available, there are appropriated to the Sec-
retary, out of any amounts in the Treasury not otherwise appropriated—

(1) to carry out activities under section 3004(b)(2) of the Energy Act of 2020 (42 U.S.C. 16238(b)(2)), $40,000,000 for the period of fiscal years 2022 through 2025;

(2) to carry out activities under section 3004(b)(3) of the Energy Act of 2020 (42 U.S.C. 16238(b)(3)), $20,000,000 for the period of fiscal years 2022 through 2025; and

(3) to carry out activities under section 3004(b)(4) of the Energy Act of 2020 (42 U.S.C. 16238(b)(4)), $20,000,000 for the period of fiscal years 2022 through 2025.

SEC. 10008. INDUSTRIAL EMISSIONS DEMONSTRATION PROJECTS.

In addition to amounts otherwise made available, there are appropriated to the Secretary to carry out activities under section 454(d)(3) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17113(d)(3)), out of any amounts in the Treasury not otherwise appropriated—

(1) $20,000,000 for fiscal year 2022;

(2) $30,000,000 for fiscal year 2023; and
(3) $50,000,000 for each of fiscal years 2024 and 2025.

SEC. 10009. AVAILABILITY OF AMOUNTS.

Amounts made available by this title for fiscal year 2021 shall remain available until expended.

TITLE XI—WAGE RATE REQUIREMENTS

SEC. 11001. WAGE RATE REQUIREMENTS.

(a) DAVIS-BACON.—Any laborer or mechanic employed by any contractor or subcontractor in the performance of work on a project funded under this Act or an amendment made by this Act shall be paid wages at rates not less than those prevailing on similar projects in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly referred to as the “Davis-Bacon Act”).

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