

KEY ADVANCED ENERGY PROVISIONS

IN THE INFRASTRUCTURE AND JOBS ACT

By Advanced Energy Economy

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ABOUT ADVANCED ENERGY ECONOMY

Advanced Energy Economy (AEE) is a national association of businesses that are making the energy we use secure, clean, and affordable. We work to accelerate the move to 100% clean energy and electrified transportation in the U.S. Advanced energy encompasses a broad range of products and services that constitute the best available technologies for meeting energy needs today and tomorrow. These include energy efficiency, demand response, energy storage, solar, wind, hydro, nuclear, electric vehicles, biofuels, and smart grid. AEE represents more than 100 companies in the \$238 billion U.S. advanced energy industry, which employs 3.2 million U.S. workers.



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ADVANCED ENERGY PROVISIONS IN THE INFRASTRUCTURE INVESTMENT AND JOBS ACT

Overview

With the passage of the Infrastructure Investment and Jobs Act (IIJA), funds will be available to state, local, and tribal governments for a variety of advanced energy infrastructure. The bill provides funding to address some of state and local policymakers' top energy priorities, such as ensuring a reliable electric grid, lowering energy bills, and supporting advanced energy jobs. This document outlines key provisions in the IIJA pertaining specifically to advanced energy technologies.

GRID INFRASTRUCTURE AND RESILIENCY

Reliability and Resiliency

- Establishes a \$5 billion program to reduce the likelihood of "disruptive events," defined as "an event in which operations of the electric grid are disrupted, preventively shut off, or cannot operate safely due to extreme weather, wildfire, or a natural disaster." (Section 40101)
- Establishes a \$5 billion program to demonstrate innovative approaches to transmission, storage, and distribution infrastructure that enhance resilience, or new approaches to regional grid resilience. (Section 40103)

Demand Response

- Creates a new requirement under PURPA 111(d) to "promote the use of demand-response and demand

flexibility practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand." (Section 40104)

Transmission

- Amends section 216 of the Federal Power Act, relating to the designation of National Interest Electric Transmission Corridors. (Section 40105)
- Creates a new requirement under PURPA 111(d) to "promote the use of demand-response and demand flexibility practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand." (Section 40104)
- Adds transmission and distribution planning to the list of mandatory features to be included in state energy conservation plans as part of the State Energy Program. (Section 40109)



Smart Grid

- ⦿ Provides \$3 billion for the Smart Grid Investment Matching Grant Program. (Section 40107)

Energy Storage

- ⦿ Requires a study of codes and standards for energy storage systems. (Section 40111)
- ⦿ Authorizes a demonstration project of “second-life applications” of EV batteries for grid storage. (Section 40112)

ELECTRIFIED TRANSPORTATION

Charging Infrastructure

- ⦿ Provides \$2.5 billion for grants for “alternative fueling” infrastructure, including EV charging, hydrogen, propane, and natural gas. (Section 11401)
- ⦿ Establishes a \$5 billion grant program for a “National Electric Vehicle Formula Program” that provides funding to states for deploying EV charging infrastructure. (Division J, Title VIII)
- ⦿ Allows for highway funding to be spent on projects that will reduce transportation emissions, including installation of EV charging along freight corridors. (Section 11403)
- ⦿ Creates a new requirement under PURPA 111(d) to “consider measures to promote greater electrification of the transportation sector, including the establishment of rates that promote affordable and equitable electric vehicle

charging options while improving the customer experience and accelerate third-party investment in electric vehicle charging for light-, medium-, and heavy-duty vehicles to recover the marginal costs of charging electric vehicles.” (Section 40431)

School Buses

- ⦿ Establishes a \$5 billion grant and rebate program for the replacement of existing buses with “clean buses” (defined as buses that reduces emissions and is operated at least in part by an alternative fuel) and zero-emission buses, with 50% of the funds reserved for zero-emission and 50% for clean and zero-emission. Awards can be for 100% of costs. (Section 71101)

Transit Buses

- ⦿ Grants provided under the Federal Transit Administration’s “Bus and Bus Facilities” program should prioritize low- or no-emission buses and require recipients to submit a zero-emission fleet transition plan. (Section 30018)

Other Electrification Measures

- ⦿ Provides \$250 million in grants to reduce emissions at ports, including port electrification. (Section 11402)
- ⦿ Establishes an EV working group to “make recommendations regarding the development, adoption, and integration of light-, medium-, and heavy-duty electric vehicles into the transportation and energy systems of the United States.” (Section 25006)



- Adds transportation electrification to the list of mandatory features to be included in state energy conservation plans as part of the State Energy Program. (Section 40109)
- Medium- and heavy-duty vehicles are added to the Advanced Technology Vehicle Manufacturing Program. (Section 40401)

ENERGY EFFICIENCY

Assistance to State and Local Governments

- Provides \$500 million for the State Energy Program. (Section 40109)
- Establishes a \$250 million Energy Efficiency Revolving Loan Fund Capitalization Grant Program to provide grants to states that can be awarded to eligible entities (both commercial and residential) to conduct energy audits and make recommendations. (Section 40502)
- Provides \$550 million for the Energy Efficiency and Conservation Block Grant Program. (Section 40552)

Weatherization of Homes and Schools

- Provides \$500 million in grant funding to make energy efficiency and renewable energy improvements in public schools. (Section 40541)
- Provides \$3.5 billion for the Weatherization Assistance Program. (Section 40551)

Industrial Efficiency

- Provides \$150 million for Industrial Research and Assessment Centers. (Section 40521)

- Provides \$20 million for rebates for energy efficient products. (Section 40555)

Efficiency Workforce Training

- Provides \$40 million for the Energy Auditor Training Grant Program. (Section 40503)
- Provides \$10 million for Building, Training, and Assessment Centers. (Section 40512)
- Provides \$10 million in grants for Career Skills Training. (Section 40513)

Other Efficiency Programs

- Provides \$225 million in grants to implement updated building energy codes. (Section 40511)
- Provides \$50 million in grants for nonprofit organizations to make energy efficiency improvements. (Section 40542)

ADVANCED ENERGY MANUFACTURING AND RECYCLING

Critical Minerals

- Provides \$140 million for a Rare Earth Elements Demonstration Facility. (Section 40205)
- Provides \$75 million for the Critical Material Supply Chain Research Facility. (Section 40206)
- Provides \$400 million for critical minerals mining and recycling research. (Section 40210)
- Amends the DOE Loan Program to add domestic production of critical minerals



as an authorized use of funds. (Section 40401)

Battery Materials, Manufacturing, and Recycling

- Provides \$3 billion for battery material processing and \$3 billion for battery manufacturing and recycling. (Section 40207)
- Provides \$200 million for the Electric Drive Vehicle Battery Recycling and Second-Life Applications Program. (Section 40208)

Advanced Energy Manufacturing

- Provides \$750 million in grant funding to support advanced energy manufacturing facilities or reduce emissions at manufacturing facilities, provided the facility receiving support is located in a census tract with a recent coal mine or coal plant closure. (Section 40209)
- Medium- and heavy-duty vehicles are added to the Advanced Technology Vehicle Manufacturing Program. (Section 40401)

Workforce

- Creates a 21st Century Energy Workforce Advisory Board (Section 40211)

ADVANCED ENERGY R&D AND DEMONSTRATION PROGRAMS

- Provides \$21.46 billion for the Office of Clean Energy Demonstrations, with

funding specifically allocated to advanced nuclear reactors, carbon capture, industrial emissions, regional clean hydrogen hubs, energy storage, long-duration storage, electric grid resiliency, projects on former mine land, and rural energy projects. (Section 41201; Division J, Title III)

- In addition to the demonstration funding outlined above, the bill provides additional funding for certain technologies, including:
 - \$6.58 billion for carbon utilization, carbon capture, carbon storage, and direct air capture. (Sections 40302, 40303, 40305, 40308, 41005)
 - \$1.5 billion for “clean hydrogen”, defined as hydrogen produced from any resource that has a carbon intensity equal to or less than 2 kilograms of carbon dioxide-equivalent. (Sections 40312-40314)
- Provides \$10 million for a demonstration of a “pumped storage hydropower project to facilitate the long-duration storage of intermittent renewable electricity.” (Section 40334)

OTHER ITEMS OF NOTE

Davis-Bacon

- All projects funded under Division D of the bill (energy Infrastructure Act, Sections 40001-41202 are subject to prevailing wage.

Build America, Buy America

- Includes a provision that requires Federally-funded infrastructure projects to use iron, steel, manufactured products, and/or construction materials



produced in the United States.
“Infrastructure” is defined to include transportation, water, utilities, broadband, electrical transmission, and buildings. (Section 70901 *et seq.*)

Nuclear Plant Support

- ⦿ Creates a \$6 billion “Civil Nuclear Credit Program” to provide funding to nuclear plants that are projected to cease operations due to economic factors (Section 40323)

Carbon Capture Financing

- ⦿ Allows businesses to use private activity bonds (PABs) issued by local and state governments to finance carbon capture projects (Section 80402)

Cyber and Energy Security

- ⦿ Provides \$250 million for the Cybersecurity for the Energy Sector Research, Development, and Demonstration Program. (Section 40123)
- ⦿ Provides \$50 million for the Energy Sector Operational Support for Cyberresilience Program. (Section 40125)

