



Infrastructure Investment and Jobs Act
(As passed by the U.S. Senate August 10, 2021)
Provisions of Interest to NASEO Members

On August 20, 2021, the U.S. Senate passed the [Infrastructure Investment and Jobs Act](#) often referred to as the bipartisan infrastructure bill. As has been reported by NASEO, while the bill has not yet passed the U.S. House of Representatives, we anticipate that it will be passed before the end of September and would then be sent to the President for his signature.

Because of the historic size and scope of this bill, we strongly encourage State Energy Offices to become familiar with provisions of interest and to begin considering the implications and opportunities for your state. NASEO will hold regional, committee, and national calls to continue to inform states, and will hold “deep dive” discussions at the NASEO Annual Meeting in Portland, Maine this October. We are also engaging the U.S. Department of Energy to aid in navigating the implementation of these provisions.

Your input and questions are important to our elevating the needs of the states related to this bill, and your suggestions for how NASEO can best assist your offices are valuable. The bill is complex, and we have attempted to convey the provisions below accurately. However, we encourage you to also consult the text of the bill for more details and forward any questions to NASEO.

Summary of Key Energy Provisions

The following summary is organized by topical area, and not in the order the provisions appear in the bill. Each provision below includes Section numbers from the bill so that you are able to consult the bill directly for more details.

1. U.S. State Energy Program Related Provisions

- U.S. State Energy Program (SEP) - \$500 million for FY22-FY26 (Section 40109)
 - Via formula to State Energy Offices for any eligible SEP activity, to be spent over five years, with no match required.
 - Adds mandatory electric transmission and distribution planning to SEP and strengthens transportation and alternative fuel planning SEP options
- State Energy Conservation Plans to include demand response (Section 40104)
- State Energy Security Plans (Section 366, Section 40108)
 - Strengthens already required plans and adds governor letter
- Energy Efficiency Revolving Loan Fund Capitalization Grant Program (INSULATE) - \$250 million for FY22 to states (Section 40502)

- Would establish a revolving loan fund within SEP with capitalization grants to State Energy Offices for commercial and residential energy efficiency loan fund and audits
- 40% of funds distributed via SEP formula to states; 60% of the funds allocated to the 15 states with highest per-capita residential and commercial sector energy consumption or the highest annual per capita energy-related carbon emissions.
- Energy Auditors Training Grant Program – \$40 million for FY22-FY26 (Section 40503)
 - Establishes an “SEP Competitive” for auditor training assistance
 - \$40 million total, maximum of \$2 million per state. FY22- FY26

2. Weatherization Assistance Program - \$3.5 billion (Section 40551)

3. Low Income Home Energy Assistance Program - \$500 million (Title VII)

4. Energy Efficiency and Conservation Block Grant Program (EECBG) - \$550 million (Section 40552)

- 28% (approximately \$150 million) to State Energy Offices (via EECBG formula)
- Modified the financing language in the underlying statute to make it easier to conduct financing programs, in an attempt to replicate the SEP financing language in 42 USC 6322(d)(5)

5. Energy Security

- Strengthens already required State Energy Security Plans (also known as energy assurance plans) and adds governor letter requirement (Section 40108) (also see SEP Section 40109)
- Enhancing grid security through public-private partnerships – Voluntary program for regional electric organization, utilities, and states to utilize maturity models and other tools to assess the physical and cyber security of the electric grid (Section 40121)
- Energy Cyber Sense program – Voluntary program to test the cybersecurity of technologies in the energy sector (Section 40122)
- Study of performance-based rate treatment for cybersecurity technologies involving interstate power (Section 40123)
- Rural and municipal utility advanced cybersecurity grant and technical assistance program – Creates a cybersecurity deployment, detection and response grant and technical assistance program with eligible entities including states, municipal governments, rural utilities and others (\$250 million from FY’22-26) (Section 40124)
- Enhanced grid security – DOE shall consult with states, tribes, energy sector participants to develop an advanced cybersecurity technologies and pilot projects (\$250 million from FY’22-26). Expand utility participation in the E-ISAC and provide technical assistance to small electric utilities (\$50 million from Fy’22-26) (Section 40125)

6. Electric Grid Related Provisions

- Collaborative Transmission Siting – Mandatory State Energy Office requirement via SEP to conduct electric transmission and distribution planning (among the conditions for \$500 million in funding), including feasibility studies and outreach to stakeholders (Section 40109)
- Siting of Interstate Electric Transmission Facilities (Section 40105)
 - States to issue reports on transmission capacity constraints and congestion. When designating National Interest Electric Transmission Corridors DOE is required to consider

lower cost. FERC can issue permit in certain circumstances even if state commission had denied siting application (state PUC authority is limited on transmission siting)

- Transmission Facilitation Program and Fund - \$50 million FY22-FY26 (Section 40106)
 - \$10 million for each fiscal year
 - Also creates \$2.5 billion revolving loan fund that allows DOE to serve as an “anchor tenant” for a new transmission line or an upgrade of an existing line
- Deployment of Technologies for Grid Flexibility - \$3 billion (Section 40107)
 - Amends Energy Independence and Security Act of 2007 to include Smart Grid investments
 - Authorizes \$3 billion for the Smart Grid Investment Matching Grant Program
- Grid Infrastructure, Resilience, and Reliability - \$5 billion for FY22-FY26 (Section 40101).
 - Directs DOE to establish a grant program to support activities to reduce the likelihood, consequences of, and impacts to the electric grid due to extreme weather, wildfire, and natural disaster.
 - Up to 50% of the total funding (\$2.5 billion) going via formula determined by the Secretary (not via SEP) to states (not defined)
 - States and tribes need to provide a 15 percent match and the eligible entity will need to provide a 100 percent match. The only exemption is if the eligible entity sells not more than 4 million MW/h of electricity in a year; for those entities the match is 1/3rd of the amount of the grant.
 - States and tribes will have to submit a plan to describe the criteria and methods used to award grants to eligible entities and also the proposed funding distribution and recipients of the grants by the states and tribes. Grants are determined by formula determined by Secretary based on total population, total area, areas with low ratio of electricity customers to power lines, and probability of events, among other factors. Priority to projects which will have the greatest community benefits (rural and urban).
- Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency - \$5 billion for FY22-FY26 (Section 40103)
 - Program for states, tribes, PUCs and local governments for transmission, storage, and distribution hardening and regional grid resilience. Requires match.
- Energy Improvement in Rural or Remote Areas, and Energy Infrastructure Resilience Framework - \$1 billion for FY22-FY26 (Section 40103)
 - Funding for energy improvements for rural areas
 - Will create common analytical frameworks, tools, metrics, and data to assess the resilience, reliability, safety, and security of U.S. energy infrastructure
- Codes and Standards for Energy Storage (Section 40111)
 - Secretary to issue study no later than 18 months after enactment on barriers, foster collaboration and increase conformity across sectors; identify existing codes and standards; identify needed revisions or enhancements of codes and receive formal input from stakeholders on existing and new/revised codes
- Demonstration of EV Battery Second-Life Applications for Grid Services (Section 40112)
 - Directs Secretary to establish a demonstration project for second-life applications of EV batteries as aggregated energy storage installations to provide services to the electric grid

7. Buildings Related Provisions

- Building energy codes technical assistance and training - \$225 million for FY22-FY26 (Section 40511)
 - To be awarded by DOE to a variety of state (State Energy Offices and/or building code agencies), local, non-profit and other partners. Assistance can be used to address implementation needs in rural, suburban and urban areas. Includes related topics code updates, addition to or alteration of existing buildings, cost effective, high-performance and net zero energy buildings, improving resilience, health and safety, water savings and environmental impacts, and the economic impact of energy codes.
- Building, training and assessment centers – \$10 million for FY22 (Sec. 40512)
 - DOE to provide grants to institutions of higher learning to establish building training and assessment centers to educate and train building technicians and engineers on implementing modern building technologies
 - Requires 50% cost share for career skills training
- Grants for energy efficiency improvements and renewable energy improvements at public school facilities - \$500 million for FY22-FY26 (Section 40541)
 - Grants to be awarded by DOE for energy efficiency, renewable energy, and alternative fueled vehicle upgrades and improvements at public schools
- Energy efficiency materials pilot program - \$50 million for FY22-FY26
 - Establishes pilot program to award grants to provide nonprofit buildings with energy efficient materials
- See also – Section 40107 Deployment of Technologies for Grid Flexibility

8. Transportation and Electric Vehicle Infrastructure Provisions

- Federal Joint Office of Energy and Transportation (Division J, Appropriations)
 - Will convene an Electric Vehicle Working Group to provide recommendations to the administration, to include a representative of the organization representing State Energy Offices
- Grants for Charging and Fueling Infrastructure - \$2.5 billion FY22-FY26(Section 11401)
 - Grants to state, local, and public entities to install alternative fuel infrastructure along FHWA-designated Alternative Fuel Corridors
 - 50% of program funds will be dedicated to “Community Grants” for publicly-accessible alternative fuel charging/fueling projects outside of Alternative Fuel Corridors, with priority to rural, LMI and underserved communities, and multi-unit dwellings
- National EV Formula Program - \$5 billion for FY22-FY26 (Division J, Appropriations)
 - Via formula to state Departments of Transportation to support EV chargers along federally-designated Alternative Fuel Corridors
- DOE Battery Recycling Grants to States (Section 40207)
 - 50% cost share requirement
 - \$60 million for battery recycling research, development, and demonstration programs (states eligible)
 - \$50 million for state and local programs
- Expands EIA data collection to include electric vehicle integration with electric grids (Section 40414)
- Requires states to consider measures to promote greater transportation electrification, including affordability/equity of charging options, improvement of customer experience,

- third-party investment in EV charging, and utility cost recovery models (Section 40431—applies to all state regulatory authorities and nonregulated utilities)
- Replacement of Existing School Buses with Clean and Zero Emission School Buses – \$5 billion (Division J, Appropriations)
- Electric or Low Emission Ferry Pilot Program - \$250 million (Section 71102)
- Reduction of Truck Emissions at Port Facilities (Section 11402) - \$250 million
- Carbon Reduction Program (Section 11403)
 - To include efforts to reduce impacts of freight movement and projects to deploy alternative fuel vehicles and reduce emissions at ports
- Fleet Transition Plan (Section 30018)
 - Requires grant applicants to submit zero emission transition plan addressing workforce transition, costs, and other indicators
- Study of impact of “cradle to grave” impacts of EVs (Section 40435)
- Study on impact of forced labor in China on the EV supply chain (Section 40436)
- Port Infrastructure Development Program - \$2.25 billion (Division J, Appropriations)
 - Includes funding for projects that improve resilience of ports and port electrification, such as EV charging and hydrogen fueling infrastructure for drayage, trucks, and locomotives at ports, and related grid upgrades

9. Manufacturing Efficiency

- Sustainable Manufacturing Initiative (Section 376, Section 40522)
 - DOE EERE will provide onsite technical assessments for energy, water, and pollution prevention. Implementation of recommendations through AMO, BTO, FEMP, and NIST. Also includes R&D provision.
- Expansion of Industrial Assessment Centers (IACs) (Section 457, Section 40521)
 - \$150 million for IACs, including expansion and workforce training support (50% cost share for certain internships and apprenticeships)
 - \$400 million grant program for businesses to implement IAC recommendations, no greater than \$300,000 per grant with a 50% match requirement.
- Directs DOE and labs to increase access to smart manufacturing (supercomputing, industrial research and assessment centers) to small and medium size manufacturers (Secs. 40532 and 40533)
- Competitive funding for states to establish smart manufacturing technology implementation programs - \$50 million FY22-FY26 (Sec. 40534).
 - Up to \$2 million per award, 30% match.

10. Clean Energy Supply Chains

- Battery Processing and Manufacturing (Section 40207)
- Battery recycling RD&D - \$60 million FY22-FY26 (Section 40207)
 - Includes state research agencies as well as universities, companies, industry, NGOs eligibility
- State and local programs for battery collection, recycling, reprocessing - \$50 million FY22-FY26 (Section 40207)
 - 50% cost share
- Task force on producer responsibility—to include states and municipalities (Section 40207)

11. Solar

- Solar Energy Technologies on Mine Lands (Sec. 40341)

12. Hydrogen R&D

- Clean Hydrogen R&D Program in consultation with private sector (Section 40313)
- Additional Clean Hydrogen Programs (Section 40314) amends EPACT 2005 to add:
 - Regional Clean Hydrogen Hubs - \$8 billion for at least 4 hubs to demonstrate clean hydrogen production, processing, delivery, storage, and end-uses (EPACT Section 813)
 - Clean Hydrogen Manufacturing Initiative - \$500 million RD&D grants for manufacturing and recycling clean hydrogen-related technologies (EPACT Section 815)
 - Clean Hydrogen Electrolysis Program - \$1 billion RD&D, commercialization, and deployment program to advance electrolyzers and related components and technologies (EPACT Section 816)

13. Hydropower

- Hydroelectric production incentives - \$125 million for FY22 (Section 40331)
- Hydroelectric efficiency improvement incentives - \$75 million for FY22 (Section 40332)
- Pumped Storage Hydropower Wind and Solar Integration and System Reliability Initiative (Section 40334)
 - State Energy Offices are among eligible entities to receive financial assistance to carry out project design, transmission studies, power market assessments, and permitting for a pumped storage hydropower project to facilitate the long-duration storage of intermittent renewable electricity

14. Nuclear Energy Infrastructure

- Funding and technical assistance for siting micro-reactors, small modular, and advanced nuclear reactors (Section 40321)
- Discussion of zero-emission payment credits from states (Section 40323) in assessing economic viability of reactor

15. Carbon Capture, Utilization, Storage, and Transportation Infrastructure

- Carbon Utilization Program – \$310 million (Section 40302)
 - Provides grants over five years to eligible entities, including states and local governments.
 - Grants can be used to procure commercial or industrial products that use or are derived from anthropogenic CO₂ and demonstrate significant net reductions in GHG emissions compared to incumbent technologies, processes and products.
- Carbon Capture Technology Program - \$100 million for FY22-26 (Section 40303)
 - For design, engineering for CO₂ transport infrastructure
- Carbon Dioxide Transportation Infrastructure Finance and Innovation (Section 40304)
 - \$600 million each FY22, FY23; \$300 million each FY24, FY25, FY26
 - Program of federal loans (up to 80% project cost) for CO₂ transport infrastructure
 - Grants to incrementally expand capacity to meet projected future (up to 20 years) demand (up to 80% of cost differential)

- Carbon Storage Validation and Testing - \$2.5 billion (Section 40305) - Program to fund commercial development of new or expanded large scale carbon sequestration and associated infrastructure
- Secure Geologic Storage Permitting - \$50 million for FY22-FY26 in State Grants through EPA (Section 40306)
- Carbon Removal - \$3.5 billion for FY22-FY26 (Section 40308)- DOE to establish program to fund four regional direct air capture hubs (at least two in economically distressed communities with high levels of coal, oil, and natural gas resources)
- Carbon Capture Demonstration and Pilot Programs - \$937 million for large-scale pilot project and \$2.537 billion for demonstration projects for FY '22-'25 (Sec. 41004)
- Direct Air Capture Technologies Prize Competition - \$15 million for precommercial and \$100 million for commercial DAC projects for FY '22 (Sec. 41005)

16. Workforce

- Establishes a 21st Century Energy Workforce Advisory Board (Section 40211) and Jobs Council (Section 40553) with State Energy Office representation from STEAB
- Codifies annual U.S. Energy and Employment Report methodology and contents, including consultation with States as key stakeholders (Section 40553)

17. DOE Loan Program

- Discussion of eligibility of loan guarantees for projects receiving funds from State Energy Financing Institutions (Section 40401) (language developed with NASEO several years ago as a Murkowski/Cantwell proposal)

18. Buy American Sourcing Requirements (Section 70911, Section 70936)