

Massive Bipartisan Infrastructure Bill Includes Billions in Funding and Process Improvements for Energy and Infrastructure

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On November 5, 2021, the U.S. House of Representatives passed by a vote of 228–206 the \$1.2 trillion bipartisan infrastructure bill, the Infrastructure Investment and Jobs Act (“Act”), which contains more than \$550 billion in new federal spending. Thirteen Republicans voted for the bill; six Democrats did not. The U.S. Senate had passed the act on August 10, 2021, by a vote of 69–90. The Act will be sent to the President for his signature.

The House then passed, along party lines, a rule that sets debate parameters on the Build Back Better Act, which paves the way for a House vote on the \$1.75 trillion tax/spend bill – likely before Thanksgiving. Next, the Congressional Budget Office will prepare its “score” of the bill, which some House members insisted occur before they were willing to vote on the Build Back Better Act (which is proceeding via the budget reconciliation process).

The Act will provide billions in support for energy and infrastructure across the commodity spaces and a number of important improvements in the federal permitting process. In this post published in August following passage by the Senate, we offer our take on key portions of the Act that have the greatest potential to impact energy and infrastructure market participants and investors.

On August 10, 2021, the U.S. Senate passed by a vote of 69–30 a sprawling \$1.2 trillion bipartisan infrastructure bill, the Infrastructure Investment and Jobs Act (“Act”), which contains over \$550 billion in new federal spending. If enacted, the Act would provide billions in support for energy and infrastructure across the commodity spaces and a number of important improvements in the federal permitting process. In this

post, we offer our take on key portions of the Act that have the greatest potential to impact energy and infrastructure market participants and investors.

Grid Resilience and Reliability

The Act includes various measures to promote increased investment in resilience of the U.S. electric grid, support the commercialization of certain transmission projects and improve the siting of interstate electric transmission facilities.

- **Grid Resilience Grant Program:** Section 40101 directs the Secretary of Energy (“Secretary”) to establish a grant program to provide dollar-to-dollar matching grants to eligible entities, including grid operators, transmission owners and operators, electricity storage operators, generators and fuel suppliers, to carry out supplemental activities that reduce the risk of power lines causing a wildfire and the likelihood and consequences of disruptive events. The Act authorizes the appropriation of \$5 billion for the period of fiscal years 2022 through 2026 for the grant program.
- **Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency:** Section 40103 requires the Secretary to establish a program, called the “Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency.” The program would provide, on a competitive basis, federal financial assistance to States, Native American tribes, local governmental units and public utility commissions to demonstrate: (1) innovative approaches to transmission, storage and distribution infrastructure to harden and enhance resilience and reliability; and (2) new approaches to enhance regional grid resilience, implemented through states by public and rural electric cooperative entities on a cost-shared basis. For this program, the Act authorizes the appropriation of \$5 billion for the period of fiscal years 2022 through 2026. This section also directs the Secretary to carry out activities to improve in rural or remote areas the resilience, safety, reliability and availability of energy, and environmental protection from adverse impacts of energy generation, and authorizes the appropriation of \$1 billion for federal financial assistance to rural or remote areas for certain enumerated activities that support such objectives.
- **Transmission Facilitation Program:** The Act also would create a novel “Transmission Facilitation Program” that would give the Department of Energy (“DOE”) the authority to effectively act as an anchor tenant on certain transmission projects. Specifically, Section 40106 authorizes the DOE to sign contracts for up to 50% of the capacity of (1) new transmission lines of at least 1,000 megawatts (“MW”) or (2) upgrades to existing transmission lines, or new transmission lines in existing

rights infrastructure corridors, of at least 500 MW. It also establishes parameters under which the Secretary may participate in public-private partnerships. The Act authorizes the Secretary of the Treasury to loan the Secretary an amount up to \$2.5 billion at any given time to carry out the program, and also authorizes the appropriation of \$10 million for each of fiscal years 2022 through 2026.

Interstate Transmission Siting

The Act would substantially expand the siting authority of the DOE and the Federal Energy Regulatory Commission (“FERC”) under Federal Power Act (“FPA”) section 216. Although siting of transmission facilities is generally reserved to the states, FPA section 216 carves out a small role for the DOE and FERC in the siting of interstate transmission facilities in areas the Secretary designates as experiencing electricity transmission constraints or congestion (“national interest electric transmission corridors” or “NIETCs”). The Act would amend the existing process for designating these corridors and permitting transmission lines within designated corridors:

- Designating Transmission Corridors: Section 40105 adds more specific criteria for DOE to follow in designating NIETCs, including that new corridors would enhance the ability of energy facilities to connect to the electric grid, would maximize existing rights-of-way and would avoid, minimize or offset environmental and cultural impacts.
- Permitting Interstate Transmission: Currently section 216 gives FERC “backstop” authority to issue permits for interstate electricity transmission facilities in designated NIETCs. However, that authority can only be exercised if the the state with siting authority has (i) “withheld approval for more than one year” or (ii) “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.” 16 U.S.C. § 824p(b)(1)(C). Section 40105 would, among other things, amend FPA section 216 to revise this framework so FERC would have backstop siting authority where the relevant State commission “has not made a determination” within one year, and adding that FERC would have such authority where the state Commission has denied an application pursuant to applicable law. This is designed to address the problem created by the Fourth Circuit’s holding in *Piedmont Environmental Council v. FERC*, 558 F.3d 304 (4th Cir. 2009). – which held that FERC may only permit transmission facilities in the event that the state has not acted within a year, but may not permit transmission facilities if a state has actually denied the applicant’s request to site transmission facilities.

Carbon Capture, Utilization, Storage and Transportation

The Act includes provisions aimed at facilitating the development of technologies and infrastructure for carbon capture, utilization, and storage (“CCUS”):

- **Transportation:** Section 40304 establishes a Carbon Dioxide Transportation Infrastructure Finance and Innovation program under DOE, which would facilitate private sector investment in carbon transportation infrastructure necessary to deploy CCUS through low-interest loans. These loans would be available to cover up to 80% of eligible project costs, which include the costs of environment permitting, engineering and design, real property acquisition, environmental mitigation, and even legal and technical consultant fees for project financing. In addition, Section 40303 would expand DOE’s Carbon Capture Technology program to include front-end engineering and design for carbon transport infrastructure.
- **Storage:** Section 40305 would expand DOE’s Carbon Storage Validation and Testing program to provide funding for the development of new or expanded commercial large-scale carbon sequestration projects and associated transportation infrastructure. This would include funding for the feasibility, site characterization, permitting and construction of such facilities and infrastructure.
- **Permitting:** Section 40306 authorizes \$5 million for each of fiscal years 2022 to 2026 to be appropriated for the permitting of geologic carbon storage projects both by the Administrator of the Environmental Protection Agency (“EPA”) and an additional \$50 million for states to establish and operate their own Class VI permitting programs for geologic sequestration.
- **Off shore Storage:** Section 40307 would amend the Outer Continental Shelf Lands Act (“OCSLA”) to create a new authority for the Department of the Interior to permit offshore geologic carbon sequestration in sub-seabed geologic formations on the Outer Continental Shelf. The Secretary of the Interior is instructed to promulgate regulations to implement this new authority within a year of the enactment of the Act. It also provides the authority for the Department of the Interior to permit carbon dioxide sequestration on the Outer Continental Shelf.
- **Regional Direct Air Capture Hubs:** Section 40308 directs the Secretary to provide funding for projects that contribute to the development of four regional direct air capture hubs, each with the capacity to capture and sequester and/or utilize at least 1 million metric tons of CO₂ annually. Each direct air capture hub would be a network of direct air capture projects, potential carbon utilization offtakers, transport infrastructure, subsurface resources and sequestration infrastructure, all located within a region. Under this provision, the Secretary would solicit

applications for funding of eligible projects within 180 days of enactment and select eligible projects within three years of the deadline for submitting proposals.

- Funding for Pilot Projects: Section 41004 authorizes approximately \$3.5 billion for fiscal years 2022 through 2025 for Carbon Capture Large-Scale Pilot Projects and Carbon Capture Demonstration Projects authorized by the Energy Act of 2020.

Hydrogen

The Act includes ambitious hydrogen-related provisions, including the creation of a clean hydrogen strategy and investment of billions to lay the foundation for a national hydrogen economy.

Under the Act, “clean hydrogen” is defined as hydrogen produced in compliance with emissions standards to be established by the Secretary, “including production from any fuel source.” To those ends, Section 40315 requires that by no later than 180 days after enactment the Secretary, in consultation with the Administrator of the EPA and taking into account input from stakeholders, develop an initial standard for the carbon intensity of clean hydrogen.

The standard must support clean hydrogen production from fossil fuels with CCUS, hydrogen-carrier fuels (including ethanol and methanol) and renewable energy resources, including biomass, nuclear energy and any other methods the Secretary deems appropriate. The standard also must define the term “clean hydrogen” to mean hydrogen produced with a carbon intensity equal to or less than two kilograms of carbon dioxide-equivalent per kilogram of hydrogen produced and take into consideration technological and economic feasibility.

Section 40313 expands the goals and activities of DOE’s existing hydrogen research and development program. As revised, the goals of the program will be to: (1) advance research and development to demonstrate and commercialize the use of clean hydrogen in the transportation, utility, industrial, commercial and residential sectors; and (2) demonstrate a standard of clean hydrogen production in the transportation, utility, industrial, commercial and residential sectors by 2040. The Act expands the activities to be undertaken under the program, including activities to advance and support the production of clean hydrogen from diverse energy sources; the use of clean hydrogen for commercial, industrial and residential electric power generation; the use of clean hydrogen in industrial applications such as steelmaking and cement; and the use of clean hydrogen as a residential and commercial fuel source.

The Act also directs the Secretary to establish a number of programs and initiatives under Section 40314, including:

- **Regional Hydrogen Hub Program:** A program to support the development of at least four regional clean hydrogen hubs that demonstrably aid the achievement of the clean hydrogen production standard; demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen; and can be developed into a national clean hydrogen network to facilitate a clean hydrogen economy. The Act includes a number of criteria to ensure that the hubs reflect a diversity of feedstock, end-use and geographic location. However, to the maximum extent practicable, at least two of the regional hydrogen hub programs must be located in the regions of the U.S. with the greatest natural gas resources. For the program, the Act authorizes the appropriation of \$8 billion for the period of fiscal years 2022 through 2026.
- **National Clean Hydrogen Strategy and Roadmap:** A technologically and economically feasible national strategy and roadmap to facilitate wide-scale production, processing, delivery, storage and use of clean hydrogen, which must be submitted to Congress within 180 days after enactment.
- **Clean Hydrogen Electrolysis Program:** A demonstration, commercialization, development and deployment program to improve the efficiency, increase the durability and reduce the cost of producing clean hydrogen using electrolyzers to less than \$2 per kilogram of hydrogen by 2026. The Act authorizes the appropriation of \$1 billion for the period of fiscal years 2022 through 2026, to remain available until expended.

Hydropower

The Act proposes to expand a number of existing credits and incentives for hydropower projects, and creates a new grant program to support capital improvements for grid resilience, dam safety upgrades and environmental enhancements at qualified existing hydropower facilities.

- **Hydroelectric Production Credits:** Section 40331 would extend the existing hydropower production tax credit – which currently is only available to existing dams and conduit facilities completed before August 8, 2005 – to any existing dam or conduit facility constructed before the passage of the Act. It also would raise the annual cap on such credits from \$750,000 per calendar year to \$1 million per calendar year. The Act authorizes the appropriation of \$125 million for fiscal year 2022 for such credits, to remain available until expended.

- **Hydropower Efficiency Improvement Incentives:** The existing hydropower efficiency improvement incentive payments for capital improvements that increase the efficiency of a hydropower facility by at least 3% – which are currently capped at 10% of the costs, up to \$750,000 – would be increased under Section 40332. The Act proposes to increase the potential payments to 30% of costs being covered, up to \$5 million, and appropriates \$75 million for fiscal year 2022, to remain available until expended.
- **Incentives for Capital Improvements for Resilience, Dam Safety or Environment:** Section 40333 directs the Secretary to make incentive payments to the owners and operators of certain hydroelectric projects, including FERC-licensed hydroelectric projects, for capital improvements directly related to improving grid resiliency (including managing accumulated reservoir sediments), improving dam safety to ensure acceptable performance under all loading conditions and environmental improvements (including adding or improving safe and effective fish passage, promoting downstream sediment transport processes and habitat maintenance, and improving recreational access to the project vicinity). Incentive payments may not exceed 30% of the costs of the capital improvement, and are capped at \$5 million per year at a single hydroelectric facility. The Secretary is authorized to appropriate \$553.6 million for the incentive payments for fiscal year 2022, to remain available until expended.

Electric Vehicles and Renewable Energy Technology Infrastructure

The Act includes relatively limited provisions to support the adoption of electric vehicles and renewable technology infrastructure – two priorities the administration has indicated it would pursue through the reconciliation process.

With respect to electric vehicles, the Act:

- Directs states to consider establishing electric vehicle charging programs that include measures to promote greater electrification of the transportation sector, including the establishment of rates that promote affordable and equitable charging options, improve the EV charging experience for customers, accelerate third-party investment in EV charging and appropriately recover the marginal costs of delivering electricity to EV charging infrastructure (Section 40431);
- Directs the EPA Administrator to establish a program to replace existing school buses with low- or no-carbon school buses and ferries and authorizes \$1 billion per

year for fiscal years 2022 through 2026 for the implementation of this program (Sections 71101-71103); and

- Includes several provisions related to electric vehicle battery second-life applications, including directing the Secretary to carry out a demonstration project for second-life applications of EV batteries to provide services to the electric grid, establishing an electric vehicle battery recycling and second-life applications program, and establishing best practices for battery recycling and labeling (Sections 40112, 40208 and 70401-70402).

The provisions related to renewable energy focus primarily on supply chain initiatives (Sections 40201-40211) and advancing clean energy deployment on existing and reclaimed mine sites (Sections 40802, 40341-40342).

Nuclear

The Act contains limited provisions relating to nuclear energy. Of particular note, however, Section 40323 directs the Secretary to establish a civil nuclear credit program that would evaluate nuclear reactors participating in organized markets that are projected to cease operations due to economic factors and allocate credits to nuclear reactors selected through a bidding process. The credits would be allocated for a four-year period beginning on the date of selection, and would be subject to recapture if the nuclear reactor ceases operations or does not operate at an annual loss in the absence of the credits. The Act appropriates \$6 billion for the credit program for the period of fiscal years 2022 through 2026.

Federal Permitting Improvement for Major Infrastructure Projects

Title VIII would extend and expand the authorities of the Federal Permitting Improvement Steering Council (“Permitting Council”) to improve the federal permitting process for major infrastructure projects. The Permitting Council was created in 2015 under Title 41 of the Fixing America’s Surface Transportation Act (“FAST-41”). To date, the Council has facilitated the multi-agency review of more than 50 major infrastructure projects, defined as projects that require \$200 million or more in investment and federal environmental review under the National Environmental Policy Act (“NEPA”). The FAST-41 Act would expire on December 2022, but the Act repeals this sunset provision and makes the Permitting Council and the procedural

requirements of FAST-41 permanent. The Act would also codify a two-year goal for federal permitting schedules developed under FAST-41.

What happens next?

Although House Speaker Pelosi has said the House would take up the Senate bill if passed, the Act's future is intertwined with what happens next with a parallel process to finalize a budget resolution and related legislation for about \$3.5 trillion in spending over the next decade, which Democrats hope to pass via budget reconciliation. That budget resolution was introduced in the Senate on August 9, 2021 (accompanied by Senate Majority Leader Schumer's Memorandum to Democratic Senators ("Memo") with instructions to various Senate committees). It includes elements of President Biden's American Families Plan and American Jobs Plan not contained in the bipartisan Senate infrastructure deal, including substantial energy and climate-related programs. The Memo states that the budget resolution "will allow the Senate to make the most significant investment in tackling the climate crisis in U.S. history, and put America on a path to meet President Biden's climate change goals of 80% clean electricity and 50% economy-wide carbon emission reductions by 2030."

What remains clear, however, is that the Act, if passed in anything near its current form, would represent one of the most significant investments in U.S. energy infrastructure in several decades.

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