

Memo: Assessment and Analysis of the Bipartisan Infrastructure Framework

August 17, 2021

Background and Summary

Status of the Legislation and Outlook

- On August 10, the U.S. Senate passed legislation known as the Bipartisan Infrastructure Framework (BIF), which is a roughly \$1 trillion bill that includes \$550 billion in new spending for infrastructure and energy policies.
- It passed in a bipartisan manner, 69- 30.
- It includes funding for surface transportation programs such as highway, safety, transit, rail, pipeline, and research.
- It also includes funding for water, broadband infrastructure, clean energy programs, climate provisions, and includes provisions to improve environmental reviews and impose domestic manufacturing requirements on infrastructure projects.
- The Biden Administration was heavily involved in negotiating this legislation with a bipartisan group of Senators, supporting it as a part of a plan to bolster the economy in response to COVID-19.
- Separately, the Senate last week also began the process for considering a separate, tax-focused bill with significant infrastructure and climate spending (the “reconciliation bill”).
- The tax-focused reconciliation bill will take more time to pass. The Senate is currently writing the bill.
- The House will have to undertake its own separate process. House Speaker Nancy Pelosi (D-CA) has announced a plan to only consider the BIF when the House is ready to pass the tax-focused reconciliation bill.
- This means that ultimate passage of the BIF will be delayed until the House votes on the tax-focused reconciliation bill. The earliest this is likely to occur is late fall.

Key Background and Summary of IIJA

The \$550 billion is largely authorized spending and will still need to be appropriated to federal agencies. This will take subsequent Congressional action through separate legislation.

These funds will be allocated to U.S. federal agencies, such as the Department of Energy (DOE) and the Department of Transportation (DOT) to provide grants and loans to applicants for demonstration projects.

The bill appropriates funding for the construction of electric vehicles infrastructure, and research, development, and demonstration for carbon capture, transmission infrastructure, and hydrogen research.

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Report analysis and provisions directly related to bp's strategy:

Electric and Alternative Fuel Vehicles

Provides \$7.5 billion in grants for charging and fueling infrastructure and the establishment of alternative fuel corridors, directly from the Highway Trust Fund. **This is immediate funding.**

- Includes \$2.5 billion for the deployment of **alternative fuel corridors** along the National Highway System. This will include electric vehicle charging infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure, and natural gas fueling infrastructure.
 - These grants will go to states or entities of a state to contract with a private entity for acquisition and installation of publicly accessible alternative fuel vehicle charging and fueling infrastructure.
 - It also appropriates \$5 billion in the Electric Vehicle Formula Program to provide money directly for states to build **electric vehicle charging infrastructure**.

Includes other changes to existing federal transportation programs to enable EV build out:

- Makes **EV charging infrastructure and vehicle-to-grid infrastructure** eligible for funding through the existing Surface Transportation Block Grant Program (STBGP)
- Allows for the purchase of **zero-emission vehicles** in the Congestion Mitigation and Air Quality Improvement Program
- **Directs states 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, improving customer experience, including reducing wait times, accelerating third-party investment in public EV charging, and appropriately recovering the marginal costs of delivering electricity to EVs and EV charging infrastructure.

Establishes a **25-member EV working group**, comprising a variety of federal and non-federal stakeholders, to provide federal guidance and strategy for **the development, adoption, and integration of electric vehicles** into the nation's transportation and energy systems.

Directs the Secretary of Transportation to establish a \$250 million pilot program to **provide grants for the purchase of electric or low-emitting (methanol, natural gas, liquefied petroleum gas, hydrogen, coal-derived liquid fuels, biofuels) ferries**.

Authorizes and appropriates \$1 billion per year for FY 2022-2026 (total \$5 billion) to implement a **school bus change out program** ("Clean School Bus Program") to reduce emissions and improve public health.

- 50 percent of the funds are authorized for **zero-emission school buses**, and 50 percent of the funds are authorized for **alternative fuels and zero-emission school buses**.

bp policy and business implications:

- Provisions generally align with bp's position on EVs and advocacy in support of natural gas and hydrogen.
- It provides opportunity for private and third-parties to partner with states on EV and alternative vehicles build-out.

CCUS and Carbon Transport

- \$300 million for an **expanded DOE carbon utilization program** for a grant program for states and local governments to include development of standards and certifications to support commercialization of CO2 products.
- \$100 million authorized for an **expanded DOE Carbon Capture Technology program** to include front-end engineering and design (FEED) for CO2 transport infrastructure to deploy technology.
- Establishes a **\$2.1 billion CO2 Infrastructure Finance and Innovation Act (CIFIA) program**— which would allow for low-interest loans for CO2 transport infrastructure projects and grants for initial excess capacity on new infrastructure authorizes.
- \$2.5 billion for an **expanded DOE Carbon Storage Validation and Testing program** to include large-scale commercialization of new or expanded carbon sequestration projects for CO2 transport infrastructure.
- Authorizes a \$3.5 billion program for projects that contribute to the **development of 4 regional direct air capture hubs**.
- Authorizes funding for projects established in a major 2005 energy bill:
 - **Carbon capture large scale pilot projects:** Authorizes \$930 million.
 - **Carbon capture demonstration projects:** Authorizes \$2 billion.
- Authorizes \$350 million for **industrial emissions demonstration projects**, which were authorized in a major 2007 energy bill.
- Creates a \$75 million grant program for **states to establish their own Class VI permitting programs** for CO2 geological storage.
- Allows for the Department of Interior to permit **geologic carbon sequestration on the Outer Continental Shelf (OCS)**.

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Transmission

- \$30 billion in authorizations have been included for grid infrastructure, resiliency, and reliability programs. This includes:
 - \$2.5 billion to establish a revolving loan fund for a **DOE program to support construction of non-federal electric transmission lines** and other facilities by entering into capacity contracts and offering loans.

- DOE is also authorized to participate in the design, operation, and ownership of projects.
- \$6 billion for a program to provide federal financial assistance to states and public utilities to demonstrate **innovate approaches to transmission, storage, and distribution infrastructure** to harden resilience and reliability.
- \$3 billion for a matching grant program for **smart grid technologies** that deliver flexibility and resilience to the grid.
- Expands Federal Energy Regulatory Commission (FERC) **authority to site transmission lines** in “National Interest Electric Transmission Corridors.”
 - Every three years, the Secretary of Energy will issue a report that may designate a national interest transmission corridor area that is, or is expected to, experience transmission capacity constraints and congestion.
 - The designation would allow for enhanced FERC transmission siting authority within these corridors.

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Hydrogen

- It includes a comprehensive hydrogen research program with a requirement to develop a hydrogen road map for consideration by Congress.
- Authorizes \$8 billion for **four regional clean hydrogen commercialization hubs** to demonstrate the production, processing, deliver, storage, and end-use of clean hydrogen, with two in natural gas producing regions.
 - One hub must use hydrogen from fossil fuels, one from renewables, and one from nuclear.
 - Hubs should also have end-use diversity: electric power generation, industrial sector end use, and transportation.
- \$1 billion for a demonstration, commercialization, and deployment program to decrease the cost of **clean hydrogen production from electrolyzers**.
- \$500 million for a **clean hydrogen manufacturing and recycling program**.
- Directs Department of Energy to **complete technology neutral (including blue) H2 study** on fuel use in existing infrastructure.
- Directs DOE and the Environmental Protection Agency to **develop initial standard for the carbon intensity of “clean hydrogen” production** from renewable, fossil fuel with CCUS, nuclear, and other sources.
 - Beginning at 2 kilograms carbon dioxide per kilogram hydrogen, adjusted after five years, and accounting for technological and economic feasibility.

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General Clean Energy/ Renewable Provisions

Renewable Energy

- \$84 million authorized for **enhanced geothermal systems** R&D.
- \$100 million authorized for RD&D and commercialization of **wind energy technologies** and a RD&D wind recycling program.
- \$ 80 million authorized for RD&D and commercialization of **solar energy technologies**, advanced solar manufacturing, and recycling.

Supply Chains for Clean Energy Technologies: Establishes a “**Battery Material Processing Grant Program**” within DOE’s Office of Fossil Energy to ensure the US has a viable battery materials processing industry. Authorizes \$3 million for FY22-26 for battery material processing grants to expand an existing program at the DOE for RD&D of electric vehicle battery recycling and second-life applications for vehicle batteries.

Bioproduct Pilot Program: Authorizes \$10 million for a **bioproduct pilot program at the U.S. Department of Agriculture** to partner with at least one university affiliated bioproduct research facility to study the relative benefits of using materials derived from agricultural commodities in the production of construction and consumer products. The benefits to be studied include waste management cost and greenhouse gas emission reductions and other environmental benefits.

Other Notable Provisions

- **Permitting Provisions:** Makes provisions from Fixing America’s Surface Transportation Act (FAST-41) enacted in 2015 permanent, including codifying the One Federal Decision (OFD), and **sets specific parameters and deadlines for environmental review and assessment for major federal highway projects** under the National Environmental Policy Act.

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- Creates a program to **develop advanced cybersecurity applications and technologies for the energy sector**, a program to enhance and test emergency response capabilities of DOE, and a program to increase the functional preservation of electric grid operations or natural gas and oil operations in the face of threats and hazards.

- Authorizes \$250 million for the period of FY22-26 for the Cybersecurity for the Energy Sector RD&D program, \$50 million for the period of FY22-26 for the Energy Sector Operational Support for Cyberresilience Program, and \$50 million for the period of FY22-26 for Modeling and Assessing Energy Infrastructure Risk.
- Reinstates **fees on certain Superfund fees on chemicals** with modifications beginning on July 1, 2022 and sunseting on December 31, 2031. Adjusts the determination of taxable substances from a baseline of 50% to 20% to protect domestic manufacturers. Increases the rate on taxable substances where the importer does not furnish information to the Secretary at 10%.

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- Authorizes \$150 million for **critical mineral and battery recycling**, which aims to address the lack of domestic policy, markets, and infrastructure regarding the coordinated collection, recycling and reuse of single use and rechargeable consumer batteries, which contain valuable materials needed to support a US-based supply chain.
- Includes a \$6 billion competitive program to **protect operating nuclear reactors from closing** because of economic conditions. Requires the DOE to develop a report on the feasibility for using nuclear energy to meet resilience and carbon reduction goals for the Department.