Updates
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The Infrastructure Investment and Jobs Act Creates a Network of Electric Vehicle Charging Stations, but Issues Remain

The Infrastructure Investment and Jobs Act,[1] signed into law by President Biden on November 15, 2021, has the potential to transform the surface transportation sector in the United States by spurring states to invest heavily in electric vehicle charging stations along the nation's highways. This new network is intended to encourage consumers and businesses to purchase lower-emitting electric vehicles and is a key part of President Biden's climate agenda.

The Biden administration is moving quickly to implement the new law and, as of December 1, 2021, is soliciting comments from the public and stakeholders on how to facilitate its implementation.[2]

This update summarizes the national electric vehicle charging program created by the Infrastructure Investment and Jobs Act and identifies several legal issues that are likely to arise as the Biden administration moves to implement the law's vision for a national network of charging stations.

The Infrastructure Investment and Jobs Act

The Infrastructure Investment and Jobs Act establishes, among other things, an annual investment of $5 billion, from 2022 through 2026, in state-administered grants for electric vehicle charging stations. Funds will be administered through the newly created Joint Office of Transportation and Energy of the U.S. Department of Transportation (USDOT) and U.S. Department of Energy (USDOE). The investment provides "funding to States to strategically deploy electric vehicle charging infrastructure and to establish an interconnected network to facilitate data collection, access, and reliability."

The new federal funds must be used for (1) the acquisition and installation of electric vehicle charging infrastructure and connecting such infrastructure to a network to facilitate data collection, access, and reliability; (2) proper operation and maintenance of electric vehicle charging infrastructure; and (3) data sharing about charging stations to ensure the long-term success of these infrastructure investments.

The federal funds will cover 80% of the cost of eligible charging station projects. To receive the funds, each state must submit a plan to USDOT describing how that state will make progress towards a national network of charging stations. If a state fails to submit a plan or fails to implement the plan, USDOT will withhold or withdraw funds, respectively, and make those funds available to local jurisdictions on a competitive basis.

Federal funding for charging stations can be used to contract with a private entity (for example, an electric utility company or charging station vendor) for acquisition and installation of publicly accessible charging stations. That private entity would pay the nonfederal share (20%) of the cost of the project. Federal funds can only be used for charging stations that are available to the public, and those charging stations must be located along designated "alternative fuel corridors" in the United States.

In addition, if USDOT agrees with a state that designated alternative fuel corridors in the state are "fully built out," then the state can use the funds for charging stations "on any public road or in other publicly accessible locations, such as parking facilities at public buildings, public schools, and public parks, or publicly accessible parking facilities owned or managed by a private entity" (e.g., parking garages).

USDOT, in coordination with the USDOE, will provide guidance to states no later than 90 days after the enactment of the new law. Directly relevant to the electric utility sector, the guidance will require consideration of the process of "connections to the electric grid, including electric distribution upgrades," "vehicle-to-grid integration, including smart charge management or other protocols that can minimize impacts to the grid," "alignment with electric distribution interconnection processes," and "plans for the use of renewable energy sources to power charging and energy storage." In addition, states should consider "existing private, national, State, local, Tribal, and territorial government electric vehicle charging infrastructure programs and incentives," which have been adopted by many electric utilities in recent years. These considerations will likely give the electric utility sector a unique seat at the table in surface transportation planning in the United States.

Implementation Challenges and Maximizing the Effectiveness of the Funds

USDOT is currently soliciting information on "[p]otential opportunities and challenges for implementing new [infrastructure] programs" and the "necessity for additional guidance, FAQs, or program changes."[3] Stakeholders should engage their state departments of transportation—and utility commissions—early and often in 2022 to begin planning for the deployment of charging stations. In addition, there are several lingering policy issues that are likely to arise in implementation of the new law.

1. **Charging Station Owners as "Public Utilities."** Not all states have clarified that owners of charging stations are not a "public utility" for purposes of state utility regulation. In several states, electric utilities—through what is known as the regulatory compact—have a monopoly on the sale of electricity to consumers, subject to regulation by a state utility commission.[4] In those jurisdictions, a private owner of a commercial charging station, for example at a gas station or convenience store off the interstate, faces the ambiguity of whether it may be infringing on the electric utility's exclusive service territory, or worse, theoretically subjecting itself to regulation as a public utility by the state regulator. Stakeholders may have differing views in whether, and if so, how USDOT should consider this issue in implementing the law.[5]
2. **Per Kilowatt-Hour vs. Time-Based Charging Rates.** Not all states have clarified that privately owned charging stations can charge for electricity on a per-kilowatt-hour basis as opposed to a time basis (minutes in which the electric vehicle is connected to a charging station).[6] In some jurisdictions, only electric utilities are permitted to sell electricity on a per-kilowatt-hour basis and tariffs generally prohibit utility customers from "reselling" the electricity purchased from the utility. Time-based charging avoids that issue by characterizing the transaction as a service, not a sale (e.g., renting the parking space). However, critics argue that time-based charging poses fairness issues, can increase charging costs, and is being phased out in California, a national leader in electric vehicle adoption and infrastructure. An important consideration is how USDOT will seek to address this lack of uniformity in pricing methodology in its guidance.
3. **Demand Charges.** Demand charges from the electric utility often represent a key obstacle to the commercial viability of "direct current fast-charging" stations, especially in rural areas where the station may not be frequently used. Demand charges are fees that utilities charge customers for the cost of the infrastructure required to maintain a constant and reliable supply of electricity. When in use, fast charging stations represent large spikes in the demand for electricity. As a charging station owner, the higher your "peak usage," the higher your electric bill. Passing those higher costs directly to the vehicle owner may discourage charging along highways, defeating the purpose of the new law. Capping the demand charges may incentivize utility customers (e.g., truck stop franchises) to install more fast charging stations and may comfort vehicle owners that charging on highways won't cost more than their gas-powered car.[7] At the same time, capping demand charges can prevent a utility from recovering its full costs of providing service. Stakeholders will have differing views on the role that demand charges play in the economics of charging stations, and whether USDOT should address this issue in its guidance.

4. **Managed Charging to Reduce Electric System Costs.** Some electric utilities are starting to implement so-called residential "managed charging" pilot programs where the utility provides a recurring payment or other incentive to the utility customer in exchange for the utility's ability to control the rate at which the customer's electric vehicle charges, primarily to avoid times when the cost of electricity is highest to the utility (e.g., midday during the summer).[8] A key consideration for USDOT and the states is whether these programs can be adapted for fast charging stations along highways in a way that manages electric costs for utility customers and vehicle owners alike.
5. **Electric Resource Planning and Customer Rates.** The new funding will cover a significant portion of the cost to install the charging stations, but not necessarily the broader electric infrastructure needed to meet the increased demand. In many jurisdictions, that electricity will have to be supplied by electric utilities, with the ongoing cost of the infrastructure needed to maintain a reliable supply electricity to the stations to be recovered from the utility's residential and commercial customers. A central issue for charging station deployment will involve utility resource planning to ensure that utilities will be ready for the increase in demand in a way that benefits all electric customers.

Conclusion

The Infrastructure Investment and Jobs Act is transformational and poised to remake the surface transportation sector in the United States. With careful planning by the states and close coordination with electric utilities, the Joint Office of Transportation and Energy will be able to maximize the effectiveness of the funds under the new law to advance President Biden's ambitious climate and energy goals.

Endnotes

[1] INFRASTRUCTURE INVESTMENT AND JOBS ACT, PL 117-58, November 15, 2021, 135 Stat 429.

[2] Infrastructure and Investment Jobs Act Request for Information, 86 Fed. Reg. 68297 (December 1, 2021).

[3] 86 Fed. Reg. at 68297.

[4] See e.g., In the Matter of the Petition of PUGET SOUND ENERGY For an Accounting Order Approving the Allocation of Proceeds of the Sale of Certain Assets to Public Utility District #1 of Jefferson County, Docket No. UE-132027, Order Granting, in Part, and Denying, in Part, Petition for Accounting Order at 11-12 (September 11, 2014) ("[I]n its most basic form, the regulatory compact is that utilities have an obligation to provide all customers in their territory with safe and reliable service in return for the regulator's promise to set rates that will compensate the utility for the costs incurred to meet that obligation.").

[5] The Iowa Utilities Board recently adopted a rule that prohibits a rate-regulated utility from restricting the method of sale of energy for electric vehicle charging. See 199 IAC 20.20. While many states and the District of Columbia have resolved this issue, not all have. For example, proposed legislation in Wisconsin–not yet adopted–would specify that a person who owns, operates, manages, leases, or controls a charging station is not a public utility if the person does not otherwise provide electricity to others for a fee. 2021 Wisconsin Senate Bill No. 573, Wisconsin One Hundred Fifth Legislature—2021-2022 Regular Session. Similarly, the Puerto Rico Energy Bureau is undergoing a rulemaking process related to the deployment of EV charging infrastructure, through which it seeks to clarify that the delivery of electricity via EV charging infrastructure to an end user does not constitute operating as an electric utility. In Re the Deployment of Electric Vehicle Charging Infrastructure, Docket No. NEPR-MI-2021-0013, Resolution and Order (November 18, 2021).

[6] Under the Wisconsin proposed legislation, the fee charged for parking near or connecting to the charging station must be a flat fee or based on the amount of time the user is connected or on the amount of electricity used (e.g., kilowatt hours). The Iowa Utilities Board also recently clarified that a charging station owner is not a public utility solely by selling electricity for vehicle charging. See 199 IAC 20.20.

[7] For example, Minnesota Power recently received approval for a three-year EV Commercial Charging Rate Pilot Program in which pilot participants are provided with a credit to reduce the net amount of the customer's demand charge to no more than 30% of the customer's EV-related electricity bill. In the Matter of Minnesota Power's Petition for Approval of its Electric Vehicle Commercial Charging Rate Pilot, Docket No. E-015/M-19-337, Order Approving Pilot with Modifications, and Setting Reporting Requirements (December 12, 2019). Additionally, in 2020, Florida Power & Light Company sought and received approval to limit the amount of demand charges billed to qualifying providers of EV public fast charge services. In re: Florida Power & Light Company's Petition for Approval of Optional Electric Vehicle Public Charging Pilot Tariffs, Docket No. 20200170-EI, Order Granting Petition for Approval of Optional Vehicle Public Charging Pilot Tariffs by Florida Power & Light Company (December 21, 2020).

[8] SMART ELECTRIC POWER ALLIANCE, THE STATE OF MANAGED CHARGING IN 2021, 15 (November 2021).

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