Congress of the United States

Washington, D.C. 20510

June 16 2022

RECEIVED
By The Federal Energy Regulatory Commission Office of External Affairs at 9:42 am, Jun 21, 2022

The Honorable Richard Glick
Chairman

The Honorable James Danly
Commissioner

The Honorable Allison Clements
Commissioner

The Honorable Mark C. Christie
Commissioner

The Honorable Willie L. Phillips
Commissioner

Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear Chairman Glick and Commissioners:

We write to ask the Federal Energy Regulatory Commission (FERC) to continue its record of innovation in response to market evolution and address the barriers to transportation electrification. Although battery prices have fallen 89% and U.S. automakers are investing billions of dollars in electric vehicle (EV) research and development, it remains challenging to identify a viable business case for private investment in the EV charging stations these vehicles will need.

EV charging policy should promote competitive market dynamics. Without market-oriented policies in place as a foundation for public investment, there is a risk that public dollars spent will be stranded in ways that do not serve an adequate number of consumers and do little to combat EV range anxiety.

FERC-jurisdictional rates currently present a significant barrier in this respect. Specifically, the demand-based fees imposed by several wholesale capacity markets can pass on undue and significant costs to EV charging stations in likely noncompliance with the Federal Power Act's just and reasonable requirements. In so doing, they threaten the economic sustainability of high-capacity charging stations, including the direct current (DC) fast chargers needed to electrify the transportation sector and meet the needs of consumers.

We ask you to address this issue by scheduling a technical conference on wholesale market obstacles to transportation electrification and by addressing unduly discriminatory wholesale

rates consistent with the statutory schedule on which states are currently acting subject to the Infrastructure Investment and Jobs Act (IIJA).[1]

Congress addressed the need for capital investment in transportation electrification with the IIJA, appropriating $7.5 billion for charging stations along our nation's highway system. Congress has also addressed the retail rate issues holding back transportation electrification with §40431 of the IIJA, which directs every state to consider the adoption of EV-specific rates that accelerate private sector investment in EV charging, facilitate deployment of faster charging technology, and promote affordable and equitable EV-charging options.[2] Section 40431 requires each covered state public utility commission, municipal utility, and electric cooperative to consider these measures by November 2022, and they must complete consideration by November 2023.

In both wholesale and retail markets, demand-based fees pose particular challenges for low load-factor customers – that is, customers that are prone to having peak demand that is comparatively high relative to their overall electric consumption. The Federal Power Act provides FERC the authority to assess demand-based fees in FERC-jurisdictional wholesale markets and bring them into compliance with just and reasonable requirements on an expedited timeline.

Economically sustainable transportation electrification depends on electric-sector rate reform. DC fast charging stations have unique load profiles due to a need to be always available to serve EV drivers. Especially in the early phases of transportation electrification, they have periods of high utilization interspersed with dormancy, and the ratio of peak demand to average energy demand, or load factor, is lower than most common commercial loads.

Charges based on a customer's peak demand, which often do not correspond to peak system demand, were not designed with low load factor customers in mind. As a result, these rates may over-recover costs from customers. According to a 2021 report published by the U.S. Department of Energy, demand-based charges can account for most of an EV charging station's operating expenses and can exceed the revenue generated by the station.[3] For example, ultra-fast 150 kW EV chargers do not break even under more than half of rate schedules in a recent study, even at usage rates of 10 charges per day, primarily due to demand-based charges.[4]

In FERC-jurisdictional wholesale markets, demand-based fees include capacity charges assigned in certain markets to large customers based on energy demand during a predetermined number of system peak load hours. A station that provides EV charges during a peak load hour will be assigned a "capacity tag" that can saddle the station with unsustainable costs for the next year. Two identical DC fast charging stations in the same network can thus have widely varying costs

---

[1] *Infrastructure Investment and Jobs Act,* Pub. L. No. 117-58, https://www.congress.gov/117/plaws/publ58/PLAW-117publ58.pdf (2021).
[2] 16 U.S.C. 2621(d) (2021).
[3] *An EV Future: Navigating the Transition,* U.S. DEPARTMENT OF ENERGY, https://8b9a2972-f6bd-463f-ab0e-7b2ba71ee2f1.filesusr.com/ugd/1c0235_965967cdf2bf4b94924c05637398fda3.pdf (Oct. 2021).
[4] *Overcoming Barriers to Expanding Fast Charging Infrastructure in the Midcontinent Region*, GREAT PLAINS INSTITUTE, https://scripts.betterenergy.org/reports/GPI_DCFC_Analysis_July_2019.pdf (Jul. 2019).

of operation based their capacity tags. An EV charging network operator that maintains station availability risks experiencing a major financial penalty for providing the necessary service to EV drivers during a small number of hours.

Capacity charges pre-date transportation electrification and introduce extreme volatility and spikes into the costs of operating EV charging stations. They do little to provide an actionable market signal because the hours that constitute the system peak are only knowable retrospectively. In one worst-case example, these demand-based fees resulted in an effective cost of electricity that exceeded an equivalent of $33/gallon of gasoline, without a reasonable ability for charging station operators to predict or mitigate these charges.[5] These charges are of a kind with the rate roadblocks that IIJA §40431 seeks to redress. As one of us said last year on the floor of the U.S. Senate, "Our intention is to ensure that alternatives to traditional, demand-based electricity rates are made available to EV charging station owners with appropriate oversight."[6]

FERC's April 29, 2021 technical conference on *Electrification and the Grid of the Future* raised important questions on load growth, infrastructure demand, and intergovernmental coordination, but it did not address rate issues hindering the transition to sustainable electric transportation. This omission makes a new proceeding vital, and provides the Commission with the opportunity to initiate specific solutions to the enumerated challenges of transportation electrification on a similar timeline to states working to fulfill their obligations under IIJA §40431.

IIJA §40431 obliges all 50 states to work toward EV-appropriate rates that increase private sector investment in public charging over a two-year timeline, so we encourage FERC to include state-level and stakeholder voices in this technical conference on wholesale market obstacles to transportation electrification.

The rapid emergence of a new customer class—those who operate EV charging stations servicing the EV-driving public—is threatened by some wholesale market designs that preclude economic sustainability. As our economy electrifies, these designs threaten the pocketbooks of an increasing portion of Americans. We believe FERC's existing Federal Power Act mandate allows and obliges the Commission to reform these policies to accommodate the nascent EV charging market. While such consideration is underway, please provide responses to the following questions:

---

[5] PJM Interconnection levies generation capacity charges based on energy demand during the peak hour of the five highest load days of the summer, and it levies transmission capacity charges based on energy demand during either the peak zonal load hour or peak hours on top five zonal load days. Public Service Electric and Gas Company's (PSE&G's) New Jersey service territory, where capacity charges are passed through to all customers with demand exceeding 100 kW, is just one example where these charges have caused unintended results. According to one EV charging operator, the impact of capacity charges in PSE&G's territory has led to extreme outcomes such as the effective cost per kWh of demand exceeding an equivalent of $33/gallon of gasoline. *See* New Jersey Board of Public Utilities Docket No. EO18101111, *Prepared Direct Testimony and Schedules of Jigar J. Shah on Behalf of Electrify America*, ELECTRIFY AMERICA, p.21 (Sep. 2020).

[6] Congressional Record, August 5, 2021, S.5926-5927

Congress of the United States

Washington, D.C. 20510

1. Will FERC convene a technical conference on wholesale market obstacles to transportation electrification and, if so, on what date?
2. Using its longstanding existing authorities under the Federal Power Act, what steps can FERC take to alleviate obstacles to transportation electrification presented by current rate structures in FERC-jurisdictional markets, and on what timeline does FERC plan to act on each of these steps?
3. Will FERC initiate rate review and reform efforts to address barriers to transportation electrification on the same schedule as IIJA §40431 obliges all 50 states to act?

Thank you for your attention to this matter. We look forward to your prompt response to these questions and toward ongoing work with you on transportation electrification.

Sincerely,

John Hickenlooper
United States Senator

Thom Tillis
United States Senator

Ann McLane Kuster
Member of Congress

Dusty Johnson
Member of Congress

Document Content(s)