



February 16th, 2023

Via Electronic Filing

Public Utility Commission of Ohio
180 E. Broad St.
Columbus, OH 43215

RE: Case No. 22-1025-AU-COI, In the Matter of the Commission’s Investigation into the Implementation of the Federal Infrastructure Investment and Jobs Act’s (IIJA) Electric Vehicle Charging (EVC) PURPA Standard

To whom it may concern:

Electrify America appreciates the opportunity to submit this reply comment letter per Paragraph No. 11 of the Ohio Public Utility Commission’s (“Commission”) Entry issued on November 14th, 2022. In that Entry, the Commission explained that it opened this proceeding to consider the standard established by the federal Infrastructure Investment and Jobs Act (“IIJA”) through amendments to the federal Public Utility Regulatory Policy Act (“PURPA”) of 1978, regarding electric-vehicle charging (“EVC Standard”).¹ On February 1, 2023, Electrify America submitted its Initial Comments on the importance of a robust Commission investigation into the EVC standard in this docket.² Electrify America reiterates those comments now.

Rates with high demand charges present a significant barrier to sustainable economics for Direct Current Fast Charging (“DCFC”) stations and must be addressed to encourage development of a robust and competitive charging infrastructure in the state of Ohio. In this reply comment, Electrify America addresses limited issues raised in stakeholders’ initial comments regarding load management programs, marginal cost rates and hosting capacity maps.

I. The Commission Should Ensure That Utility Load Management Programs That May Result from This Investigation Account for the Needs and Constraints of Electric Vehicle Charging Customers and Use Cases.

Several stakeholders, including ChargePoint, Duke Energy Ohio, Inc. (“Duke”), and Dayton Power and Light Company d/b/a AES Ohio (“AES Ohio”) raised the need to consider or implement managed charging programs for electric vehicle charging customers off-peak times.^{3, 4, 5} For instance, Duke suggests that the Commission consider use of load management programs

¹ Codified in 16 United States Code (U.S.C.) 2621(d)(21).

² Electrify America’s Initial Comments appended its comments filed in Case 22-755-AU-COI on September 12, 2022 regarding the EVC standard.

³ ChargePoint Initial Comments, Case No. 22-1025-AU-COI, February 1, 2023, p. 15

⁴ Dayton Power and Light Company d/b/a AES Ohio Initial Comments (“AES Ohio Comment”), Case No. 22-1025-AU-COI, February 1, 2023, p. 2.

⁵ Duke Energy Ohio, Inc. Initial Comments (“Duke Comment”, Case No. 22-1025-AU-COI, February 1, 2023, p. 4.



that incorporate features such as demand-response, subscription rates, and credits for off-peak default charging to promote transportation electrification and broader EV adoption.⁶ These programs can have widespread benefits, but their application must be tailored to EV charging uses cases and customer segments to be successful. Elasticity and flexibility of EV charging demand vary greatly by charging segment and use case and impact the suitability of managed charging.

Public DCFC, in particular, has difficulty participating in managed charging programs due to having inelastic demand since they serve EV drivers who are in transit and need to charge to continue their journeys. The difficulties that public DCFC charging stations experience participating in load management or dynamic rates was recognized in the following recent studies of EV charging loads: Synapse Energy economics report commissioned by the Natural Resources Defense Council (“Synapse Report”); and a report commissioned by the National Association of Regulatory Commissioners (“NARUC Report”) examining best practices for PURPA 111(d) implementation.^{7, 8} These reports observed that public DCFC stations are generally reluctant to charge their customers (the EV drivers) dynamic rates because EV drivers prefer predictable and relatively stable electricity prices.^{9, 10} In addition, both reports recognized that DCFC stations may have difficulty throttling load to reduce demand charges because EV drivers expect to be able to charge their vehicles as quickly as possible.^{11, 12}

A recent order issued by the New York State Public Service Commission (“NY PSC”) includes findings that align with the findings in the NARUC and Synapse Reports. In its January 19, 2023 order in Case No. 22-E-0236, the NY PSC rejected a proposal to require public DCFC stations to participate in a managed charging program as a condition of taking service on an EV distribution demand discount program after determining “that managing charging demand is antithetical to public DCFC stations’ core business model.”¹³ The Commission explained that, “[b]ecause public DCFC charging is not predictable, cannot be scheduled, and often cannot be managed without impacting the EV driving experience, public DCFC stations simply cannot be expected to manage their charging at this phase in the EV adoption cycle.”¹⁴

In contrast to public DCFC charging stations, other EV charging segments such as fleets may have greater flexibility to participate in managed charging. Therefore, they may be able to

⁶ Id., pp. 4-5

⁷ Whited et al., Best Practices for Commercial and Industrial EV Rates, Synapse Energy Economics (“Synapse Report”), (July 13, 2020), p. 5 available at: <https://www.synapse-energy.com/sites/default/files/Best Practices for Commercial and Industrial EV Rates 18-122.pdf>.

⁸ Bosco, Jenifer, et al.; Best Practices for Sustainable Commercial EV Rates and PURPA 111(d) Implementation, National Association of Regulatory Utility Commissioners (“NARUC Report”), (December 2022), pp. 3-4 available at <https://pubs.naruc.org/pub/55C47758-1866-DAAC-99FB-FFA9E6574C2B>

⁹ Synapse Report, p. 5.

¹⁰ NARUC Report, p. 4.

¹¹ Id., p. 3.

¹² Synapse Report, p. 5.

¹³ NY PSC Final Order, *Proceeding to Establish Alternatives to Traditional Demand-Based Rate Structures for Commercial Electric Vehicle Charging*, Case No. 22-E-0236, pp. 20 (Jan. 19, 2023).

¹⁴ Id.



benefit from participating in managed charging programs that reward them for charging during off-peak times.

For the reasons noted above, public DCFC stations in general are not a strong candidate for load management and the Commission should differentiate among EV charging sectors and use cases as it evaluates opportunities for load management

II. The Commission Should Consider Marginal Cost Pricing, Particularly for High Power EV Charging Applications such as DCFC Stations.

ChargePoint and AES Ohio both supported consideration of rates that recover the marginal costs of delivering electricity for EV charging. For instance, ChargePoint noted that “it may be appropriate for the Commission to consider EV rates that recover marginal costs to serve new EV load.”¹⁵ To support its assertion, ChargePoint pointed to the NARUC Report which stated, “As long as rates are set to recover at least marginal costs, existing customers will bear no additional costs from bringing this new load onto the system, while benefitting in the long-term from downward pressure on rates due to the addition of incremental commercial EV load onto the grid.”¹⁶

AES Ohio proposes that the costs and benefits of new EV programs, future rates, or alternative rate structures include consideration of the balance between new retail revenues and marginal system costs required to serve new EV load. They specifically point to the RIM (Ratepayer Impact Measure) test as an indicator of both economic efficiency and fairness among customers.¹⁷ The NARUC report states that, “encouraging fuel switching from historically gasoline- or diesel-powered vehicles presents an opportunity to bring incremental load onto the grid and spread the fixed costs of the system over a greater volume of electricity sales, putting downward pressure on rates for all electricity customers.”¹⁸

Accordingly, Electrify America urges the Commission to include consideration of marginal cost rates in any investigation into alternative rate designs that can remove the barrier imposed by traditional demand charges on public DCFC stations.

III. The Commission Should Consider Directing the Public Utilities to Establish Hosting Capacity Maps That Identify Locations That Can Host EV Charging Infrastructure Without Significant Distribution System Upgrades.

The Ohio Manufacturers’ Association Energy Group (“OMAEG”) supports having the electric distribution utilities develop “hosting capacity maps to guide EV charging infrastructure

¹⁵ ChargePoint Initial Comments, p. 8.

¹⁶ Id. citing NARUC Report, p. 12.

¹⁷ AES Ohio Comments, p. 5.

¹⁸ NARUC Report, p. 12.



investment to the least-cost locations.”¹⁹ Electrify America also supports the use of hosting capacity maps²⁰ to transparently provide information about available capacity on the distribution systems in the state. It is well known that third-party developers face high capital cost when developing public DCFC charging stations. Bearing in mind that many factors go into the selection of a location for a new public DCFC station beyond the needed distribution system upgrades at a particular site, maps that help guide the EV charging market and developers to locations on the distribution system that have ample hosting capacity could potentially reduce the total cost of public DCFC infrastructure investments. To the extent that it does, such hosting capacity maps could positively impact and enhance the pace at which Ohio achieves transportation electrification.

IV. Conclusion

We appreciate the opportunity to submit Initial and Reply Comments in this important proceeding, and look forward to further engaging in this proceeding in order to assist the Commission in its investigation into the EVC standard.

Respectfully submitted,

/s/ Anthony Willingham

Government Affairs & Public Policy Lead—State Government
Electrify America

2003 Edmund Halley Drive

2nd Floor, Suite 200

Reston, VA 20191

Anthony.Willingham@electrifyamerica.com

(571) 786-9934

¹⁹ Ohio Manufacturers’ Association Energy Group (OMAEG) Comments, Case No. 22-1025-AU-COI, p. 6 (February 1, 2023).

²⁰ National Grid provides publicly available maps that provide EV load service capacity for its New York service territory. This sample EV hosting capacity map can be viewed at the following link by clicking on the “EV Load Service Capacity” tab available here: [National Grid New York System Data Portal \(esri.com\)](https://www.esri.com/national-grid/new-york-system-data-portal)

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Summary: Comments Reply Comments of Electrify America, LLC electronically
filed by Mr. James D Bride on behalf of Electrify America, LLC