BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of the Commission's Investigation into the Implementation of the Federal Infrastructure Investment and Jobs Act	**)** **)** **)** **)**	**Case No. 22-1025-AU-COI**

COMMENTS OF THE OHIO POWER COMPANY

I. Introduction

The Infrastructure Investment and Jobs Act of 2021 ("IIJA"), also known as the Bipartisan Infrastructure Law, authorizes $1.2 trillion for infrastructure spending, with a significant amount of funding directed to energy infrastructure and programs. Beyond the funding opportunities outlined in the IIJA, the legislation also amends the Public Utility Regulatory Policies Act of 1978 ("PURPA"), to add electric vehicle ("EV") charging programs standards. The IIJA required states to commence consideration of these standards no later than November 15, 2022, and this consideration must be concluded and a determination as to whether to adopt each standard made by November 15, 2023. The Public Utilities Commission of Ohio ("Commission") opened this case on November 2, 2022 and issued an Entry in order to permit the Commission to consider the IIJA amendments to PURPA related to demand response practices and to elicit comments from interested parties.[1]

Given the potential impacts of the PURPA amendment and the review by the Commission, Ohio Power Company ("AEP Ohio") appreciates the opportunity to comment on potential standards and submits the following comments to the Commission for its consideration

[1] *In the Matter of the Commission's Investigation into the Implementation of the Federal Infrastructure Investment and Jobs Act's Demand-Response PURPA*, Case No. 22-1025-AU-COI, Entry (November 14, 2022).

with respect to adopting standards to promote greater transportation electrification (IIJA Sec. 40431).

II. Comments

The shift to electric transportation represents a fundamental change in our transportation system as well as all elements of the electrical system. The charging infrastructure required for this change will necessitate investment from all interested market actors, including the electric distribution utilities ("EDUs"). As the owners of the distribution infrastructure that is vital to distributing power to all customers, including EV owners, EDUs have a critical role to play in this emerging sector. The IIJA establishes that "[e]ach State shall consider measures to promote greater electrification of the transportation sector," and established four areas to consider. *See* 16 U.S.C. 2621(d)(21). The EDUs are uniquely positioned to address each of these four areas of focus.

> *(A) promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure*.

Regulatory clarity around EV charging is an important component to reduce and eliminate barriers to customers implementing large capital investments associated with EV charging infrastructure. As part of the approved Stipulation in its most recent electric security plan ("ESP"), AEP Ohio implemented a successful electric vehicle charging rebate pilot ("EV Rebate Pilot") offered to non-residential customers. This program (that has now sunset) implemented a rebate incentive program for hardware, network services, and installation of charging infrastructure, resulting in the installation of over 350 electric vehicle charging stations for customers. In addition to the EV Rebate Pilot, AEP Ohio has a single Plug-In Electric Vehicle ("PEV") pilot rate available for public charging. However, the PEV pilot is limited to 500 customers.

While these measures have been successful in promoting affordable and equitable charging, they have been limited in their scope because in Ohio there is no clear regulatory mechanism to support customer EV demand management and the installation of charging infrastructure outside of an ESP. Systematic EDU involvement is needed to optimize implementation of charging infrastructure and associated distribution infrastructure to avoid system level issues in the coming years as EVs and charging scale. To begin addressing these issues, AEP Ohio has proposed a new electric transportation plan as part of its ESP V, which is comprised of a set of programs that provide charging infrastructure incentives in combination with tariff rates. Clear regulatory guidance concerning proposed electric transportation plans by EDUs will benefit customers, EV industry participants, and the public interest.

(B) improve the customer experience associated with electric vehicle charging, including by reducing charging times for light-, medium-, and heavy-duty vehicles.

Improving the customer experience of charging is of great importance. These efforts will take a variety of forms and utilities should be encouraged to design programs and rates which result in a positive customer experience no matter the charging location – at home, at work, or on the road. However, reduction of charging time should not always be the goal. Appropriately matching the needs of the site host, charging operator, and drivers to provide a great experience should be the goal. For example, reducing charging times in residential or fleet applications where the vehicles are naturally parked all night would not necessarily improve the customer experience. Doing so could result in unnecessary infrastructure costs for the EV owner, and increased system costs for ratepayers.

EDUs should be encouraged to design programs that balance the needs of all grid users and provide a high-quality user experience for EV drivers. Potential EDU involvement in

improving the customer experience of charging could involve, but is not limited to, the following:

- Public Charging: Eligibility for utility incentives for public DC fast charging could be contingent on items such as: 1) chargers meeting durability benchmarks to avoid implementation of substandard equipment; 2) proximity to or inclusion of certain amenities which the public is accustomed to at gas stations such as adequate lighting, restrooms, canopies, windshield cleaning stations, food, etc.; 3) minimum standards for charging speeds, 4) proximity to travel corridors, 5) minimum number of charging ports per site, etc. Additional incentives could be given for locations that meet other policy or technical objectives such as equity provisions, filling gaps in the charging network, or locations that utilize existing utility infrastructure. Eligibility for utility incentives for Level 2 charging could have a similar set of metrics adapted for optimal Level 2 user experiences.
- Residential Charging: Studies indicate that 80% of charging happens at home[2]. To improve the customer experience of most charging sessions, utilities must provide programs to improve the daily charging needs of residential customers. This may include: 1) Time of Use rates to offer lower rates for overnight charging; 2) rebates on qualified charging equipment to allow the vehicle to be fully charged during the off-peak hours; 3) managed charging programs to pre-charge vehicles in advance of extreme weather events, control the load from multiple chargers on a neighborhood circuit to prevent overloading; and more.

[2] Incorporating Residential Smart Electric Vehicle Charging in Home Energy Management Systems, National Renewable Energy Lab (NREL), published 2021.

- Education and Outreach: EDUs should be encouraged to develop education and outreach programs to work with customers interested in electric transportation. These programs could involve: 1) staff to work with fleets on electrification plans and EV charging companies on new installations; 2) enhanced website content for residential and commercial customers; and 3) outreach to local vehicle dealerships to help mutual customers understand utility programs.

AEP Ohio looks forward to working with PUCO and stakeholders to improve the customer experience of EV charging in a manner that delivers value to all customers.

(C) accelerate third-party investment in electric vehicle charging for light-, medium-, and heavy-duty vehicles; and

AEP Ohio can help to address this in multiple ways. First, by incentivizing customers in a way that reduces the upfront costs associated with installing EV charging infrastructure, such as the EV Rebate Pilot program discussed above. Second, by modernizing contribution in aid of construction charges. Finally, EDUs can provide innovative rate structures to provide charging station operators more predictability in their monthly bills.

(D) appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.

Here again, innovative rate structures are key. EV rates should strike a balance between approving rates based on cost causation principles while allowing for incentives that assist the market transformation for EV charging. This can take the form of time-of-use rates, EV-specific charging tariffs, or other creative tariff structures. All of which will require Commission and EDU involvement in order to maximize investments in the distribution system while appropriately allocating those marginal costs.

In conclusion, there is an urgent role for EDUs and Commissions to play in this emerging industry. The technology and policy landscape of electric transportation is evolving rapidly.

As EVs scale, they will be utilized by all customer segments, including commercial and industrial, residential, multifamily, etc. Though total transportation system turnover is decades away, it is incumbent upon EDUs and the Commission to start adequately planning now. This includes distribution and transmission planning as well as providing adequate investment in charging infrastructure and price signals to accommodate this fundamental shift. For these reasons, AEP Ohio supports the intent of these proposed standards and appreciates the Commission's efforts to clarify the roles of electric transportation market actors. AEP Ohio welcomes the opportunity to work with PUCO and stakeholders to define the roles for utilities, site hosts, and third-party EV charging providers.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

In accordance with Rule 4901-1-05, Ohio Administrative Code, the PUCO's e-filing system will electronically serve notice of the filing of this document upon the following parties. In addition, I hereby certify that a service copy of the foregoing was sent by, or on behalf of, the undersigned counsel to the following individuals this 1ST day of February 2023, via electronic mail.

/s/ Michael J Schuler

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Summary: Comments Initial Comments. electronically filed by Michael J. Schuler on behalf of Ohio Power Company