BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In The Matter of The Commission's) Investigation Into The Implementation of The) Federal Infrastructure Investment and Jobs) Act's Electric Vehicle Charging PURPA) Standard.)

Case No. 22-1025-AU-COI

COMMENTS OF CHARGEPOINT, INC.

I. <u>INTRODUCTION</u>

Consistent with the November 14, 2022, Entry¹ of the Public Utilities Commission of Ohio ("Commission") in the above-captioned proceeding, ChargePoint, Inc. ("ChargePoint") thanks the Commission for the opportunity to provide these comments regarding the standards established by an amendment to the federal Public Utility Regulatory Policy Act (PURPA) in the Infrastructure Investment and Jobs Act, H.R. 3684 (IIJA).

The IIJA directs each state to consider "measures to promote greater electrification of the transportation sector," including establishing rates that, among other things, promote affordable and equitable EV charging options for residential, commercial, and public electric vehicle ("EV") charging infrastructure and accelerate third-party investment in EV charging.² In these comments, ChargePoint provides the Commission with several recommendations that will support increased investment in EV charging stations and facilitate deployment of available federal funding in accordance with the IIJA. ChargePoint had also previously submitted similar comments specific

¹ See Ohio Public Utilities Commission Case No. 22-1025-AU-COI, Entry. (November 14, 2022).

² See IIJA Sec. 40431.

to the Commission's investigation on the numerous provisions and programs authorized by the

IIJA.³

In summary, ChargePoint recommends:

- The Commission should initiate a proceeding to holistically consider measures that promote greater transportation electrification, including EV-specific rates.
- Utilities should be authorized to increase staffing that is dedicated to EV charging infrastructure to accommodate the anticipated influx of new service requests.
- The Commission should expand existing EV rebate incentive programs and encourage the utilities to develop make ready programs.
- The Commission should simplify and standardize EV infrastructure planning through the adoption of line extension policies.
- The Commission should encourage utilities to propose TOU rates, managed charging programs, and/or demand response programs.

II. <u>ABOUT CHARGEPOINT</u>

ChargePoint is a world-leading EV charging network, providing scalable solutions for every charging scenario from home and multifamily to workplace, parking, hospitality, retail, and transport fleets of all types. ChargePoint's cloud subscription platform and software-defined charging hardware is designed to enable businesses to support drivers, add the latest software features and expand fleet needs with minimal disruption to overall business.

ChargePoint's hardware offerings include Level 2 ("L2") and DC fast charging ("DCFC") products, and ChargePoint provides a range of options across those charging levels for specific use cases including light duty, medium duty, and transit fleets, multi-unit dwellings, residential (multi-family and single family), destination, workplace, and more. ChargePoint's software and cloud services enable EV charging station site hosts to manage charging onsite with features like

³ See ChargePoint Comments (September 12, 2022), Ohio Public Utilities Commission Case No. 22-755-AU-COI.

Waitlist, access control, charging analytics, and real-time availability. With modular design to help minimize downtime and make maintenance and repair more seamless, all products are UL-listed and CE ("EU") certified, and Level 2 solutions are ENERGY STAR® certified.

ChargePoint's primary business model consists of selling smart charging solutions directly to businesses and organizations while offering tools that empower station owners to deploy EV charging designed for their individual application and use case. ChargePoint provides charging network services and data-driven, cloud-enabled capabilities that enable site hosts to better manage their charging assets and optimize services. For example, with those network capabilities, site hosts can view data on charging station utilization, frequency and duration of charging sessions, set access controls to the stations, and set pricing for charging services. These features are designed to maximize utilization and align the EV driver experience with the specific use case associated with the specific site host. Additionally, ChargePoint has designed its network to allow other parties, such as electric utilities, the ability to access charging data and conduct load management to enable efficient EV load integration onto the electric grid.

III. INFRASTRUCTURE INVESTMENT AND JOBS ACT OF 2021

On November 15, 2021, President Joe Biden signed into law H.R. 3684, the IIJA.⁴ Among other things, the IIJA will allocate \$5 billion to states through the National Electric Vehicle Infrastructure ("NEVI") Formula Program, which aims to develop a national highway charging system. In addition, IIJA allocates \$2.5 billion in competitive grants administered by the federal government to support the deployment of Alternative Fuel Infrastructure, such as electric vehicle charging stations, both along highway corridors and in communities. Ohio is expected to receive

⁴ H.R. 3684 became Pub. L. No: 117-58 on November 15, 2021, available at <u>https://www.congress.gov/bill/117th-congress/house-bill/3684/text</u>.

\$140 million over 5 years to support the expansion of EV charging⁵ and will also have the opportunity to apply for the \$2.5 billion in grant funding dedicated to EV charging in the bill.

The IIJA also includes amendments to PURPA which direct utility regulators across the country to consider measures that promote greater electrification of the transportation sector through third party investments.⁶ Specifically, the PURPA amendments require utility regulators in every state to make a final determination before November 2023 whether to establish new measures, including EV-specific rate designs that:

- 1. Promote affordable and equitable EV charging options for residential, commercial, and public EV charging infrastructure;
- 2. Improve the customer experience associated with EV charging, including by reducing charging times;
- 3. Accelerate third-party investment in EV charging; and
- 4. Appropriately recover the marginal costs of delivering electricity to EVs and EV charging infrastructure.

IV. <u>COMMENTS</u>

The historic programs created by the IIJA provide the Commission a tremendous opportunity to implement standards that will advance EV growth in Ohio and help realize the benefits that EV adoption can bring. Accordingly, ChargePoint respectfully provides the following recommendations.

A. Develop Alternatives to Traditional Demand-Based Rates

A competitive market currently exists in Ohio to build, own, and operate DCFC stations. Public and private entities that invest in EV charging stations typically take service on a commercial and industrial ("C&I") electricity rate which may contain demand charges based on

⁵ <u>https://www.whitehouse.gov/wp-content/uploads/2021/08/OHIO_Infrastructure-Investment-and-Jobs-Act-State-Fact-Sheet.pdf</u>.

⁶ See IIJA Section 40431, pp. 620-621.

the customer's highest measured demand in a month. Traditional demand-based rates can pose a significant challenge to the deployment of EV charging, particularly at commercial and public charging locations, because these charging sites can be dominated by relatively rare, yet very power-intensive, fast charging sessions. This impact is amplified for fleets and other customers that require charging multiple vehicles simultaneously at high power levels and/or that do not have flexibility to adjust the timing of charging sessions for multiple vehicles.

For public charging sites, conventional commercial rate design often makes otherwise viable and desirable projects uneconomic. In some markets, demand charges can account for as much as 90% of a site host's electricity costs.^{7,8} Unlike traditional commercial customers on demand-based rates, public EV charging station site hosts have very limited ability to manage or mitigate the impact of demand charges without negatively impacting the EV driver experience. For example, a factory or large commercial facility may be able to avoid turning on several large loads at the same time to avoid higher demand charges. By contrast, if a public DCFC site host offers four charging ports, the site host could only avoid significant demand charges by limiting the number of ports in use simultaneously or by restricting the amount of power to each port, or both. Either action could negatively impact the driver experience and thus defeat the purpose of expanding public DCFC infrastructure.

Under traditional demand-based rates, site hosts will effectively be penalized for providing charging services not only in the early-stage EV market, but also as charging power levels increase in the future. Additionally, demand charges can permanently penalize site hosts that provide

⁷ "Site host" refers to the owner or lessor of the property on which an EV charging station is located. Site hosts include residential customers; owners of multifamily housing units ("MFH"); commercial customers that offer charging to the public, their customers, and/or their employees; fleet owners; and government entities.

⁸ Rocky Mountain Institute, "EVgo Fleet and Tariff Analysis," 2017, available at <u>https://rmi.org/wp-content/uploads/2017/04/eLab_EVgo_Fleet_and_Tariff_Analysis_2017.pdf</u>.

charging services in locations that will continuously have low, sporadic, or seasonal utilization, such as in rural areas and disadvantaged communities. Simply put, high demand charges coupled with low utilization can be an impediment to the widespread deployment of EV charging stations. In fact, the State's NEVI plan identifies demand charges as a barrier to business model viability for EV infrastructure deployment.⁹ The current demand-based commercial rate structures may not only slow down the deployment of NEVI stations, but also inhibit growth of third-party investments in DCFC. Therefore, ChargePoint recommends the Commission initiate a separate proceeding as expeditiously as possible, but at least prior to November 2023, to adopt rates that mitigate the adverse impact demand charges have on the deployment of EV charging to ensure sufficient infrastructure to accommodate EV adoption.

Additionally, Ohio's NEVI Plan suggests "siting studies" as an action to mitigate the problem of demand charges, implying that the state may prioritize EV infrastructure deployment in utility territories that have more favorable rates.¹⁰ Some utilities already offer rates that are more conducive to the deployment of EV chargers. For example, AEP Ohio offers a time-of-use ("TOU") rate option specifically for public DCFC and L2 EV charging sites with no demand charge.¹¹ However, the same station operating in The Illuminating Company's service territory would take service under the GS Secondary Rate and pay an estimated demand charge of

⁹ Ohio Electric Vehicle Infrastructure Deployment Plan ("NEVI Plan"), August 2022, available at <u>https://drive.ohio.gov/wps/wcm/connect/gov/36995384-a904-49a9-a8bc-</u>66dab2e0b7f7/DriveOhio NEVI Plan 2022-07-

28 updated links.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18 M1HGGI K0N0JO00QO9DDDDM3000-36995384-a904-49a9-a8bc-66dab2e0b7f7-okbRoby.

¹¹ AEP Ohio, Schedule PEV and GS- TOU, available at https://www.aepohio.com/lib/docs/ratesandtariffs/Ohio/August_2022%20_AEP_OhioTariff.pdf

\$17.15/kW.¹² All else being equal, the large difference in demand charges between the utility service territories greatly influences the economic feasibility for DCFC deployment.

Without intervention by the Commission to ensure EV-supportive rates are available across all utility service territories, NEVI-funded stations will likely be concentrated in areas where the rate structure happens to be favorable, rather than sites that best serve the needs of long-distance travelers in EVs, as the IIJA intends. Inconsistent rate offerings for DCFC may lead to long-term geographic disparities in EV charger deployment and access. For example, The Illuminating Company's service territory includes the Cleveland metro area, a convergence of interstate highways, a dense, urban population center, and a gap in the EV charger network.¹³ Unfavorable demand charge rate structures in such a key NEVI corridor will lead to a sub-optimal allocation of the federal funds, including NEVI, that underserves some areas' charging infrastructure needs while overserving others.

The availability of EV-supportive rates in Ohio, such as Duke Energy Ohio's technology neutral low-load factor rate that reduces a customer demand charge by up to 50%,¹⁴ indicates that intentional rate design can alleviate the demand charge burden while assuring recovery of prudently incurred utility costs, assuring fairness to all customer classes, and setting economically efficient prices that optimally allocate utility and customer resources.

¹² See The Cleveland Electric Illuminating Company, General Service – Secondary (Rate GS) Rate Schedule. The Secondary GS Rate includes both capacity charges and reactive demand charges, which, when blended to reflect the specifications of a typical NEVI site, would result in an effective \$17/kW demand charge rate. Tariff sheet is available at https://www.firstenergycorp.com/content/dam/customer/Customer%20Choice/Files/Ohio/tariffs/CEI-2011%20-%20Electric%20Service.pdf.

¹³ Ohio Department of Transportation, Ohio EV Charger Coverage Map, available at: https://experience.arcgis.com/experience/50b624b7aa4042aea9a1a8fbdc03da0c?views=View-24%2CView-9

¹⁴ Duke Energy Ohio, Rate DS, available at <u>https://desitecore10prod-cd.azureedge.net/-/media/pdfs/for-your-home/rates/electric-oh/sheet-no-40-rate-ds-oh-e.pdf?rev=c11a8311ba4746f3b973f479548ad6ab</u>.

Because EV chargers will contribute new load to the system, it is possible to design alternative rates without cost-shifting between customer classes or increasing costs to ratepayers. While rates are generally designed to cover the embedded cost of service, it may be appropriate for the Commission to consider EV rates that recover marginal costs to serve new EV load. In fact, a recent report by the National Association of Regulatory Utility Commissioners examining best practices for PURPA 111(d) implementation noted, "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."¹⁵

Overall, implementing appropriate rate designs that eliminate, defer, or reduce demand charges is key to unlocking increased investment in the EV charging infrastructure needed to support EV drivers in Ohio, as well as those travelling through the state. Therefore, ChargePoint urges the Commission to consider such long-term sustainable rate designs that more precisely allocate costs and benefits of EV load. Due to the various use cases (e.g., corridor fast charging, fleet, workplace, residential, etc.), there is no "one-size-fits-all" EV charging rate; therefore, utilities should have flexibility in developing appropriate solutions for their customers and can look to numerous examples of alternatives to traditional demand-based rate structures that are currently in effect. It is important to note that some of the alternative rate structures are "technology neutral" enabling any commercial and industrial customer to take service on the applicable rate structure whether the customer operates an EV charging station or not. ChargePoint highlights a few of these existing alternative rate structures below—which we regard as current best practice.

^{15 &}quot;Best Practices for Sustainable Commercial EV Rates and PURPA 111(d) Implementation," December 2022, available at https://pubs.naruc.org/pub/55C47758-1866-DAAC-99FB-FFA9E6574C2B

- a. <u>Dominion, VA: Low Load Factor Rate (Below 200 kWh per kW):</u> Dominion's GS-2 rate provides an all-volumetric, technology-neutral, low-load factor rate applicable to non-residential customers with a load factor below 200 kWh per kw.¹⁶ This rate effectively provides relief from prohibitive demand charges for low-load factor customers through an all-volumetric rate that has been designed to recover the utility's cost to serve. ChargePoint recommends the Commission consider alternative rate designs for low-load factor customers - such as the GS-2 rate which are designed to recover capacity costs that may traditionally be recovered through demand charges on an all-volumetric basis. Importantly, GS-2 is technology neutral enabling any low load factor customer to take service on the rate.
- **b.** <u>Evergy, Kansas: Business EV Charging Service:</u> Evergy's Business EV Charging Service provides a three-period time-of-use (TOU) rate option for non-residential customers for the exclusive use of charging electric vehicles.¹⁷ While this rate eliminates the demand charge and has been designed to recover the majority of costs through volumetric energy charges, it does include a small kW-based facility charge (\$2.32/kW).
- c. <u>Madison Gas and Electric, WI: Low Load Factor Rate (50%</u> <u>Demand Reduction)</u>: The Low-load factor rate provides a 50% discount in the demand charge for customers with load factors below 15%. This technology-neutral rate is targeted not only for DCFC facilities, but also other types of low-load-factor customers.¹⁸
- **d.** <u>Eversource, Connecticut: Electric Vehicle Rate Rider:</u> Eversource's EV Rate Rider converts the per-kW demand-based charges included in the Company's general service rate schedule into an equivalent per-kWh volumetric rate. This rider is available for all public EV charging stations, non-public DCFC, and non-public installations of four or more networked Level 2 chargers that are enrolled in a managed charging program.¹⁹

Eversource's EV Rate Rider essentially converts its traditional general service rate into an all-volumetric rate for customers providing EV

gs2.pdf?la=en&rev=65c74050107549f299d48689f738e948&hash=7CBE70107AE10C66B8EB5C5A1E248D12

https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=402247.

¹⁶ See Schedule GS-2, available at <u>https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/business-rates/schedule-</u>

¹⁷<u>https://www.evergy.com/-/media/documents/billing/kansas-central/other/bevcs-business-ev-charging-service-12062021_03282022.pdf</u>

¹⁸ See <u>https://www.mge.com/MGE/media/Library/pdfs-documents/rates-electric/E32.pdf</u>. See also

¹⁹ <u>https://www.eversource.com/content/docs/default-source/rates-tariffs/ct-electric/ev-rate-rider.pdf?sfvrsn=e44ca62_4</u>

charging services under the specific conditions outlined in the tariff. ChargePoint believes that this solution should be considered as it could provide a simple, effective solution for prohibitive demand charges. However, ChargePoint believes that solution would need to be modified to be inclusive of all commercial EV charging use cases.

e. <u>Arizona Public Service (APS): Rate Rider DCFC Pilot:</u> APS' Rate Rider DCFC provides an upper limit on the monthly billed demand for customers who are taking service on one of APS' E-32 TOU rates and where electricity is consumed only by public, DCFC stations.²⁰ The Rate Rider DCFC includes a load factor limit which the customer must be under to be eligible for participation, and includes three periods in which the load factor limit decreases, ultimately sunsetting in 2031.²¹ The monthly billed demand is limited through the following formula:

(Monthly Billed kWh) / [load factor limit*Days*24 hours]

While this rider does represent a step in the right direction to provide relief from demand charges, it is not ChargePoint's preferred solution for alternative rate designs for commercial EV charging customers. First, the pilot is only available to public DCFC stations. This fails to acknowledge that demand charges are also an impediment for the deployment of EV charging stations for other high demand, low-load factor use cases (e.g., fleet charging, clustered public Level 2 charging, clustered Multi-family Level 2 charging). Additionally, this solution does not provide a long-term, cost-based solution to a problem that will continue to persist. For example, low-load factor EV charging stations will continue to exist after the Rate Rider DCFC sunsets, even as EV adoption increases, to serve certain charging segments. While ChargePoint does believe there is some merit in considering a similar solution, it would need to be modified to ensure that all use cases are considered and provide a long-term solution.

B. Dedicate Utility Personnel to EV Charging Deployment

IIJA funding opportunities will result in significant increases in service requests for new

EV infrastructure and it will be vitally important for the utilities to internally scale to meet the increased demand. A lack of staff at the utilities dedicated to EV charging infrastructure

²⁰ See APS' Direct Current Fast Charging Pilot Schedule at <u>https://www.aps.com/en/Utility/Regulatory-and-Legal/Rates-Schedules-and-Adjustors#Business</u>, located under the Rate riders tab.

²¹ Period One is December 1, 2021, through June 30, 2025, with a load factor limit of 25%, Period Two is July 1, 2025, through June 30, 2028, with a load factor limit of 20%, and Period Three is July 1, 2028, through June 30, 2031, with a load factor limit of 15%.

installations could potentially lead to delays in processing the influx of new service requests. Increased utility personnel will also enable the Ohio Department of Transportation ("ODOT"), and other state agencies, to better engage and consult with the utilities on EV planning in a timely manner that meets deadlines set out by the Federal Highway Administration ("FHWA") and the U.S. Department of Transportation ("USDOT"). ChargePoint encourages increasing the utility workforce dedicated to the development of electric vehicle charging infrastructure to support third party deployments of EVSE, and to the identification of methods to accelerate utility system planning, investment, and deployment processes.

C. Utility Make Ready Programs

Additionally, ChargePoint recommends the Commission use utility make ready programs to support private investment in EV charging. Make ready programs are designed to support increased deployment of EV charging stations by offsetting the costs of make ready infrastructure incurred by site hosts who wish to install, own and operate L2 and/or DCFC stations on their property. In fact, make-ready costs for the customer are a large portion of total project costs, which present a significant barrier to private investment that can be alleviated by make ready programs.

Generally speaking, make ready infrastructure includes all the electrical and construction work necessary on the utility's side of the electric meter and the customer's side of the electric meter to make a site ready to connect EV charging equipment. By conducting this work, a utility prepares a site for installation of the charging station itself, which is purchased and operated by a site host. This aligns with the utility's key competency of installing and maintaining distribution assets, allowing utilities to support third party investment in EV charging rather than hindering the development of the competitive market. Overall, make-ready programs provide a reasonable pathway for utilities to ensure a long-term, sustainable market for EV charging services necessary to support increasing EV adoption.

The Commission has previously approved utility rebate programs for AES Ohio²² and AEP Ohio.²³ These rebate programs have proven to be effective in supporting deployment of EVSE throughout the Companies' service territory. Additionally, on September 14, 2019, Duke Ohio proposed an approximately \$15 million make ready program that would support the deployment of over 1,200 EV charging ports across multiple use cases.²⁴ ChargePoint generally supports each of these programs and believes that expansion and refinement of the existing programs would position Ohio to effectively utilize forthcoming IIJA funds. Further, ChargePoint urges the Commission to approve Duke Ohio's proposed make ready program, consistent with our recommended modifications to the program.²⁵ If the Commission declines to act on the pending application, we recommend the Commission encourage Duke Ohio to expeditiously file a new application for the Commission's consideration.

Importantly, utility make ready programs should not be viewed as a replacement for other available funding sources, such as IIJA funding and private third-party capital, but instead offer complimentary support to help deploy EV infrastructure across Ohio. Accordingly, the Commission should direct the State's utilities to develop and implement make ready programs as a fundamental first step for the Commission, the utilities, and the competitive market to ensure Ohio is well positioned to take advantage of available federal grants and loans under IIJA.

²² In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C.4928.143, in the Form of an Electric Security Plan, Case No. 16-1852-EL-SSO (April 2018).

²³ In the Matter of the Application of the Dayton Power and Light Company for Approval of its Plan to Modernize its Distribution Grid, Case No.18-1875-EL-GRD (June 2021).

²⁴ In the Matter of the Application of Duke Energy Ohio, Inc. for Authority to Adjust PowerForward Rider, Case No. 19-1750-EL-UNC.

²⁵ Comments of ChargePoint, Inc. (Filed April 15, 2020) and Reply Comments (Filed May 15, 2020), Case No. 19-1750.

D. Line Extension Policies

Further, ChargePoint recommends the Commission provide long-term support to utility customers seeking to install EV infrastructure by creating permanent EV line extension policies. Permanent EV line extension policies would authorize the utilities to rate base the make ready infrastructure on the utility side of the meter needed to supply EV charging stations, putting EV infrastructure on par with other utility distribution investments. By establishing a rule to treat distribution infrastructure on a rolling basis through general rate cases (GRCs) rather than through sequential regulatory processes, the Commission will critically reduce deployment timelines and ensure the utilities' ability to meet future demand for charging infrastructure. This would provide administrative and economic efficiencies, support the competitive EV charging market, enable customer choice, and ultimately promote rapid deployment of EV infrastructure.

As mentioned in ChargePoint's previous comments, a permanent EV line extension policy in Ohio would ensure Ohio follows other national leaders in EV policies and deployment. For instance, on January 18, 2022, New Jersey Governor Phil Murphy signed A2360/S3285 into law (P.L.2021, c.441), establishing that electric public utilities are authorized to install any distribution infrastructure necessary to support the installation of L2 electric vehicle charging stations at multifamily properties. Further, the legislation has determined that, "prudent costs incurred by the electric public utility shall be deemed consistent with the provisions of R.S.48:2-27 governing the extension of public utility facilities," and that the "utility shall be entitled to full and timely recovery of all such prudently incurred costs, provided that the cost of any electric vehicle charging station or installation thereof is not included."²⁶ This legislation will create a clear pathway for

²⁶ New Jersey A2360/S3285 P.L. 2021, c.441 requires electric public utility to charge residential rate for service used by residential customer for electric vehicle charging at charging stations within certain designated parking spaces, available at: https://www.njleg.state.nj.us/Bills/2020/A2500/2360_R3.HTM

New Jersey's utilities' ability to expand access to EV charging for multi-unit dwellings across the state. By streamlining the processes for the expansion of distribution infrastructure necessary to make multifamily properties EV ready, New Jersey will be to meet its transportation electrification goals efficiently, effectively, and promptly.

Similarly, the CPUC's EV Infrastructure Rules have enabled California's investor-owned

utilities to deploy all electrical distribution infrastructure on the utility side of the customer's meter

for all EV charging station infrastructure. The CPUC's October 7, 2021, resolution established

that,

Per the direction of the Public Utilities Code (PU Code) Section 740.19, these costs related to utility-side distribution infrastructure that support EV charging will be recovered through the IOUs' [general rate cases] GRCs...With the approval of this Resolution the IOUs will, moving forward, track these costs within a Memo Account and seek approval of these costs within a GRC.^{27,28}

Text of Sec. 1(e):

²⁷ Resolution E-5167 Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric request approval to establish new Electric Vehicle (EV) Infrastructure Rules and associated Memorandum Accounts pursuant to Assembly Bill 841, Public Utilities Commission of the State of California, Resolution E-5167 at 3 (Oct. 7, 2021).

²⁸ California Public Utilities Code § 740.19 states:

The purpose of this section is to change the commission practice of authorizing the electrical distribution infrastructure located on the utility side of the customer meter needed to charge electric vehicles on a case by-case basis to a practice of considering that infrastructure and associated design, engineering, and construction work as core utility business, treated the same as other distribution infrastructure authorized on an ongoing basis in the electrical corporation's general rate case.

An electric public utility, upon the request of an applicant for electric service at a planned real estate development, shall install, up to the point of utility delivery, any distribution infrastructure necessary to facilitate the future installation of an electric vehicle charging station that provides Level 2 charging capability, under rates, terms and conditions as established by the board. Any prudent costs incurred by the electric public utility shall be deemed consistent with the provisions of R.S.48:2-27 governing the extension of public utility facilities, subject to any maximum cost as may be established by the board. The electric public utility shall be entitled to full and timely recovery of all such prudently incurred costs, provided that the cost of any electric vehicle charging station or installation thereof is not included.

Notably, the Natural Resources Defense Council (NRDC) has estimated that the CPUC's Rule will reduce the costs of installing EV charging stations by approximately 25%.²⁹

These policy examples from New Jersey and California offer a potential roadmap for Ohio.³⁰ Implementing a similar policy could significantly "promote affordable and equitable EV charging options for residential, commercial, and public EV charging infrastructure" and "accelerate third-party investment in EV charging."

E. Additional Rate Design Consideration and Demand Response

In the previous IIJA docket, AEP Ohio noted that "utilities are uniquely positioned to [use] incentives and price signals for EV charging to encourage EV load management that benefits, rather than burdens, the electric grid."³¹ ChargePoint agrees and recommends the Commission direct utilities to develop TOU rate options, managed charging programs, and/or demand response pilot programs. These strategies are used to incentivize energy consumption, specifically EV charging, during off-peak periods when possible, decreasing peak demand pressure on utility assets. This can avoid the need for additional capacity and grid infrastructure and thus maximize previous ratepayer investment in the existing infrastructure and also create downward pressure on rates for current ratepayers. In sum, hen designed appropriately and with flexibility for drivers' needs, EV TOU rates are an effective mechanism to incentivize residential and commercial customers' charging behavior to occur off-peak.

Similarly, managed charging can encourage charging behavior that is beneficial for the grid and all ratepayers. While passive managed charging relies on customer behavior to affect

²⁹ Miles Muller and Max Baumhefner, CA Approves New Rules to Support EV Charging Infrastructure (Oct. 2021), available at <u>https://www.nrdc.org/experts/miles-muller/ca-approves-new-rules-support-ev-charginginfrastructure</u>.

³⁰ For instance, in Ohio, this could be accomplished by adjusting customer contributions under existing Contributions in Aid of Construction policies.

³¹ Additional Comments of the Ohio Power Company "AEP Ohio," Case No. 22-755-AU-COI.

charging patterns, active managed charging enables a centralized entity or the customer to take direct control of charging loads. An example of passive management could involve notifying users and requesting a certain behavior with or without an incentive. On the other hand, an active managed charging program could limit the rate of charge temporarily or pause charging during times of high demand without materially impacting the overall EV charge. EVs that are parked for long periods of time—such as at customers' homes or workplaces—are ideal participants in managed charging programs. These strategies will be essential to maximize the benefits of EVs, especially for ratepayers, as EV charging load increases.

The Commission should also consider the use of embedded EVSE submeters to measure the energy usage from charging stations rather than requiring a separate meter or installation of a utility-owned submeter. Smart EVSE, has embedded metering capabilities. Two of the key benefits of using embedded metering technologies provided by smart charging stations include substantial cost and time-savings because there is no need to purchase or install a second meter. This enables near-term participation in utility EV TOU rate programs, dynamic rate programs, and managed charging programs. For the customer, the use of embedded metering provides a seamless experience utilizing the built-in capabilities of the customer's smart charging station investment to communicate directly with the utility, and in some cases helping the customer to realize additional fuel cost savings. Further, the embedded metering capabilities that competitive EV charging solution providers offer have been vetted for accuracy and are currently in use to support utility rate billing programs in several jurisdictions across the U.S., including Baltimore Gas & Electric ("BG&E") in Maryland³² and Xcel Energy in Minnesota³³ and Wisconsin^{.34} Additionally, California recently became the first state to allow EVSE owners to measure the charging station's energy usage through submetering, rather than installing more costly secondary utility meters.³⁵

V. <u>CONCLUSION</u>

ChargePoint appreciates the Commission's consideration of these comments regarding how Ohio can implement PURPA standards to accelerate deployment of EV charging infrastructure and to support a long-term sustainable and competitive market for the installation and operation of electric vehicle charging infrastructure in Ohio. ChargePoint looks forward to participating and contributing to future discussions with other interested parties and stakeholders on how to effectively use competitive forces to efficiently utilize federal funding to achieve widespread beneficial transportation electrification.

Respectfully submitted on behalf of CHARGEPOINT, INC.

Dyland F. Borchers Kara H. Herrnstein BRICKER & ECKLER LLP 100 South Third Street Columbus, OH 43215-4291 Telephone:(614) 227-2300 Facsimile: (614) 227-4914 E-mail: <u>dborchers@bricker.com</u> kherrnstein@bricker.com

³² MD PSC Docket No. 9478, Order No. 88997 (January 14, 2019) ("the Commission directs the Utilities to utilize the "smart" features of such technology to their maximum potential, like advanced metering, to develop and implement time variant rate, load management, and demand response programs").

³³ See Northern States Power Company, Order Approving Pilot Program, Minn. PUC Docket No. E002/M-17-817 (May 9, 2018).

³⁴ See Northern States Power Company-Wisconsin, Final Decision, Wisc. PSC Docket No. 4220-TE-104 (July 16, 2020).

^{35 &}lt;u>https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-decision-makes-california-first-state-in-the-nation-to-allow-submetering-of-electric-vehicles.</u>

and

Matthew Deal Manager, Utility Policy ChargePoint, Inc. 202.528.5008 matthew.deal@chargepoint.com

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Summary: Comments of ChargePoint, Inc. electronically filed by Teresa Orahood on behalf of Dylan F. Borchers