

STATE OF KENTUCKY

BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

CASE NO. 2019-00271

In the Matter of Application by Duke Energy)	
Kentucky, Inc.'s Application for 1) An)	
Adjustment Of Electric Rates; 2) Approval)	Comments of
of New Tarriffs; 3) Approval of Accounting)	ChargePoint, Inc.
Practices to Establish Regulatory Assets and)	
Liabilities; and 4) All Other Required)	
Approvals and Relief)	

Consistent with the September 13, 2019 order of the Kentucky Public Service Commission (“Commission”) in the above-captioned proceedings, ChargePoint, Inc. (“ChargePoint”) thanks the Commission for the opportunity to provide these comments regarding proposed transportation electrification pilots (“ET Pilots”) submitted by Duke Energy Kentucky, Inc. (“Duke Energy” or “the Company”) on September 3, 2019.¹

BACKGROUND

The Company’s ET Pilots come before the Commission at a point of significant growth in the electric vehicle (“EV”) market in Kentucky and nationally. In reviewing utility initiatives in the EV space, state utility commissions across the country are considering how best to prepare for and leverage the benefits of greater electrification of the transportation sector.

ChargePoint is the leading EV charging network in the world, with charging solutions for every charging need and for all of the places that EV drivers go: at home, work, around town, and

¹ See Duke Energy Kentucky, Inc.'s Application for Authority to Adjust Electric Rates, Approval of New Tariffs, Approval of Accounting Practices to Establish Regulatory Assets and Liabilities and for All Other Required Approvals and Relief, Kentucky Public Service Commission Case Number: 2019-00271 (Sept. 3, 2019) (“Application”). ChargePoint takes no position on other issues raised in the Application unrelated to the ET Pilot.

on the road. With more than 105,000 places to charge in the network, including over 105 public stations in Kentucky, ChargePoint has thousands of customers – including workplaces, cities, retailers, apartments, hospitals, and fleets. ChargePoint’s customers in Kentucky include the Fast Park, BMW, TVA, Maker’s Mark, Jaguar Land Rover, and AAA.

ChargePoint is the only charging technology company on the market that designs, develops, and manufactures hardware and software solutions across every EV market segment. Hardware offerings include Level 2 (“L2”) and DC fast charging products, and ChargePoint provides a range of options across those charging levels for specific use cases, including light duty and bus fleet, multi-unit dwellings, home, destination workplace, and more. ChargePoint’s software and cloud capabilities enable site hosts to control the charging services onsite and provide easy use for EV drivers, including features like waitlists, access controls, charging analytics, and real-time availability. Leading EV charging hardware providers, automakers, and other partners rely on the ChargePoint network to make charging station details available in mobile apps, online, and in navigation systems for popular EVs. ChargePoint drivers have completed more than 69 million charging sessions, saved upwards of 83 million gallons of fuel, and driven more than 1.9 billion electric miles.

ChargePoint’s primary business model consists of selling its smart, networked charging station equipment directly to site hosts, with site hosts owning and operating the charging stations on their properties. For a subscription, ChargePoint provides charging network services, or data-driven and 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.

COMMENTS

ChargePoint offers these comments in support of a significant portion of the Company's application and requesting modification as to one aspect only. ChargePoint applauds Duke Energy's commitment to supporting EV charging infrastructure and agrees with the underlying intent of the ET Pilots.

The balance of these Comments are laid out as follows. First, ChargePoint summarizes the Company's proposed ET Pilot programs. Second, ChargePoint details best practices for regulated utility investment in electric vehicle charging infrastructure. Third, ChargePoint will demonstrate how limited elements of the Company's proposed programs do not align with best market practices, and will show how specific features of the Company's proposed ET Pilots will, however inadvertently, *undermine* the competitive market for EV charging in Kentucky, increase costs and risks to ratepayers, and restrict choices for customers.

Last, ChargePoint will recommend modifications to the ET Pilots that will effectuate the Company's goals with respect to the EV Fast Charging and EV Transit Bus Charging, without presenting the same level of risk to Kentucky ratepayers or to the competitive markets and will also be reflective of national best practices. Specifically, ChargePoint recommends that the Company be able to make capital investments up to the stub of the chargers for the as-proposed EV Fast Charging and EV Transit Bus Charging components of the Pilot, and provide rate-based rebates for the chargers themselves, allowing for customer choice and operation of same.

I. The Company's Proposals For Transportation Electrification Equipment

The Company proposed three-year ET Pilots contain programs designed for (1) charging management, (2) transit electrification, and (3) public charging expansion. There are a total of five offerings within these program categories, which are summarized below:

1. Non-Road Electrification Incentive Program: The Company proposes to create a mechanism to provide funding for incentives for up to (45) electric fork trucks at \$1,500 each; (45) electric standby truck refrigeration (eTRU) units at \$1,500 each; (100) airport ground service equipment (GSE) at \$1,000 each; and (5) airport ground power units (GPU) at \$15,000 each.² The customer must install a charging station to serve equipment deployed under this program.
2. Residential EV Charging Program: The Company proposes to provide a rebate of \$1,063 to support installation of smart, networked L2 charging stations for up to 300 residential customers.³ Customers will also be eligible to receive up to an additional \$500 utility EV load-managed incentive, in the form of quarterly payments of \$41.66 over the course of the 3 years, in exchange for participating in load management events.
3. Commercial EV Charging Incentive Program: The Company proposes a \$2,500 incentive for customers for the purchase and installation of a Level 2 charging station of their choice. Incentive allocations will be targeted at (50) for 24/7 publicly accessible units, (50) fleet units, (30) private workplace units, and (30) multi-unit dwelling units. The Company requires installation of a separate meter to measure connected EV charging station usage.

² See *id.* at 12-13.

³ See Application at 9-10.

4. Fast Charging Program: The Company intends to install, own, and operate a network of up to 10 fast chargers across approximately 5 individual locations in its service territory. The Company will offer fast charging services in exchange for a Fast Charge Fee of \$0.333596 per kWh.⁴ As described below, ChargePoint requests modification to the utility ownership and operation aspect of this proposal.
5. EV Transit Bus Charging Program: The Company proposes to install and own 5 charging stations for transit bus operators to operate on their properties. The Company requires customers to install EV charging behind separate meters and must take service on the customer's existing commercial rate.⁵ As described below, ChargePoint requests modification to the utility ownership and operation aspect of this proposal.

II. Best Practices and Support For Utility Investment in EV Charging Infrastructure

Nationally, utilities in many jurisdictions have supported the adoption of electric vehicles through programs that enable the build-out of networked charging infrastructure across a range of use cases. Those programs can significantly lower barriers to EV charging infrastructure deployment and accelerate EV charging markets overall. Most importantly, utility investment in EV charging infrastructure can offer wider choices for customers while catalyzing and fostering a long-term, scalable, and competitive market for EV charging equipment and networks. To that end, ChargePoint strongly supports utility investment in EV charging infrastructure that seeks to achieve those outcomes.

ChargePoint's experience as the leading provider of EV charging infrastructure in the United States has informed its recommendations regarding regulated utility investments in EV

⁴ See *id.* at 10-13.

⁵ See *id.* at 13-15.

charging infrastructure. As a result of its experience deploying charging infrastructure throughout the United States and Canada, ChargePoint has observed best practices to support successful implementation of utility programs that align the goals of the utility, competitive market participants, and most importantly – end customers. Working with utilities across the country, we have seen what works, and just as importantly, what does not, in terms of supporting robust, sustainable EV infrastructure build outs. Based on this experience and observation, ChargePoint recommends approval of programs that promote the following best practices related to deploying EV charging infrastructure:

1. The ability for site hosts to choose among multiple, qualified vendors of charging equipment and networks.
2. The ability for site hosts to have operational control of EV charging infrastructure located on their properties, including controls over pricing of the charging service provided to drivers. Site hosts may also have control of the make-ready infrastructure to connect the station at the stub, as they would in the absence of a utility program.
3. Site hosts should have some “skin in the game,” meaning they should make some contribution to the EV charging infrastructure in addition to incentives or supplemented project funding provided by utilities, grants, or other sources.

From these elements, it is apparent that the most critical topics for the Commission to consider relate to (1) the variety of technology choices available to the market, (2) the degree to which site hosts can make choices about how to operate the charging stations, and (3) the impact of spurring private investment alongside the deployment. In the current EV charging market, there are charging hardware providers and national network providers – similar to mobile phones and cell carriers – and site hosts choose from both hardware and network providers to get the suite of smart features to fit their circumstances. A charging network is a cloud-based platform that

connects to charging hardware, collects data on charging sessions, and enables advanced features and controls to manage charging stations. Just like a customer chooses the smart phone that they want *and* chooses the carrier that they want, the choice of both EV charging hardware and network makes for a cohesive customer experience. Notably, in the EV charging market, charging networks provide a vast array of smart features and functions that differ from network to network, making the choice of network provider arguably more consequential to an EV charging customer compared to their choice of hardware provider.

The right model for utility investment in EV charging markets can take many forms, and no single solution is appropriate for every jurisdiction and use case. Moreover, each segment of the charging market – fleets, multi-unit dwellings, retail establishments, workplaces, municipalities, and corridors – has a different set of circumstances to consider when deciding upon the most effective investment strategy. However, ChargePoint notes that among the models of utility investment that have been approved by Commissions around the country, two models have emerged as the dominant forms of successful utility investment for EV charging infrastructure: make-ready and rebates. Make-ready programs direct investment toward the installation of charging hardware, and more specifically, installing and maintaining the supporting electrical infrastructure on the distribution side as well as the customer side of the meter, up to the connection point for the charging station, which is purchased and operated by the site host/customer. Rebate programs provide incentives to site hosts, which are used toward the purchase and/or installation of qualifying EV charging stations onsite.

Importantly, make ready and rebate programs satisfy the best practices of utility investment, and can achieve the same or greater buildout than utility ownership of charging stations. Make ready and rebate models have appeared in programs across the country, including

approved programs in California⁶, Nevada⁷, Utah⁸, Ohio⁹, Massachusetts¹⁰, New York¹¹, Rhode Island¹², Maryland¹³, Michigan¹⁴, Missouri¹⁵, Pennsylvania¹⁶, and in programs proposed in

⁶ See California Public Utilities Commission. Application 17-01-020. “Transportation Electrification Proposals Pursuant to SB 350.” 2018. (available at <http://www.cpuc.ca.gov/sb350te/>).

⁷ See Public Utilities Commission of Nevada. Docket No. 18-02002. “Joint Application of Nevada Power Company d/b/a NV Energy [...] Electric Vehicle Infrastructure Demonstration Program for Program Year 2018-2019.” June 27, 2018. (available at http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2015_THRU_PRESENT/2018-2/31126.pdf).

⁸ See Public Service Commission of Utah. Docket No. 16-035-36. “In the Matter of the Application of Rocky Mountain Power to Implement Programs Authorized by the Sustainable Transportation and Energy Act.” June 28, 2017. (available at <https://pscdocs.utah.gov/electric/16docs/1603536/2949541603536ptrao6-28-2017.pdf>).

⁹ See Public Utilities Commission of Ohio. Docket No. 16-1852-EL-SSO. “In The Matter of the Application of the Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143.” April 25, 2018. (available at <http://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=1a7d9c25-92bc-42e4-896d-c888c1a015ac>).

¹⁰ See Massachusetts Department of Public Utilities. Docket 17-05. “Order Establishing Eversource’s Revenue Requirement.” November 30, 2017. (available at <https://eeaonline.eea.state.ma.us/EEA/FileService/V1.4.0/FileService.Api/file/FileRoom/dehehcjj>).

¹¹ See New York Public Service Commission. Matter No. 17-00887. “Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service.” (available at <http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=17-E-0238>).

¹² See Rhode Island Public Utilities Commission. Docket No. 4770. “The Narragansett Electric Co. d/b/a National Grid - Application for Approval of a Change in Electric and Gas Base Distribution Rates.” (available at <http://www.ripuc.org/eventsactions/docket/4770page.html>).

¹³ See Maryland Public Service Commission. Case No. 9478. “In the Matter of the Petition of the Electric Vehicle Workgroup for Implementation of a Statewide Electric Vehicle Portfolio.” (available at <https://www.psc.state.md.us/search-results/?keyword=9478&x.x=16&x.y=13&search=all&search=case>).

¹⁴ See Michigan Public Service Commission. Case No. U-20134. “In the matter of the application of Consumers Energy Company for authority to increase its rates for the generation and distribution of electricity and for other relief.” (available at <https://mi-psc.force.com/s/case/500f0000009fPPSAA2/in-the-matter-of-the-application-of-consumers-energy-company-for-authority-to-increase-its-rates-for-the-generation-and-distribution-of-electricity-and-for-other-relief>).

¹⁵ See Missouri Public Service Commission. Case No. ET-2018-0132. “In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of Efficient Electrification Program. (available at https://www.efis.psc.mo.gov/mpsc/commoncomponents/view_itemno_details.asp?caseno=ET-2018-0132&attach_id=2018012294).

¹⁶ See Pennsylvania Public Utilities Commission. Docket Number R-2018-3000124. “Pa. PUC v. Duquesne Light Company.” (available at <http://www.puc.pa.gov/pdocs/1586084.pdf>).

Washington.¹⁷ Make ready and rebate programs enable site host choice of equipment and networks, enable site hosts to control charging infrastructure on their properties, and enable site hosts to have skin-in-the-game and offset program costs to deploy EV charging, all of which enhance the effectiveness of utility programs in electric transportation and amplify the impact of ratepayer funding.

III. Fast Charging and EV Transit Bus Charging Program Negatively Impact Existing Competitive Markets, Restrict Customer Choices, and Slow Private Investment

As noted previously, ChargePoint strongly encourages utility investment in charging infrastructure and electrification programs and agrees with the Company's intent to accelerate deployment and adoption across multiple segments. However, ChargePoint finds that aspects of the Company's proposal in the Fast Charging and EV Transit Bus Charging programs would have an adverse impact on Kentucky's existing competitive EV charging market and are misaligned with best practices of utility investment in EV charging infrastructure. Notably, neither of those proposed offerings explicitly provide the participating customer a choice for EV charging networks. Furthermore, the Fast Charging program does not enable participating customers to operate EV charging stations located on their own properties. These choice and control elements are options that customers in the Kentucky EV charging market currently have but would be deprived of if the ET Pilots are approved by the Commission without any amendments.

While ChargePoint agrees with the Company that projections show that more EV charging infrastructure buildout is needed, and that certain segments would benefit from additional investment or incentives, ChargePoint believes that this does not require the utility to bypass the existing market and local site hosts in order to own and operate such assets, thus limiting choices

¹⁷ See Washington Utilities and Transportation Commission. Docket No. UE-180877. Tariff Revision – Puget Sound Energy. (available at <https://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=180877>).

for consumers. ChargePoint strongly believes that maintaining competitive market forces and empowering local site hosts throughout the program will more effectively facilitate the expansion of EV charging infrastructure in Kentucky. It is for this reason that ChargePoint supports the incentive-based programs for Non-Road Electrification, Residential EV Charging, and Commercial EV charging, which preserve elements of customer choice and customer control of charging assets.

Accordingly, as part of a limited pilot effort, the Company, which is a regulated utility, should not be foundationally positioned to occupy a direct and substantial place in the now-developing EV charging market, as it proposes in the Fast Charging program. This program may effectively predetermine long-term market outcomes, capture prime locations for charging infrastructure, and slow the broader entrance of potential or actual competitive market participants. The Fast Charging program proposal would likely effectively predetermine Kentucky's dominant EV charging network vendor for the foreseeable future at an early stage in the competitive market's growth. In offering a single market solution, installed on site hosts' properties at no cost, the Company's proposal would chill private investment, rather than stimulate broader market participation.

As described further below, the Company's proposed ET Pilot would effectively create a single dominant company-operated EV charging network throughout the state of Kentucky with inflexible pricing policies that are either out sync with competitive market pricing or artificially adjusted to meet such competitive market pricing. Moreover, as described in Section IV, ChargePoint believes that the Company could (and should) amend these offerings to include participating site host choice of charging networks and enable site host control of charging assets onsite, and in so doing, enhance the Company's stated goals and outcomes. Making these amendments would not diminish the benefits associated with transportation electrification

investment and would accelerate the expansion of the competitive market for charging infrastructure.

The market for EV charging is inherently competitive and active in every state, with diverse, evolving business models and direct sales of equipment or related products or services to site hosts. One of the ET Pilot's stated goals is to stimulate competitive market activities. If the Company is permitted to operate EV charging in a monopolistic fashion alongside a competitive market, as proposed in the EV Fast Charging and EV Transit Bus Programs, it would potentially push away potential or actual competitors in the market. Duke Energy likely would approach the industry's primary potential customers and prime locations to offer free products, cutting off sales opportunities for competitors not selected for the pilot. Significantly, in assessing a near identical ET Pilot proposal by the Company in South Carolina, the South Carolina Office of Regulatory Staff ("ORS") commented that the Company's proposed Fast Charging stations "may discourage cost-effective investment by the private sector."¹⁸

The Company also fails to show how utility operation would be more successful than the incentive-based models proposed in other programs in the ET Pilot. In fact, in an April 17, 2019, filing submitted before the Florida Public Service Commission, where Duke Energy Florida ("DEF") pursued a similar program for utility operation of EV charging stations at multi-family sites, DEF "found it challenging to meet the minimum number of [EV charging stations]" approved for that segment.¹⁹ DEF subsequently revised the proposed number of EV charging stations at

¹⁸ See Comments of the South Carolina Office of Regulatory Staff, at 10. Docket No. 2018-321-E and 2018-322-E (May 20, 2019) ("ORS Comments") (available at <https://dms.psc.sc.gov/Attachments/Matter/b79a6140-a911-4953-a026-3d922df00cdc>).

¹⁹ See Duke Energy Florida's Motion to Approve Re-Allocation of Electric Vehicle Charging Station Pilot Segments, at 1, Docket No. 20170183-EI (Apr. 19, 2019) ("DEF Motion") (available at <http://www.psc.state.fl.us/library/filings/2019/03761-2019/03761-2019.pdf>).

multi-family sites downward after receiving only seven applications for a program initially designed to deploy 325 charging ports.²⁰ DEF's experience with respect to multi-family sites in Florida thus highlights the limits of effective penetration of this potential market by mandating utility operation of EV charging infrastructure with only one EV charging network offering.

Site hosts invest in EV charging stations to attract EV drivers to their sites, and through controls over access and pricing, hosts can optimize charging station utilization and enhance the EV driver experience. However, under the Company's Fast Charging offering, utility-operated EV charging stations would offer regulated tariff pricing to drivers, either under a company-designed rate that the Company claims is comparable to a "competitive pricing" average price. In contrast to the existing competitive market offerings, site hosts would have no role in managing EV charging equipment on their sites. As a result, the proposed rates to drivers under the Fast Charging program may: (a) be unattainable when compared with pricing to drivers set by competitive market providers and non-participating site hosts; (b) inhibit optimal utilization of existing and new charging stations; and (c) severely limit pricing flexibility and models across various use cases by establishing the "regulated pricing" model. It would be helpful to hear an explanation from the Company as to why it would prefer to have regulators fix a price as an average of all other rates, or why that fixed rate should be preferred over the rates that could be set competitively by a site host participating in a well-designed program. Notably, in South Carolina, Staff also recognized how regulated pricing to drivers would be problematic and have negative market impacts.²¹

To the greatest extent possible, utility investment in EV charging infrastructure should align with and attract private investment, and achieve minimum maintenance and operation

²⁰ See DEF Motion at Attachment A.

²¹ See ORS Comments at 10.

standards by developing programs that require site hosts, rather than the Company, to be materially and financially invested in the success of station deployments. The Residential EV Charging, Commercial EV Charging, and Non-Road Electrification rebate programs do not propose to cover all costs of the affected electric vehicles and associated charging infrastructure, but rather appropriately intend to only lower cost barriers for installing and/or operating these technologies. However, the EV Fast Charging and Electric Transit Bus Charging programs do not require any private investment in EV charging infrastructure for placing a charging station at a site. ChargePoint believes that requiring private investment in EV charging infrastructure in conjunction with utility investment will motivate site hosts to invest in EV charging infrastructure and optimize ratepayer funding to expand the ET Pilot overall by expanding competitive offerings in a less-regulated market.

IV. Recommended Amendments to the ET Pilots

ChargePoint recommends that the Commission address the below elements of the Company's proposed ET Pilots, and thereby ensure that the competitive markets for EV charging equipment and services be fostered and supported in Kentucky, and not traded-in for a market dominating, rate-regulated solution determined by the Company. In summary, ChargePoint respectfully advances the following suggested amendments to the ET Pilots:

1. Enable eligibility of multiple EV charging networks, in addition to multiple EV charging equipment vendors, selected by participants in all offerings to reinforce competitive markets and provide a wider range of customer and end-user choices; and
2. Enable site hosts under all offerings to operate stations on their sites, and to determine pricing to drivers to ensure competition in the EV charging marketplace and allow for optimized utilization of stations and the driver experience.

ChargePoint believes that employing make ready or rebate models across all offerings in the ET Pilot could successfully incorporate these elements into the EV Fast Charging and EV Transit Bus Programs. In addressing customer choice and expanding eligibility to multiple networks, the Commission should open programs to broader participation by current providers of equipment or network services. With greater industry participation, the ET Pilots have the potential to accelerate deployments, as more network and hardware providers will see new opportunities to target and engage in the Kentucky market. By allowing site hosts to control selection of equipment and providers and to control pricing to drivers on their properties, the Commission would keep market pricing competitive while also allowing site hosts to tailor charging activities to align with their business goals and operations. The Commission would also prevent development of a dual-market, partly comprised of competitively-priced solutions and partly comprised of regulated-priced solutions, which could distort the EV market long-term, and likely unjustly favor utility offerings over non-utility offerings.

ChargePoint further submits that any capital investment designated by the Company for direct investment in Fast and Transit Bus Chargers should be re-routed to the other components of its proposed Pilot, such that the Company's overall capital investment in EV infrastructure to support customers shall not be affected.

CONCLUSION

ChargePoint thanks the Commission for the opportunity to comment on the Company's ET Pilots, and for its consideration of transportation electrification programs generally. ChargePoint respectfully requests the Commission's consideration of ChargePoint's proposed amendments to the ET Pilots recommended herein and the adoption of pilots that will achieve program goals by supporting a long-term sustainable and competitive market for the installation and operation of electric vehicle charging infrastructure in Kentucky. ChargePoint looks forward to participating

and contributing to future discussions with other interested parties and stakeholders on how to effectively use competitive forces to achieve beneficial transportation electrification.

Respectfully submitted this 13th day of December, 2019.

NELSON MULLINS RILEY & SCARBOROUGH LLP

A handwritten signature in blue ink, appearing to read "Tom Hancock", is written over a horizontal line.

Thomas M. Hancock, Esquire
(KY Bar No. 97428)

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CERTIFICATE OF SERVICE

The undersigned attorney for ChargePoint, Inc. hereby certifies that he transmitted Comments of ChargePoint, Inc. for electronic service upon the parties of record in this proceeding by electronic mail and that there are no parties excused from participation by electronic means, and that an original and one copy of the filing in paper will be delivered to the Commission within two (2) business days.

This 13th day of December, 2019.



Thomas M. Hancock, Esq.