

STATE OF NORTH CAROLINA

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1197

DOCKET NO. E-7, SUB 1195

In the Matter of Application by Duke Energy)	
Carolinas, LLC and Duke Energy Progress, LLC)	REPLY COMMENTS OF
For Approval of Proposed Electric Transportation)	CHARGEPOINT, INC.
Pilot)	

Consistent with the June 14, 2021, Order of the North Carolina Utilities Commission (“Commission”) in these proceedings, as extended by the Commission’s Orders dated July 8 and August 18, 2021, ChargePoint, Inc. (“ChargePoint”) thanks the Commission for the opportunity to provide these Reply Comments regarding the proposed Phase II Electric Transportation Pilot Programs (“Phase II Pilot”) submitted by Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”) (together, the “Companies”) on May 24, 2021.¹ On July 29, 2021, ChargePoint submitted initial comments on the Companies’ proposed Phase II Pilot programs, in light of the Commission’s November 24, 2020, *Order Approving Electric Transportation Pilots, In Part*, in the above captioned Dockets (the “ET Order”). ChargePoint continues to advocate for the recommendations made in its initial comments, which can be summarized as follows:

- The Commission should not approve the Companies’ Phase II Pilots;
- Several elements of the Phase II Pilot Programs would not only delay the development of a long-term, sustainable, and competitive market for EV charging in North Carolina, but are also inconsistent with the requirements of the Commission’s ET Order;
- The Companies’ Phase II Pilot Programs are largely extensions of the Phase I Electric Transportation pilots previously approved by the Commission, which have not been completed yet;

¹ See Duke Energy Carolinas, LLC and Duke Energy Progress, LLC’s Request for Approval of Phase II Electric Transportation Pilot Programs Docket Nos. E-2, Sub 1197 and E-7, Sub 1195 (May 24, 2021) (“Application”).

- The Phase II Pilot programs as proposed fail to meet the criteria set by the Commission in its ET Order, and also fail to build upon the Commission-approved Phase I Pilots.
- However, should the Commission be inclined to approve the Companies' proposals, ChargePoint respectfully recommended the following specific modifications intended to further support increased competitive deployment of EV charging infrastructure throughout the Companies' service territories in North Carolina:
 - The Commission should direct the Companies to revise their Public Level 2, MFD and Highway Corridor Pilot Programs to expressly allow third-party, turn-key solutions;
 - The Commission should direct the Companies to revise all Phase II Pilot programs to explicitly provide site hosts with choices of EVSE hardware and network software;
 - The Commission should direct the Companies to revise all Phase II Pilot programs to explicitly empower site hosts to independently establish pricing and pricing policies for EV charging services;
 - The Commission should require any EV chargers installed through the EVSE Tariff Pilot to be networked; and,
 - The Commission should direct the Company to modify the Public Level 2, MFD, and the Public DCFC program requirements to require EVSE to accept credit card payment via chip or contactless card technologies.

In these Reply comments ChargePoint further recommends that the Commission:

- Require the Companies to develop and propose a portfolio of programs that comply with the Commission's ET Order;
- Direct the Companies to revise the EVSE Tariff Pilot to require networked EVSE;
- Reject the recommendation to modify the Multi-Family Level 2 program eligibility to include Level 1 charging;
- Direct the Companies to establish 50 kW as the minimum DCFC power level, instead of 150 kW and allow sites to be future-proofed; and,
- Direct the Companies to submit alternatives to traditional demand-based tariffs, for Commission approval within 6 months from the date of the Commission's order disposing of the Application in this proceeding.

REPLY COMMENTS

I. The Commission should direct the Companies to develop and propose a balanced portfolio of programs that Comply with the Commission's ET Order

In their initial comments, the Alliance for Transportation Electrification ("ATE") expresses its "strong support [for] all of the proposed programs in Duke Energy's May 24, 2021, Phase II Electric Transportation Pilots, as comprising a well-designed and balanced portfolio that

logically follows the Commission's November 24, 2020 Order on Phase I Pilot Programs."² However, contrary to ATE's assertions, the Companies' proposed Phase II Pilot Programs do not represent a balanced portfolio but rather a collection of five programs solely focused on utility ownership of the EVSE. In addition to the Companies proposing to own the EVSE under every Pilot offering, the Companies' Phase II Pilot would restrict customer operation of the EVSE to a singular program offering – the EVSE Tariff Pilot. In the Commission's ET Order, however, the Commission stated its expectation that the Companies "explore...additional ownership and partnership models for EV infrastructure, including utility fully owned and operated stations; make-ready stations with third-party owned charging equipment; and stations co-owned, co-funded, or co-operated by Duke in partnership with other entities."³ The Commission also clearly stated in its ET Order that it "is not sanctioning an open-ended or broad, general participation by Duke in the EV charging infrastructure market."⁴ Based on the Commission's clear direction to the Companies in the ET Order, the Companies' proposed Phase II Pilot Programs cannot reasonably be deemed "balanced", nor can one fairly conclude that it "logically" follows the Commission's ET Order.

Based on the forgoing, ChargePoint continues to believe that the Companies' Phase II Pilot programs (1) fail to meet the criteria set by the Commission in its ET Order and (2) that the Companies' Phase II Pilot programs fail to build upon the Commission-approved Phase I pilots. ChargePoint is not alone in its position. For example, the Public Staff confirms that the Companies' Phase II Pilot application "fails to meet the requirements set out in the Commission's ET Pilot Order" and that the Phase II Pilots, as proposed "lack many of the required

² ATE Initial Comments, p. 1.

³ *Order Approving Electric Transportation Pilots, In Part*, NCUC Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, pp. 18-19. (November 24, 2020). ("ET Order")

⁴ ET Order, p. 19.

characteristics the Commission found necessary to approve future pilots in its ET Order.”⁵ Additionally, Carolinas Clean Energy Business Alliance (“CCEEBA”) argues that the “Phase II pilots are duplicative of the ET Pilots already approved by the Commission...the utility owned components of the Phase II Pilots would not acquire data on alternative implementation approaches for further analysis.”⁶ Furthermore, EVgo states its belief that the Companies “ignored the Commission’s entreaty to focus on make-ready or other tools to catalyze private sector investments in its service territory.”⁷ Therefore, the Commission should reject the proposed Phase II Pilot Programs and direct the Companies to develop and propose Phase II Pilot programs structured to provide additional information for the Commission, the Companies, ratepayers, and EV drivers on the characteristics of different ownership and operation model structures. The Commission should not simply abandon its ET Order and sanction “general participation by Duke in the EV charging infrastructure market...”, nor should it limit pilot programs solely to utility-owned EVSE models.

Notwithstanding ChargePoint’s primary position, should the Commission disagree with our recommendation to deny the proposed pilot programs, ChargePoint asks that its proposed modifications be considered and adopted.

ChargePoint focuses the remainder of these Reply Comments on its responses to certain comments filed on behalf of other parties in these dockets.

II. The Commission should direct the Companies to revise the EVSE Tariff Pilot to require networked EVSE

In their initial comments, the North Carolina Justice Center (“NCJC”), the Southern Alliance for Clean Energy (“SACE”), and the Sierra Club (together, “Joint Commenters”)

⁵ Public Staff Initial Comments, pp 6-7.

⁶ CCEEBA Initial Comments, p. 7.

⁷ EVgo Initial Comments, p. 1.

recommend that customers participating in the EVSE Tariff Pilot should be required to install networked EVSE. ChargePoint similarly recommended that the Commission and the Companies require any EVSE installed through the EVSE Tariff Pilot to be networked.⁸

Joint Commenters explain that under the terms of the tariff there is an incremental price difference for customers that may choose a networked charger and that when presented with the option, many customers may choose the non-networked charger option simply because of the lower price.⁹ Joint Commenters also explain that non-networked chargers cannot provide the same depth of information as networked chargers, and that the Companies should use the EVSE Tariff Pilot as an opportunity to help customers manage their charging.¹⁰ For these reasons, as well as those stated in our initial comments, should the Commission choose to approve the EVSE Tariff Pilot proposed by the Companies, ChargePoint agrees that the Commission should require the Companies to modify the EVSE Tariff Pilot to require all EVSE to be networked.

III. The Commission should reject the recommendation to modify the Multi-Family Level 2 program eligibility to include Level 1 charging

The North Carolina Sustainable Energy Association (“NCSEA”) recommends that the multi-family Level 2 pilot program be redesigned to include Level 1 charging. ChargePoint does not support using ratepayer funds to deploy Level 1 charging equipment.¹¹ Level 1 charging equipment would create considerably less value for the Companies and for ratepayers than smart, connected Level 2 charging stations. Level 1 charging is extremely limited in its capability to support load management activities now and in the future due to the much slower charging rates. Expanding the program to include less capable Level 1 charging as NCSEA recommends would

⁸ ChargePoint Initial Comments, pp. 12-13.

⁹ Joint Commenters Initial Comments, p 9.

¹⁰ Joint Commenters Initial Comments, pp. 9-10.

¹¹ The Companies propose to invest \$2.8 - \$6.5 million in the Multi-Family Dwelling Program. *See* Application, p. 15.

shift investment away from supporting charging EVSE that could contribute significantly to providing system benefits through load management.

IV. The Commission should direct the Companies to establish 50 kW as the minimum DCFC power level and require that sites be future-proofed

In their initial comments, ATE state their belief that “a minimum [power level] of 150 KW is appropriate” for all EVSE deployed under the Utility Owned and Operated Highway Corridor Fast Charging program.¹² ChargePoint appreciates ATE’s and the Companies’ interest in right-sizing EV infrastructure to meet EV charging needs today and tomorrow. However, a requirement to install a 150 kW DCFC station is an unnecessary restriction at this stage in North Carolina’s EV market. Requiring a minimum power level of 150 kW DCFC station could result in needlessly over-sizing EV charging station deployments, unnecessarily increasing ratepayer costs for both charging equipment and grid upgrades, and failing to fully recognize that actual EV charging needs can vary in terms of ports and power level (i.e., kW level). Instead, ChargePoint recommends that the Commission direct the Companies to establish 50 kW as the minimum power level for each DCFC station and include the concept of “future-proofing” to allow site hosts to size deployments in accordance with current and prospective need depending on the specific use case.¹³

V. Traditional demand-based rates can hinder DCFC charging services

According to Joint Commenters, “demand charges pose a significant challenge to the economics of EV charging, particularly at commercial and public charging locations.”¹⁴ Joint Commenters also state that “[f]or charging sites dominated by relatively rare, yet very power-

¹² ATE Initial Comments, p. 5.

¹³ Future proofing refers to the practice of sizing the power feed for charging stations to allow for 1) the addition of more ports at a site as demand for EV charging increases, or 2) higher voltage charging as the market evolves to permit the use of faster charging methods.

¹⁴ Joint Commenters Initial Comments, p. 13. Citing to Farnsworth, et al., Regulatory Assistance Project, Beneficial Electrification of Transportation (Jan. 2019), <https://www.raonline.org/wp-content/uploads/2019/01/rap-farnsworth-shiple-y-sliger-lazar-beneficial-electrification-transportation-2019-january-final.pdf>.

intensive, bouts of fast charging, demand charges can add up to 90 percent of total electricity costs, leaving many sites deeply in the red.”¹⁵ To address the potential for “significant costs to participants” from traditional demand charges, the Joint Commenters recommend the Companies submit for Commission approval “tariffs that will encourage EV adoption while reducing demand charges” within one year from the date of a Commission Order addressing the Companies’ Application for approval of the proposed Phase II Pilots.¹⁶

ChargePoint strongly supports the recommendation that the Companies submit alternatives to traditional demand-based tariffs, but we recommend the Commission direct the Companies to submit tariffs for Commission approval within 6 months from the date of an order in this proceeding disposing of the Companies’ Application. 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 North Carolina, as well as those transiting through the State. As the Companies develop demand charge alternatives, they should consider specific use cases as well as alternatives that have already been demonstrated by utilities in other states.

Demand charges are not an effective price signal for public charging stations because the only way to avoid or reduce demand charges is to shift or curtail load, which typically are not options for travelers “on-the-go” who must charge their vehicles at a public charging station in order to complete their travel. Demand charges also do not accurately reflect cost causation. The Regulatory Assistance Project concluded in a November 2020 report that demand charges “provide an inaccurate price signal,” “reflect[] an outdated perspective of the engineering and

¹⁵ Joint Commenters Initial Comments, pp. 13-14. Citing to Jeff St. John, Getting the Rates Right for a Public EV Charging Build-Out, Greentech Media (Feb. 16, 2021), <https://www.greentechmedia.com/articles/read/getting-the-rates-right-for-a-public-electric-vehicle-charging-buildout>.

¹⁶ Joint Commenters Initial Comments, p. 15.

economics of the electric system,” and “time-of-use and other kinds of time-varying rates remain more efficient and equitable” than even modified demand charges, such as peak window demand charges.¹⁷ Demand charges can present a particularly high barrier to EV charging stations located in rural areas, where utilization is likely to be more infrequent than in urban areas.

In addition to presenting a major barrier to public charging options, demand charges also present a barrier for electrifying public- and private-sector fleets, including municipal service vehicles, school buses, and public transit buses. Addressing unique fleet charging needs through appropriate rate designs that do not include traditional demand charges will reduce barriers to EV adoption, as fleet operators are uniquely suited to maximize the operational cost savings of transportation electrification. Reducing barriers for fleet operators to electrify their vehicle fleets can create widespread and equitably accessible benefits for ratepayers and the general public.

In evaluating the alternatives to demand charges that are more appropriate for different vehicle use cases, the utilities can adopt or modify models established by utilities in other states. Models that have been employed by utilities in other states include:

- **Eversource Energy (Connecticut)** offers customers an EV Rate Rider (EVRR) which converts any demand charges that might otherwise apply to an equivalent \$/kWh charge.¹⁸
- **PECO (Pennsylvania): EV DCFC Pilot Rider:** A monthly bill credit representing a percentage of the nameplate demand associated with installed charging stations behind a commercial customer’s metered service.¹⁹

¹⁷ Regulatory Assistance Project, “Demand Charges: What Are They Good For? An Examination of Cost Causation” at 13 (Nov. 2020), available at <https://www.raponline.org/wp-content/uploads/2020/11/rap-lebel-weston-sandoval-demand-charges-what-are-they-good-for-2020-november.pdf>.

¹⁸ See This rate rider was approved by the Connecticut Public Utilities Regulatory Authority in a decision dated March 6, 2019 in Docket No. 17-10-46RE01, available at [http://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/78a25b4e83776981852583b50057c9d1/\\$FILE/171046RE01-030619.pdf](http://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/78a25b4e83776981852583b50057c9d1/$FILE/171046RE01-030619.pdf) (approving rate available to all public EV charging stations for a term of 3 years) (“In the EV RATE Rider, the rate calculation for EV charging stations is based on a per-kWh equivalent to the demand charges applicable to the Company’s general service rate schedule that would otherwise apply to the load being served.”). This is a successor rate to the EVRR Pilot rate originally approved in Docket No. 13-12-11, by decision dated June 4, 2014. The current Eversource-Connecticut EVRR rate is available at https://www.eversource.com/content/docs/default-source/rates-tariffs/ct-electric/ev-rate-rider.pdf?sfvrsn=e44ca62_0.

- **Dominion (Virginia):** GS-2 rate is a technology-neutral, low-load factor rate applicable to customers with a load factor below 200 kWh per kW.²⁰
- **Pacific Power (Oregon):** Schedule 45 which provides a demand charge transition discount paired with an on-peak energy charger transition discount.²¹
- **Pacific Power (Oregon):** Schedule 29 which couples a TOU rate together with a demand charge based on utilization for which the average energy price declines as utilization increases.²²
- **Public Service Company of Colorado,** a unit of Xcel Energy, offers a low-load-factor rate with a lower demand charge and higher TOU volumetric rates.²³
- **Madison Gas & Electric (Wisconsin)** offers a low-load-factor rate which provides a 50% discount in the demand charge for customers with load factors below 15%. This technology-neutral rate is targeted not only to DCFC facilities, but also to other types of low-load-factor customers.²⁴
- **Xcel Energy (Minnesota)** offers a low load factor rate which forgives a portion of billed demand.²⁵
- **NVEnergy (Nevada)** has implemented Schedule EVCCR-TOU in its Northern and Southern Nevada service territory.²⁶ This rate is applicable to separately metered DC fast chargers by utilizing a 10-year demand rate reduction period which starts at 100% reduction and phases back in at 10% each year. The demand rate reduction is offset with TOU dollar per kWh transition rate adders that are in addition to the normal billed TOU volumetric rates for commercial customers.
- **Tacoma Power (Washington State):** EV-F rate which has a similar structure to NVEnergy's rate above.²⁷

¹⁹ See EEI, *EV Trends and Key Issues* at 2 (Mar. 2019) (“On December 20, 2018... the Pennsylvania Public Utility Commission approved PECO’s five-year EV DCFC Pilot Rider (EV-FC). This rider...will provide a demand credit to the customer’s billed distribution demand. The credit...will be equal to 50 percent of the combined maximum nameplate capacity rating for all DCFCs connected to the service. Eligible customers will receive the credit for up to 36 months or until the pilot ends, whichever comes first. (Docket R-2018-3000164).”) at https://www.eei.org/issuesandpolicy/electrictransportation/Documents/EV_Trends_and_%20Key%20Issues_Mar2019_WEB.pdf. See also <https://www.peco.com/SiteCollectionDocuments/ThirdPartyEV.pdf>.

²⁰ See Schedule GS-2, available at <https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/business-rates/schedule-gs2.pdf?la=en&rev=65c74050107549f299d48689f738e948&hash=7CBE70107AE10C66B8EB5C5A1E248D12>.

²¹ See Pacific Power, Oregon Schedule 45, Public DC Fast Charger Optional Transitional Rate Delivery Service at https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/oregon/tariffs/rates/045_Public_DC_Fast_Charger_Optional_Transitional_Rate_Delivery_Service.pdf. Approved in Oregon PUC Docket No. 485 on May 16, 2017.

²² See In the Matter of PACIFICORP, dba PACIFIC POWER, Request for a General Rate Revision, Oregon PUC Docket No. UE 374 (Proposed), available at <https://apps.puc.state.or.us/edockets/DocketNoLayout.asp?DocketID=22279>.

²³ See <https://www.xcelenergy.com/staticfiles/xcel/PDF/Regulatory/CO-Rates-&-Regulations-Entire-Electric-Book.pdf>, at Sheet No. 44.

²⁴ See <https://www.mge.com/MGE/media/Library/pdfs-documents/rates-electric/E32.pdf>.

²⁵ See Xcel-MN Tariff, available at https://www.xcelenergy.com/staticfiles/xcel/Regulatory/Regulatory%20PDFs/rates/MN/Me_Section_5.pdf.

²⁶ See https://www.nvenergy.com/publish/content/dam/nvenergy/brochures_arch/about-nvenergy/rates-regulatory/electric-schedules-south/EVCCR-TOU_South.pdf.

²⁷ See Schedule FC, available at https://www.mytpu.org/wp-content/uploads/FC_July_2020.pdf.

- **SCE (California):** TOU-EV-8, which provides TOU rates for the initial 5 years with demand charges phased back during years 6-10.²⁸
- **SDG&E (California):** TOU-M, an interim rate, under which sites can switch to a rate with a \$2.50/kWh demand charge and the cap is waived.²⁹
- **Ameren (Illinois):** offers a multi-phase “rate limiter” designed to limit the average monthly cost for customers who limited their total kWh usage during the four summer billing periods of June through September to 20% or less of their annual kWh consumption.³⁰
- **DTE (Michigan):** GS-D3 is a low load factor rate where the 1000 kW demand cap for this non-demand general service rate is waived for DC fast chargers through June 1, 2024.³¹
- **Hawaiian Electric (Hawaii):** offers Schedule EV-F for separately metered public EV charging facilities with peak demands for EV charging not exceeding 100 kW.³² The rate is an all-volumetric rate, with no demand charges. The lowest rate is in the midday TOU period when output from the state’s high penetration of rooftop solar is greatest.

Each of these foregoing options has been designed to alleviate barriers to EV adoption while reflecting cost-causation and maintaining equity among ratepayers. This list of illustrative examples may be helpful to the Companies and the Commission in the development of North Carolina-specific rate designs.

CONCLUSION

ChargePoint thanks the Commission for the opportunity to offer reply comments on the Companies’ proposed Phase II Pilot programs, and for its consideration of transportation electrification programs generally. ChargePoint respectfully requests the Commission’s consideration of ChargePoint’s comments and the adoption of Phase II programs that will

²⁸ See CPUC Decision 18-05-040, Ordering Paragraph 45, and SCE Advice Letter 3853-E (filed August 29, 2018) to implement the new commercial EV rates approved in that order. The decision is available at <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M215/K783/215783846.PDF>. See also https://library.sce.com/content/dam/sce-docl/lib/public/regulatory/tariff/electric/schedules/general-service-&-industrial-rates/ELECTRIC_SCHEDULES_TOU-EV-8.pdf.

²⁹ See San Diego Gas & Electric, Interim Rate Waiver, available at <https://www.sdge.com/interim-rate-waiver>.

³⁰ See Ameren Tariff, available at <https://www.ameren.com/-/media/rates/files/illinois/aiell14rtds4.pdf>.

³¹ See https://www.michigan.gov/documents/mpsc/dtee1cur_579203_7.pdf.

³² Schedule EV-F was established in Hawai’i PUC Final Decision and Order No. 35545 in Docket No. 2016-0328, filed on June 22, 2018, available at <https://puc.hawaii.gov/wp-content/uploads/2018/06/DO-No.-35545.pdf>.

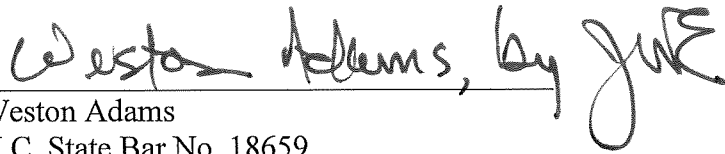
support a long-term, sustainable and competitive market for the installation and operation of electric vehicle charging infrastructure in North Carolina.

Respectfully submitted this 13th day of September, 2021.

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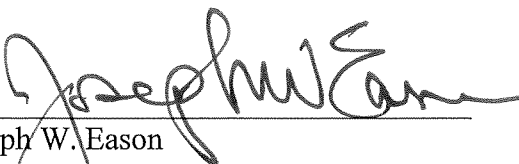
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Comments of ChargePoint, Inc. filed in Docket Nos. E-2, Sub 1197 and E-7, Sub 1195 was served electronically or via U.S. mail, first-class postage prepaid, upon all parties of record.

This the 13th day of September, 2021.



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