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August 9, 2019

Via Electronic Mail

Ms. Martha Lynn Jarvis
Chief Clerk
North Carolina Utilities Commission
430 North Salisbury Street
Dobbs Buildings
Raleigh, NC 27603-5918

RE: In the Matter of: Application for Approval of Proposed Electric
Transportation Pilot
Docket Nos. E-2, Sub 1197 and E-7, Sub 1195

Dear Ms. Jarvis:

Enclosed for filing in the referenced docket are the Reply Comments of
ChargePoint, Inc.

By copy of this letter, I am serving all parties of record on the service list. Please
let me know if you have any questions about this filing.

This the 9th day of August, 2019.

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cc: Parties of Record

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)	

BACKGROUND

Consistent with the April 18, 2019 and July 15, 2019 orders of the North Carolina Utilities Commission (“Commission”) in the above-captioned proceedings, ChargePoint, Inc. (“ChargePoint”) thanks the Commission for the opportunity to provide these reply comments regarding proposed transportation electrification pilots (“ET Pilots”) submitted by Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”) (together, the “Companies”) on March 29, 2019.¹ On July 5, 2019, ChargePoint submitted initial comments on the Companies’ ET Pilots and the specific programs addressing the electric vehicle (“EV”) market in North Carolina (hereinafter, “ChargePoint Initial Comments”). As the leading electric vehicle charging network provider in the world, ChargePoint provided its perspective, opposing certain programs described in the Companies’ Application. The main points of the ChargePoint Initial Comments can be summarized as:

¹ See Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Application for Approval of Proposed Electric Transportation Pilot, Docket Nos. E-2, Sub 1197 and E-7, Sub 1195 (Mar. 29, 2019) (“Application”).

- 1) ChargePoint supports utility investment in charging infrastructure and the underlying intent of the ET Pilots. ChargePoint advanced best practices for utility investments to that end.
- 2) ChargePoint believes that several elements of the proposals would delay the development of a long-term, sustainable, and competitive market for EV charging in North Carolina. ChargePoint demonstrates how many program elements in the ET Pilots are out of alignment with best market practices and may actually undermine the market for EV charging.
- 3) ChargePoint recommends amendments to the Companies' proposed ET Pilots that will better facilitate the deployment of EV charging infrastructure in North Carolina and better align with best market practices.

REPLY COMMENTS

I. The Companies Mischaracterize the Current State of the Competitive EV Charging Market and Fail to Justify taking a Direct and Substantial Stake in that Market.

The ChargePoint Initial Comments describe how there is an active, existing competitive market for EV charging infrastructure in North Carolina. The ET Pilots represent a large-scale, expansive deployment that will endow the Companies with a significant market share that would likely impede the growth of a competitive market for EV charging infrastructure in North Carolina. Many of the ET Pilot programs involve the monopoly utility engaging in a competitive market activity and effectively becoming a dominant competitor of existing market players in North Carolina. ChargePoint further argues that the Companies should not be foundationally positioned to occupy a direct and substantial place in the now-developing EV charging market, and points to the proposed

fast charging (“DCFC”) program as an example of the major stake the Companies would have in charging segments.²

Many commenters agree that the scale and scope of the ET Pilots, particularly the offerings involving utility ownership and operation of charging assets, represents an unnecessarily large deployment, even when accounting for the rapid growth of the existing market for EV charging infrastructure in North Carolina. Notably, the Public Staff insists that many of the Application’s programs are beyond the scope of a pilot deployment, and opined that “[t]he Companies’ proposal is essentially a request to pre-approve infrastructure buildout.”³ The North Carolina Sustainable Energy Association (“NCSEA”) contends that *no evidence* supports the Companies’ assertions that the number of chargers to be installed under ET Pilots would represent a fraction of the EV charging market or would leave ample room for third-party market activities.⁴ Similarly, the North Carolina Clean Energy Business Alliance (“NCCEBA”) argues that the Companies’ proposals would amount to enabling the Companies to become a new dominant market entrant funded by electric ratepayers.⁵ In advancing their arguments on this issue, both NCSEA and NCCEBA list the publicly available charging stations in North Carolina, as updated in the U.S. Department of Energy’s Alternative Fuels Data Center (“AFDC”).⁶

² See e.g. ChargePoint Initial Comments at 11-12.

³ See Public Staff’s Comments, Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, at 11 (Jul. 5, 2019) (“Public Staff Initial Comments”).

⁴ See NCSEA’s Initial Comments, Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, at 2-3 (Jul. 5, 2019) (“NCSEA Initial Comments”).

⁵ See Comments of North Carolina Clean Energy Business Alliance, Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, at 5 (Jul. 5, 2019) (“NCCEBA Initial Comments”).

⁶ See NCSEA Initial Comments at 6; NCCEBA Initial Comments at 3-4.

Importantly, NCSEA notes the past and projected speed of deployments within the existing competitive market, absent utility investment in EV charging. “The speed at which the existing market is changing underscores NCSEA’s concerns about Duke’s Application. When Duke filed its Application just over three months ago, Duke noted that there were only 86 DCFC plugs available in North Carolina. As of July 2, there were 144 DCFC plugs.”⁷ On the other hand, Greenlots presents spurious data on the current charging market, incorrectly claiming that only 43 DCFC stations are operational in North Carolina to support its argument that no competitive market for public charging exists.⁸ This assertion conflicts with AFDC’s data, which states that as of August 9, 2019, there are 153 publicly accessible DCFC ports (or plugs) and 971 Level 2 charging ports installed in North Carolina,⁹ indicating the extent to which the market for EV charging infrastructure has continued to expand since the Companies filed the Application. Importantly, these figures only indicate public charging ports, and there are many more undisclosed private charging locations serving workplaces and fleets across North Carolina.

While the EV charging market’s existence and growth is empirically evident, the Companies’ ET Pilots would still give monopoly utilities a substantial stake in that developing market. Notably, the North Carolina Justice Center and Southern Alliance for Clean Energy (“NCJC” and “SACE”, respectively) admit that if the proposals are approved, the utilities “will own and operate the majority of the DC fast charging stations

⁷ NCSEA Initial Comments at 4 (citations omitted).

⁸ See Initial Comments of Greenlots, Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, at 8 (Jul. 5, 2019) (“Greenlots Initial Comments”).

⁹ See Alternative Fuels Data Center, available at <https://afdc.energy.gov> (last accessed August 9, 2019). These figures include only charging stations that utilize a standard connector.

in North Carolina”¹⁰ Similarly, NCCEBA calculates that, “[a]mong deployments of utility owned and operated infrastructure, Level 2 deployments would occupy 25% of all deployments in North Carolina. And, if approved, the Companies would hold a 50% market share of all public DC fast charger installations.”¹¹ These figures show how the Companies’ ET Pilots would occupy an outsized presence in North Carolina’s current market, but perhaps even more importantly, that market share would likely remain outsized when considering the projected market needs in years to come. NCSEA notes that should the Commission approve the “pubic charging programs” of the ET Pilots without amendment, only a small percentage of the current and projected market would remain for third-party providers of DCFC, and the Companies’ proposal would “entirely flood the market for Level 2 plugs, leaving absolutely no room for further market participation.”¹²

Other commenters also suggest that both the current and projected EV charging market lends to a rapid growth trajectory for EV adoption, calling into question the need for utility ownership and operation of charging infrastructure, especially when there are more customer and market-friendly approaches available. While ChargePoint believes that utility investment in charging infrastructure can accelerate deployment, the Companies’ speculation and conjecture that the current market somehow will not respond to consumer demands and therefore, that the utility must step in to supplant that market, is inaccurate. For example, when reviewing market studies and forecasts for EV adoption, the Public

¹⁰ See Initial Comments of North Carolina Justice Center and Southern Alliance for Clean Energy, Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, at 40 (Jul. 5, 2019) (“NCJC/SACE Initial Comments”).

¹¹ NCCEBA Initial Comments at 5.

¹² NCSEA Initial Comments at 5.

Staff claims that “nothing . . . suggests an emergent situation that would warrant additional expenditures to repeat the same type of pilots being conducted across the country, particularly in the next three years.”¹³ Similarly, NCCEBA avers that “[t]he Companies fail to show how the current charging market is unable to meet current market demands for charging infrastructure, or why, in the context of projected exponential growth in EV penetration, utility intervention is necessary.”¹⁴ Importantly, according to the U.S. Department of Energy, in the absence of utility ownership and operation of charging infrastructure, at least nine competitive market participants presently operate within North Carolina, including Greenlots.¹⁵ It is ChargePoint’s contention that should the utility be permitted to invest in EV charging infrastructure, the Companies’ proposed program must be amended to ensure these current competitive market participants continue to meet current and growing market demands as they do today. To that end, a review of ChargePoint’s recommended amendments to the ET Pilots is found in Section III below.

II. ET Pilots Current Program Design would Undermine Current Competitive Market Dynamics and Limit Third-Party Market Participation.

Beyond the scale of the charging deployment the Companies’ ET Pilots propose, the structure of the program carries negative impacts to the existing competitive market for EV charging infrastructure. It is ChargePoint’s position that unnecessarily expansive pilots involving utility operation of EV charging infrastructure 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. In offering a

¹³ See Public Staff Initial Comments at 15.

¹⁴ NCCEBA Initial Comments at 4.

¹⁵ See NCCEBA Initial Comments at 3, note 1 (citing U.S. Department of Energy statistics).

single market-distorting charging network solution, installed on site hosts' properties at no cost, the Companies' proposal would chill private investment for several years, rather than stimulate broader market participation.

These concerns related to utility operation of charging stations are based upon the concept that utilities would choose a single or limited set of charging technologies, specifically a single EV charging network, to deploy *en masse*, and thus determine market responses and outcomes for years to come. This likely negative impact on North Carolina's existing EV charging market is echoed in comments from NJC and SACE, NCSEA, and NCCEBA. Specifically, NCJC and SACE note that, "the Commission should be vigilant to ensure that a regulated utility's entry into this competitive market does not adversely impact competitive providers of EV charging services."¹⁶ NCSEA states that "[a]llowing Duke to rate base EV charging stations would distort the competitive market for EV charging services, and reduce the likelihood of rapid technological and business model innovation."¹⁷ Finally, NCCEBA asserts that, "[i]f the monopoly is empowered to leverage ratepayer funding to conduct these same activities, there would be a fundamental and detrimental impact to the existing market, as the monopoly would be operating in the same space without the risks or business considerations associated with this investment."¹⁸

In contrast to Greenlots's erroneous assertion that the Companies' programs would stimulate private investment, the Companies' proposed "public charging programs" themselves involve no private investment. Greenlots incorrectly claims that there is "a

¹⁶ NCJC/SACE Initial Comments at 44.

¹⁷ NCSEA Initial Comments at 12.

¹⁸ NCCEBA Initial Comments at 6.

fundamentally inadequate amount of private investment in such charging infrastructure.”¹⁹ However, as the Environmental Defense Fund correctly points out, the Companies’ proposals do not factor in a long-term plan for the future to enable third parties to own and operate DCFC ports.²⁰ The Companies’ plans to operate charging infrastructure would therefore actually involve a chilling or replacement of ongoing third party private investment opportunities as the utility approaches prospective private sector customers with cost-free offerings effectively subsidized by ratepayers. NCJC and SACE also point out “[t]here is a real risk that utilities could intentionally or unintentionally abuse their competitive advantage due to their name recognition, better understanding of systems, prior relationship with customers, ability to set rates and ability to rate-base investments to decrease costs for charging, thus undercutting competitors.”²¹

The Companies’ and Greenlots suggest that competitive market participants will benefit from what Greenlots refers to as “the wholesale-level competition that results from utility procurement” that will “level the playing field.”²² ChargePoint disagrees with this position, as the Companies plan will instead promote a new, single network provider funded by ratepayers over other providers currently active in the competitive market. This would necessarily limit the choices that customers have in the market, and without customers’ ability to choose from the full range of solutions that best fit their circumstances and needs, the market would be less competitive and less innovative. As NCCEBA

¹⁹ See Greenlots Initial Comments at 9.

²⁰ See Initial Comments of Environmental Defense Fund, Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, at 14 (“Jul. 5, 2019).

²¹ NCJC/SACE Initial Comments at 44.

²² See Greenlots Initial Comments at 13.

correctly argues, “[a]s the Company may procure all stations and network services from a single vendor under these programs, the ET Pilots would put the Companies in the position of choosing ‘winners and losers’ in a competitive market, increasing market opportunities for some, and limiting market opportunities for others.”²³

The level playing field that Greenlots envisions is actually present in the current market, where vendors compete for site hosts to choose their technology over the offerings of others. This ongoing competition encourages differentiation which leads to innovation and creates greater value for consumers. Under current market conditions, nothing prevents or has prevented Greenlots from competing with ChargePoint or any other competitor for offering EV charging services to customers in North Carolina. However, should the Commission allow the Companies to select a single network vendor to deploy charging services, it would necessarily create a significant competitive advantage for whatever vendor is selected and upset the competitive balance currently present in North Carolina’s EV charging market. Greenlots imagines the monopoly utility to be a “significant motivated buyer”²⁴ in a market that, in its opinion, lacks one. However, Greenlots fails to appreciate the fact that allowing a monopoly utility to operate charging infrastructure is unlike allowing any other “buyer” to enter a competitive marketplace. Simply put, private third-party investors in EV charging stations take on the risks of investment and risks associated with making a business case to particular customer segments. On the other hand, in operating charging infrastructure, the Companies would not bear any of those same risks, but rather would pass them on to ratepayers, creating an obvious market imbalance and distortion. For this reason, ChargePoint agrees with

²³ NCCEBA Initial Comments at 5.

²⁴ See Greenlots Initial Comments at 13.

NCCEBA's statement that, "[i]f the monopoly is empowered to leverage ratepayer funding to conduct these same activities, there would be a fundamental and detrimental impact to the existing market, as the monopoly would be operating in the same space without the risks or business considerations associated with this investment."²⁵

Commenters also recognize the competitive advantage the Companies' may have in directing a public charging deployment as a unique monopolistic entity, especially when considering where the utility would site EV charging equipment. At this relatively early stage in the development of North Carolina's EV charging market, the Companies could position themselves to select prime locations, leaving less economically viable sites for non-utility competitors, and further delaying private market investment. In fact, the Companies affirm that they will select sites optimally situated for capacity and cost of interconnection, key elements for private sector deployments.²⁶ These are typically criteria or metrics that involve extensive analysis and cost for private market participants. In highlighting this advantage, NCSEA notes that, "[i]n effect, Duke could use its knowledge to install charging infrastructure at all locations that do not require expensive upgrades, and leave sites that require expensive upgrades for other market participants."²⁷ NCCEBA also claims that with this large, near-term deployment, the monopoly would have access to the highest value sites for private sector deployments, thus stifling competition.²⁸

²⁵ NCCEBA Initial Comments at 6.

²⁶ See Duke Response to Public Staff Data Request No. 1-7 (included as Attachment 6 to the NCSEA Initial Comments).

²⁷ NCSEA Initial Comments at 8.

²⁸ See NCCEBA Initial Comments at 5.

ChargePoint agrees with NCSEA and NCCEBA that the Companies' should not be empowered to capture prime locations with a single charging solution.

Furthermore, in its initial comments, ChargePoint argued that the Companies' proposed ET Pilot would effectively create a single dominant company-operated EV charging network throughout the state of North Carolina with inflexible pricing policies that are either out-of-sync with competitive market pricing or artificially adjusted to meet such competitive market pricing.²⁹ In the current market, site hosts invest in EV charging stations to attract EV drivers to their sites, and through controls over access and pricing, site hosts can optimize charging station utilization and enhance the EV driver experience. If improperly designed, utility pricing to EV drivers at charging stations can undermine those natural market dynamics that presently drive utilization. NCSEA shares this concern, citing the Companies' ability to set pricing to drivers outside of the context of a general rate case and without Commission oversight.³⁰ Similarly, NCCEBA recognizes that utility pricing to EV drivers would enable "the utility to compete with their own customers in offering public charging services."³¹

Overall, ChargePoint agrees with the Companies that "[a] robust competitive market for EV charging services is important for widespread adoption of EVs."³²

ChargePoint also agrees with several commenters that utility investment can be designed

²⁹ See ChargePoint Initial Comments at 12.

³⁰ See NCSEA Initial Comments at 11.

³¹ See NCCEBA Initial Comments at 6.

³² See Duke Response to Public Staff Data Request No. 1-5 (included as Attachment 1 to the NCSEA Initial Comments).

to effectively promote and drive competitive market deployments.³³ However, as filed, the ET Pilots public charging programs would negatively impact the current and future competitive market for EV charging services and shift the risks now borne by the competitive market to electric ratepayers.

III. ET Pilots Should be Amended to Enable Utility Investment to Support the Competitive Market for Charging Services

In order to reconcile several areas of concern with the Companies' proposed ET Pilots, ChargePoint advanced amendments in its initial comments that would better align the programs with the existing competitive markets for EV charging and work to foster and support future growth in a competitive EV charging market while still meeting the programs' overall objectives:

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, market-driven pricing and a better driver experience.³⁴

Put succinctly, these recommended amendments would expand technology choices for site hosts so that they may choose which charging infrastructure is installed on their

³³ See e.g., NCSEA Initial Comments at 12; NCJC/SACE Initial Comments at 44; Initial Comments of Sierra Club, Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, at 3 (Jul. 5, 2019) ("Sierra Club Initial Comments").

³⁴ See ChargePoint Initial Comments at 17.

properties, give those site hosts the ability to keep market pricing competitive, and tailor charging activities to align with market demands and their business goals and operations.

Several commenters suggested program structures or modifications to the ET Pilots that are aimed at addressing similar concerns. For example, in exploring appropriate investments for utilities in EV charging infrastructure, NCJC and SACE described a program approved for San Diego Gas & Electric that featured both of ChargePoint’s choice and control recommendations: “To guarantee some competition, the program allowed site hosts to choose the pricing option for charging customers, allowed site hosts to select the [EVSE] and charging services from pre-approved vendors (thereby allowing third party providers to offer competing [EVSE]), and required site hosts to pay a participation fee.”³⁵ That program approved utility ownership of charging stations, but maintained site hosts’ choice in network provider and the ability to set pricing onsite. It also involved a form of private cost sharing in assessing a participation fee.

NCJC and SACE also put forth another program design for the Commission’s consideration that upholds these same elements of choice and control: the make-ready model.³⁶ In a make-ready program, the utility installs and maintains 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, and the site host owns and operates the charging station itself.³⁷ In fact, NCSEA requests that the Commission direct Duke to file

³⁵ NCJC/SACE Initial Comments at 40.

³⁶ *See id.* at 39.

³⁷ *See e.g., id.*

a make-ready program to avoid negative competitive market impacts.³⁸ As noted in its initial comments, ChargePoint would support a make-ready structure for the Companies' proposals,³⁹ provided that site hosts maintain the full range of charging infrastructure choices and pricing choices they have in the market today. ChargePoint has publicly supported make-ready programs in other jurisdictions, and notably, make-ready models have been approved in other jurisdictions for DC fast charger and L2 deployments.

Finally, ChargePoint supports the development of rate designs that maximize the grid benefits associated with EV charging for all electric ratepayers. The Public Staff believes that, “[a]s a pilot project, the Public Staff would expect to see the Companies piloting various rate designs to evaluate the extent to which various rate designs impact customer usage and promote, or inhibit, managed charging.”⁴⁰ To that end, NCSEA requests that the Commission direct the Companies to develop EV-specific rate designs,⁴¹ and NJC and SACE call for “smart rate designs”.⁴² The Sierra Club also recommends rate design reforms, including a review of demand charge rates that may depress the economics for DCFC deployments.⁴³ ChargePoint supports the recommendation that the Commission open a new inquiry into beneficial rate designs for supplying EV charging facilities that will result in greater grid benefits and optimized charging activities.

³⁸ See NCSEA Initial Comments at 12.

³⁹ See ChargePoint Initial Comments at 18.

⁴⁰ See Public Staff Initial Comments at 10.

⁴¹ See NCSEA Initial Comments at 13-14.

⁴² See NCJC/SACE Initial Comments at 28.

⁴³ See Sierra Club Initial Comments at 10.

CONCLUSION

ChargePoint thanks the Commission for the opportunity to offer reply comments on the above-captioned proceedings, 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 in its initial comments, and the adoption of ET 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 North Carolina. ChargePoint looks forward to participating and contributing to future discussions with other interested parties and stakeholders on how to effectively use competitive market forces to achieve beneficial transportation electrification.

Respectfully submitted this 9th day of August, 2019.

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Counsel for ChargePoint, Inc.

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 9th day of August, 2019.

s/Joseph W. Eason
Joseph W. Eason

Counsel for ChargePoint, Inc.