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March 31, 2017

Steven V. King
Executive Director and Secretary
Washington Utilities & Transportation Commission
1300 S. Evergreen Park Drive S.W
P.O. Box 47250
Olympic, Washington 98504-7250

RE: In the Matter of Amending and Adopting Rules in WAC 480-100 Rulemaking to consider policy issues related to the implementation of RCW 80.28.360, electric vehicle supply equipment. (Docket UE 160799)

Dear Director King,

Attached are comments filed on behalf of ChargePoint. Please contact me if you have any questions.

Sincerely,

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BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of Amending and Adopting Rules in WAC 480-100 Rulemaking to consider policy issues related to the implementation of RCW 80.28.360, electric vehicle supply equipment.	Docket UE-160799

COMMENTS OF CHARGEPOINT, INC ON THE DRAFT POLICY AND INTERPRETATIVE STATEMENT CONCERNING COMMISSION REGULATION OF ELECTRIC VEHICLE CHARGING SERVICES

I. INTRODUCTION

ChargePoint, Inc. ("ChargePoint") appreciates the opportunity to file these comments in response to the Commission's *Draft Policy Statement* and *Notice of Opportunity to File Written Comments* ("Notice") issued in this docket on January 13, 2017.

ChargePoint is the world's largest electric vehicle ("EV") charging network with more than 33,000 charging stations around the country, including 1,295 public and private ports in Washington. These include Level 2 EV charging stations at homes and businesses, and direct current ("DC") fast charging stations. ChargePoint has more than 6,500 customers, including major employers, municipalities, universities, utilities, real estate developers and parking garage facility owners and operators that provide EV charging and related services to EV drivers.

ChargePoint applauds the Utilities and Transportation Commission ("UTC") for issuing the Draft Policy Statement and further consideration of these important issues following the September 13, 2016 Open Meeting and stakeholder comments to the November 2, 2016 *Notice of Rulemaking and Notice of Opportunity to File Written Comments* related to RCW 80.28.360.

ChargePoint filed written comments in response to the November 2, 2016 Notice and provided oral comments at the September 13, 2016 meeting calling for the Commission to provide a rulemaking or at a minimum, a policy statement, clarifying the requirements for utilities to receive a rate of return on EV charging infrastructure. Section II addresses the Draft Policy Statement generally, building off of ChargePoint's previous comments filed in this docket, and Section III responds to the questions in the January 13, 2016 Notice.

II. DISCUSSION OF DRAFT POLICY STATEMENT

ChargePoint has continually supported the issuance of a policy statement from the Commission on matters relating to the utility role's in electric vehicle supply equipment services in order to provide clarity to utilities, market participants, and ratepayers ahead of any specific ratepayer-funded EV supply equipment ("EVSE") investment. In our November 23, 2016 comments, we focused our recommendations on key issues around fair competition and ratepayer benefits related to EVSE investments by utilities. The Draft Policy Statement addresses these issues through: *Part 1 – Electric Vehicle Charging as a Regulated Service*, and *Part 2 – Policies to Improve Access to and Promote Fair Competition in the Provision of Electric Vehicle Charging Services*. ChargePoint provides the following general comments on these two Parts:

a. Part 1 – Electric Vehicle Charging as a Regulated Service

ChargePoint generally supports the Draft Policy Statement's determination that electrical companies may offer EV charging as a regulated service with Commission approval. We agree that the criteria to evaluate these investments should focus on whether these investments are "used and useful" and can demonstrate quantifiable benefits to ratepayers. Specifically, we reiterate our November 23rd comments to include in the quantification of benefits that any EVSE investments deployed through the utility should ensure that installed equipment be able to

provide broader benefits to the grid through networking and load management capabilities, to enable data collection on system utilization, managed charging, and demand response. These capabilities would support improved grid utilization and efficiency, renewable energy integration, and overall downward pressure on rates impacting all ratepayers.

We also strongly support the Commission's determination that rates for EV charging services should both protect non-participating ratepayers as well as fairly compensate EV drivers for the benefits they provide. This can include bill savings, credits, and other incentives for participating in grid services and demand response programs. In addition to incentivizing the installation of networked EVSE equipment, the utility should also be encouraging charging at certain times of day that are most beneficial to the grid through rate signals to the EVSE site hosts, the utility's customer of record. This should include establishing Time-of-Use ("TOU") rates for residential customers, as well as "fast charger friendly rates" specific to DC fast charging that explore alternative methods for cost recovery other than traditional demand charges.

ChargePoint recommends a clarification to item 32 in the Draft Policy Statement regarding the "competitive market" for EV charging services. The Draft Policy Statement claims that "the competitive market for EV charging services is still developing, and may not yet be subject to effective competition in all areas of the state", which leads to the conclusion in the Draft Policy Statement that the utilities may be limited in their ability to offer more flexible pricing structures for EV charging services to commercial and industrial customers. We recommend that the Commission consider a broader definition of effective market competition that is not necessarily constrained to geographic regions. In general, ChargePoint has found that the market for workplace charging is competitive throughout the state of Washington, regardless

of geography. There are however, areas of opportunity that can be addressed by the utility in the hard-to-reach markets such as multi-unit dwellings and in low-to-moderate income communities where there much lower penetration of electric vehicles.

ChargePoint also supports the determination that utilities be able to earn an incentive rate of return on investments in EVSE as long as they meet the requirements of RCW 80.28.360, including that the investments will result in "real and tangible" benefits to ratepayers. ChargePoint specifically recommends that the Commission clarify that utilities be able to earn a rate of return on financial incentives offered to customers to purchase EVSE. These incentives could be in the form rebates offered from the utility directly to site hosts so that they can select the equipment manufacturer and network services provider that best matches their needs. These incentives should still be treated as investments made by the utility, and therefore the utility should be authorized full cost recovery and opportunity to earn an incentive rate of return on them as a regulatory asset, just as they would on any direct capital expenditure for utility-owned equipment. For instance, for a $500 incentive payment to a customer for EVSE, the utility would earn the incentive rate of return over the useful life of the equipment based on its depreciated value.

The Commission should consider requirements to mandate the utility to develop a program that is efficient in terms of utility funding, utility actions and utility interaction with the site hosts. The utility perception that giving free charging stations to customers is beneficial to the market and simple to implement is just not true. A few findings are coming out of existing utility programs already in progress in the US:

1) While the utility program is developing, it has a freezing effect on the EV market which dramatically slows private investment in EV infrastructure. The subsequent deployment by the utility program is hard pressed to match organic market growth.
2) Utility managed programs tend to be much more expensive than the private sector managed programs.
3) Utility managed programs, especially given oversight requirements, are slow to develop, slow to implement and slow to analyze.

Utility requirements for capitalization of assets on private property are not well received in the commercial market. The requirements are difficult in implementing when faced with a property tenant, property manager, and property owner who all need to sign off on the granting of a long-term easement to a utility. Especially when the value of that commercial easement far exceeds the value being offered by the utility.

Finally, ChargePoint reiterates our comments from the November 23rd filing specific to the need for the clarification around the apparent limitation of utility investment in DC Fast Charger ("DCFC") infrastructure due to the two-hour minimum parking requirement. We appreciate the Commission's response to this in the Draft Policy Statement, however given that the Commission is refraining from taking a position on this issue at this time, we hope there will be an opening to address this limitation when the utilities' investments come before the Commission for approval in the future.

b. Part 2 – Policies to Improve Access to and Promote Fair Competition in the Provision of Electric Vehicle Charging Services

ChargePoint appreciates the Commission's consideration of the utility's role in supporting market transformation and transportation electrification as it relates to investments in EV charging infrastructure. A cornerstone of this consideration is to ensure that as the utilities

make any investments in this market, that customer choice of hardware and network services and fair market competition among EV charging service providers are not just protected, but promoted in a way that encourages utilities and EV charging service providers to work together to maximize the benefits to all ratepayers. Additionally, we agree with the Commission that these utility investments should align with market transformation principles, and as part of that, the utilities should have the ability to propose innovative program design approaches to supporting transportation electrification in the most efficient means possible. In our comments on November 23rd, ChargePoint recommended that the Commission adopt a definition of "fair competition" that included requirements for multiple hardware vendors AND network operators to be qualified into all utility investments and allow customer choice in the equipment, services, and pricing to drivers for all stations located on customer property. The Draft Policy Statement does not seem to adequately address these considerations, and therefore ChargePoint has several recommendations for modifications to the "Portfolio Approach" adopted by the Commission.

We do agree with the Commission's assessment that without the proper price signals, EV charging may occur in a way that exacerbates peak demand challenges. We would recommend that the Commission clarify that these price signals should be sent to the utility customer of record, the site hosts, both residential and commercial, of the EV charging stations, as opposed to the EV drivers directly. The site hosts should be responsible for managing the charging that takes place on their premises, as they are the ones directly responsible for paying the utility for any electricity used to charge electric vehicles. Additionally, we support the development of demand response and other load management programs and dynamic price signals to further encourage "smart charging" of electric vehicles in order to provide benefits to the grid. Providing flexibility to the site host to set access and use policies for the charging stations on their property and

behind their utility meter has a positive impact on utilization of the assets and in turn, can increase the load factor and provide additional grid benefits. As example, site hosts may offer free or nominal fees to charge a vehicle for the first few hours, and then place an hourly fee on top of that to encourage drivers to move their vehicle and let others use the station, thus increasing its utilization. Others may choose to retain employee EV parking during business hours and utilize the charging stations in the evening hours for corporate fleet vehicles, increasing the asset use in two dayparts. It is the flexibility of the site host to make the choice that is right for this individual property.

Site hosts also have very specific concerns on how their clients (employees, retail customers, tenants…) experience various environments, and to suggest they do not want to participate in the pricing that their client sees and pays is ignoring how the EV infrastructure market is developing through normal market pressures..

In the Draft Policy Statement, the Commission contends that the Portfolio Approach will promote customer choice as the customer will have the option to choose whether to take service from the utility as a "provider" or as a "manager" of EV charging services. The Portfolio Approach however, provides rigid and prescriptive definitions around these two models, and leaves little room for innovation from either the utility or market participants, totally ignoring market dynamics. Additionally, this approach does not adequately address or assess the impact on existing EV charging equipment and service providers to compete in the market when the utility would be given the ability to earn a rate of return on charging infrastructure investments and leverage rate payer funding – which equates to free money for the utility.

In the "provider" model, the Commission removes all options around customer choice and fair market competition by explicitly stating that the utilities will own and operate the entire

EVSE infrastructure and provide the EV charging services. There are numerous complexities and inefficiencies of implementing such a program, including the utility procurement department choosing what products and services will be offered in the program instead of allowing for all qualified vendors to participate and help educate site hosts on the differences of commercially available products and services; the beyond the meter construction requirements dealing with two electrical unions; incorporating the National Electric Code local permitting and inspection requirements in to the traditional utility processes that are regulated by the Commission; requiring unnecessary easements for placement of utility owned and operated assets beyond the traditional line of demarcation; and requiring new labor and internal processes and resources of the utility which will increase utility operational costs. Beyond all of that, there is no incentive for site hosts to engage the placement and maintenance of charging infrastructure and make investments of their own, which can increase the risk of stranded assets. This proposed model suggests that the utility will be the sole provider of charging stations and the utility will own the market – providing 100% of the needed charging infrastructure – a very expensive and unnecessary scenario and one copious with unintended consequences.

Additionally, this approach presumes that the utilities would be investing in public DCFC infrastructure, however the Commission still has not addressed whether or not the utilities are able to invest in DCFC because of the two-hour parking requirements. We do agree that any EV charging services for public DCFC should include a rate design component that better aligns utility cost recovery with the type of usage of this infrastructure, such as volumetric rates in lieu of traditional demand based rates.

ChargePoint strongly recommends modifying the "provider" model to allow more flexibility around the business model that the utility would propose. This should include the

ability for the utility to earn a rate of return on incentives to offset costs of the "make ready" infrastructure, and provide direct incentives to customers for the purchase of EVSE equipment, with the ability to choose their network provider.

The "manager" model provides more flexibility around customer choice by allowing site hosts to choose and own their own EVSE equipment. This model should be expanded to ensure that customers have a choice in not only equipment, but in their network service provider as well. The Commission should specifically modify this approach to ensure that in supporting market transformation the Commission is not directing the utility to pick a "winner" in terms of a network provider and allow for the market to compete to provide services to customers based on functional minimal requirements of the utility program. We believe this approach should apply broadly to all customer segments and equipment types, including public charging applications. We do support the ability for the utility to invest in the "make-ready" components of the EVSE installation and encourage rebates, financial transactions treated as regulatory assets, to offset costs of the customer of record make-ready to mitigate construction requirements of the utility.

ChargePoint believes strongly that fair competition and customer choice should not be defined as limiting a customer's choice to either utility ownership and operation of the station, or some predetermined third-party network provider. Additionally, utilities should be given flexibility to propose business models that support working collaboratively with industry to provide innovative solutions to customers, and this should include allowing the utility to earn a rate of return and investments to provide rebates to customers for the purchase of EVSE equipment. In order to see a robust market for EV charging services develop in Washington and support the state's transportation electrification goals, we hope the Commission will make modifications to the Portfolio Approach.

III. RESPONSES TO QUESTIONS IN THE JANUARY 13, 2017 NOTICE

Portfolio Approach to EV Charging Services:

1. *What is the definition of "Electric Vehicle Supply Equipment," and how should the Commission consider ownership of EVSE as a factor to determine whether a utility serves as a "provider," or "manager" of EV charging services?*

ChargePoint reiterates our recommendation that the Commission adopt a definition of EVSE that include all or parts of the entire scope of a charging station installation from the "make ready" (lines, wires, conduit, trenching, panel, meter) to the charging station hardware, its maintenance, and any software or network services associated with that station. As previously stated, providing this definition would allow utilities flexibility to propose different business models and investments and receive the same rate of return so long as the investment met all other requirements of RCW 80.28.360, including that the EVSE provides real and tangible benefits at the time they are placed in rate base.

We would recommend that the Commission authorize the utility to incentivize the "make ready" and allow site hosts to own and operate their own equipment and services, reducing the cost to ratepayers and promoting competition and customer choice while providing the utility the value of data and load management through program design requirements.

2. *What criteria should the Commission use to determine whether a portfolio is "balanced"?*

If the Commission modifies the Portfolio Approach, per the recommendations above, then a balanced portfolio should include investments and incentives to a variety of different customer segments, including low-income customers. This should include maximizing the benefits to all ratepayers across all customer classes. The Commission should consider analyzing the cost-effectiveness of a utility's portfolio with a focus on how these utility investments are incremental and additional to what is already being invested in the private sector, and through

other state and local programs. As with other conservation and customer programs of the utilities, investments should be evaluated to determine whether or not they would have happened anyways, with a goal of limiting free-ridership.

Interoperability:

3. *What specific policies should the Commission adopt regarding interoperability of utility-owned charging infrastructure? We expect that both the EVSE hardware developed by the manufacturers and the software and communications components to continue to advance and develop rapidly over time. Accordingly, how should the Commission ensure that EV owners are not locked in to a certain type of technology (either hardware or software) as the market develops, and what role should the Commission have in assuring some type of backend interoperability between the EVSE at the hosting site and the operator of the overall EVSE systems?*

ChargePoint understands the need for an open standard for communication between the EVSE and the operator's management system. Seeing the weakness of current initiatives in this area, we launched and are leading an IEEE standards development effort (P2690) to meet this need. Since there are now several competing efforts, it would seem best to seek or require "*an open standard for communication between charging stations and their management system*" rather than for the Commission or utilities to attempt to choose a winner, which is premature this point in time. A critical requirement is for any standard in this area to be developed in an ANSI-recognized Standards Development Organization ("SDO"), since only such an SDO can ensure the openness, lack of dominance, balance, IP protection, and coordination and harmonization that vendors need to participant and deliver the needed open standards.

4. *What policy mechanisms or standards are available to promote system-wide interoperability for drivers, such that EV drivers can charge any EV model and pay for the charge without joining a multitude of charging networks? Does the Commission have a role in overseeing the development of these standards or protocols, or should it provide guidance on the characteristics of an open EVSE system or a more common interoperable platform?*

There are many informal specifications for roaming protocols and schemes, but very little experience with their use in practice. There are two notable SDO-backed projects in this

area: the NEMA Roaming Standards effort, which is mature and nearing publication; and a new IEC Working Group on "Electric Vehicle charging roaming service". Once again, with many potential solutions emerging it would seem best to seek or require "*an open standard for inter-charging network roaming*" rather than for the Commission or utilities to choose a winner, which is premature this point in time. We believe the Commission can play a critical role through encouraging the utilities to work with industry to develop the needed standards through the appropriate SDOs.

Stakeholder engagement:

5. *The Commission requests feedback on its proposed policy allowing for a single joint stakeholder group to participate in review of utility EV charging service program design and review.*

ChargePoint supports the establishment of a working group that includes all participants to the rulemaking, and looks forward to working with all stakeholders on the development of future utility programs.

IV. Conclusion

ChargePoint appreciates the opportunity to provide these comments. We look forward to continuing to work with the Commission and all stakeholders to further refine and develop the policy framework for electric vehicle infrastructure investments in Washington.

Dated: March 31, 2017

Respectfully submitted,

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