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Notice of Inquiry and Request for Stakeholder Comment
Regarding a Utility's Role in Deploying Beneficial Electrification with Focus on Plug-in Electric Vehicles

Comments of ChargePoint

ChargePoint is pleased to submit these comments in response to the above-reference Notice of Inquiry issued by the Rhode Island Public Utilities Commission, Division of Public Utilities and Carriers, and Office of Energy Resources.

ChargePoint is a leading manufacturer of electric vehicle ("EV") charging equipment and services. Using ChargePoint products and services, customers operate more than 36,000 total charging spots, including 569 DC fast charge locations. ChargePoint designs, develops, and deploys residential and commercial AC Level 2 ("L2") and DC fast charging ("DCFC") electric vehicle charging stations, software applications, data analytics, and related customer and driver services aimed at creating a robust, scalable, and grid-friendly EV charging ecosystem.

ChargePoint sells EV charging equipment and network services that enable EV charging station owners to provide charging services to their own or other EVs. In almost every case, ChargePoint does not own or operate the equipment. ChargePoint sells charging solutions to a wide variety of customers, including residential EV owners, employers, commercial and industrial businesses, cities and public agencies, ports, schools, public transit, delivery truck fleet operators, and multi-unit dwelling owners. ChargePoint offers a broad array of products and services that can serve light, medium, or heavy duty electric vehicles.

The site host network services offered by ChargePoint enable customers to manage their charging infrastructure using cloud-based software tools. These tools provide the station owner or operator with everything needed to manage and optimize utilization of their charging stations EV charging operations, including online management tools for data analysis, billing and payment processing, load management and access control. Stations connect to ChargePoint over a secure, cellular data network (or Wi-Fi in the case of residential) allowing station owners to manage all their charging operations from a single dashboard. Maintenance and customer service are a priority for our company. ChargePoint offers a comprehensive set of support services, including: a 24/7/365 hotline for station users, parts and labor warranty, site qualification, installation and validation services, and a help line for site host specific questions.

ChargePoint stations include embedded metrology that enables separate metering of charging events and facilitation of other data collection without the need for additional utility meters. ChargePoint stations meet or exceed the requirements set forth in the electricity-as-motor-fuel sections of NIST Handbooks 44 (device code). In utility terms, our charging stations meet the accuracy requirements of ANSI C12.1-2008 (1% class) as applied to embedded EV supply equipment ("EVSE") metering.

Our comments on the identified questions follows:

Section II.A. Background on the Role of the Utility
1) Are there other roles a utility might play in PEV adoption?
Utilities have very important roles to play in meeting Rhode Island's transportation electrification goals. First and foremost, utilities are ideally situated to ensure that the associated new load is incorporated in a safe, reliable, and efficient manner. When considering whether to expand the role for utilities on the customer side of the meter and

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into the competitive market, it is important to consider Rhode Island's market today and how it is growing into tomorrow's market.

The private sector is actively selling EV charging stations around the state. There is demand for charging stations as evidenced by the more than 65 charging spots sold to non-utility customers in Rhode Island by ChargePoint alone to date. These charging spots have been purchased by workplaces, hotels, public entities, retail sites, and residential locations. Rhode Island should prioritize fostering the continued growth of the competitive EV charging market, particularly as new models of EVs are available to drivers and charging need continues to grow.

ChargePoint is also proud to be a partner of utilities around the country, including National Grid, in deploying utility-supported charging infrastructure and pilot programs. ChargePoint believes that there is a vital role for utilities in supporting increased EV adoption and that the right program design can encourage the installation of more charging stations around the state. There are ratepayer and environmental benefits associated with increased EV adoption and managing the associated EV load on the grid. These benefits include downward pressure on rates from increased throughput associated with EV charging, balancing load with solar and other intermittent renewable energy on the grid, and cleaner air from fuel switching, especially in high traffic areas. Additional ratepayer benefits could be realized with charging solutions that allow for load management and dynamic or time of use pricing mechanisms to drivers, given that EVs can be very flexible on when they need to charge. This necessitates that any utility program should require that associated charging stations participating in the program include demand response capabilities, two-way communications, and embedded energy metering.

ChargePoint encourages Rhode Island to expand on this topic and develop transparent criteria for evaluating and approving these programs to ensure that competition, innovation, and customer choice continues in the market, and that the programs are in the best interest of ratepayers. Stakeholders from across the auto, utility, EV charging, and nonprofit sectors signed onto a series of *Guiding Principles for Electric Vehicles and Charging Infrastructure* which were signed by nearly 50 industry members including 18 utilities.[1] These principles should be considered when developing regulatory policy and utility programs.

2) Who are the other key actors and what should their respective roles be?
There is a wide range of stakeholders involved in the EV charging ecosystem. Automobile manufacturers, EV charging equipment and service providers, network operators, utilities, state and local policymakers, regulators, EV charging station site hosts, drivers, fleet operators, and more.

There are many non-utility entities that own and operate public EV charging stations, in Rhode Island and around the country. The owners of these charging stations are the customer of record with the local utility for electricity sales and in turn provide EV charging as a service to drivers. These include landlords, employers, universities, municipalities, state and local government agencies, operators of shopping malls and other commercial businesses, hospitals, transit operators, national parks, non-profit organizations, fleets, car-share companies and commercial electric vehicle service providers.

In well-established residential and commercial EV charging markets, innovative new products, new market participants and new business models are flourishing and proliferating. In emerging markets for EV charging

[1] White House Press Office, July, 21 2016. "Guiding Principles for Electric Vehicles and Charging Infrastructure." Source: https://www.whitehouse.gov/the-press-office/2016/07/21/fact-sheet-obama-administration-announces-federal-and-private-sector

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products and services that support vehicle fleets and medium/heavy-duty equipment, competition and innovation are driving creative solutions and addressing unique customer needs and preferences. Innovations in software and cloud-based charging solutions enable sophisticated data collection and analysis, smart charging, and participation in demand response programs that benefit the grid. This growth and innovation is driven by competition, customer choice and private investment. Utility investments in and programs related to EVs and EV charging that support third-party markets benefit ratepayers and consumers, and will help to accelerate growth in the market. By contrast, utility programs that involve cumbersome legal terms, force product design parameters to meet utility requirements rather than EV driver needs, or predetermine a one-size fits all solution can undermine customer choice, restrict competition, and frustrate technological innovation.

Regulators and policymakers have critically important roles to play in achieving statewide goals for transportation electrification and the transformation of Rhode Island's power sector. Policymakers and regulators are in the unique position to identify priorities, authorize incentives, and determine the balance between incentivizing outcomes and maintaining sustainable and scalable growth in the market.

Quite often, however, the most impactful policies to support the EV adoption and the increased deployment of EV charging stations are unrelated to energy policy altogether. For example, building codes govern baseline standards for how residential and commercial buildings are constructed and have the potential to decrease barriers to EVSE deployment by including "EV Ready" requirements. The details of EV Ready building codes can vary by region, but they typically require new building construction to prepare a certain proportion of parking spots for EV charging to be installed at a later date.

EV Ready building codes typically require some or all of the following:

- A percentage of parking spots made "EV Ready" for charging to be installed, meaning:
  - A dedicated electrical circuit with sufficient capacity for each charging spot
- Preparation for EV charging at a certain percentage of parking spots, meaning:
  - Electrical panels labeled EV Ready; or
  - Partial raceway through either inaccessible areas, or complete raceway positioned near where people will park
- EV charging stations installed at a certain percentage of parking spots with EV infrastructure.

When buildings and electrical services are not built with potential EV charging in mind, owners need to engage in expensive and time-consuming retrofitting, adding new electrical capacity and running conduit in order to install EV charging. This can take several weeks and cost tens of thousands of dollars or more, delaying charging availability, taking time away from other projects and compromising people's ability to charge their EVs at convenient locations.

Section II.B. Goals for the Electric System and PEVs

1) Which of these goals should be prioritized by the utility?

ChargePoint recommends that utilities prioritize the identified goals of "Prioritize and facilitate increasing customer investment in their facilities" and "optimizing benefits of a modern grid and attaining appropriate rate structures" in the context of supporting the adoption of electric transportation.

In order to facilitate the deployment of charging infrastructure by customers, utilities can design programs that help reduce some of the financial barriers associated with the utility service or electrical infrastructure costs on the customer side of the meter. By offering a rebate or reduced costs for such electrical infrastructure, EV drivers and

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site hosts will be encouraged to deploy additional charging solutions while utilities gain additional insight into the EV load profiles and growth locations. Utilities can utilize load management programs and rate structures tailored to support EV charging during the most optimum time periods to maximize grid benefits. Additionally, rates tailored to support EV charging can also improve the feasibility for third parties to operate faster DC charging equipment, the deployment of which will support long-distance travel and increase consumer "range confidence" in EVs.

Residential Smart Charging

The vast majority of EV charging occurs at the home[2]. Given longer residential dwell times, this is a use case in which there is a great deal of flexibility in when the vehicle must actually be charged. As such, drivers are often very willing, with the right incentive, to defer charging to later times when it is more ideal and efficient for the grid. Several options exist today with EVSE technology to enable and incentivize this charging behavior including load management and using the embedded EVSE meter to support on-bill, or off-bill, incentives based on specific EV charging time-of-use. Assuming associ ated programs are successful in accelerating EV adoption, a smart home EV charging initiative would ensure that the majority of this associated load growth can be integrated into the grid in a manner that minimizes potential infrastructure upgrade risks and maximizes operational benefits.

Commercial EV Rates

DC fast charging technology is rapidly becoming a standard charging option on battery electric vehicles. Battery capacities and the associated electric mile range for such vehicles also continues to rise, likely resulting in more vehicles needing a greater amount of charge in a shorter period of time. Access to DC fast charging solutions will play an important role to increase range confidence for EV drivers and enable future market segments, such as heavier-duty truck and bus fleets, to go electric. However, DC fast charging stations are currently characterized by having a low load factor with sporadic instances of very high energy use due to a limited number of vehicles in the market that will use these stations in the near term. This can subject fast charging site hosts to significant demand-based charges (e.g., National Grid's Optional Large Demand Rate G-62[3]) charges, making it impractical for site hosts to provide fast charging solutions during the critical phase of early adoption.

ChargePoint recommends that alternatives to traditional rate structures be evaluated which specifically take into account electric vehicle load, across all use cases, along with the grid and societal benefits associated with transportation electrification. Eventually, the anticipated larger scale adoption of electric vehicles and associated higher utilization of DC fast chargers will mitigate the impact of demand charges, but low utilization in the early years makes ongoing costs a significant barrier.

2) Which goals should be shared with, or left to, other actors?

All of the identified goals are important and should be explored and accomplished in concert with industry and community stakeholders.

3) What other goals could be achieved by, and considered in, a utility's proposal to play a role in the adoption of PEVs?

[2] One analysis conducted through the Idaho National Labs found that, on average, EV drivers charged their vehicles at home 64% of the time, with 33% of charging taking place at work, and the remaining 3% at charging stations in other locations.

[3] There are several options to consider that would still allow utilities to recover all costs while at the same time, encouraging sites to operate fast chargers

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Any utility proposal must be designed and evaluated in the context of the goal of encouraging sustainable and scalable growth in Rhode Island's EV and EV charging markets. The key to fostering such growth is to ensure that the market is competitive, innovative, and allows site hosts to choose the equipment and services to best meet the needs of drivers and their site.

Jurisdictions around the country have begun to identify parameters by which the competitive EV charging market can continue to thrive alongside an expanded role for regulated electric utilities. Two examples of established parameters for utilities to play a role "beyond the meter" are in California and Massachusetts.

Massachusetts

On August 4, 2014, the Massachusetts Department of Public Utilities ("DPU") issued Order 13-182-A, which established the role of distribution companies in EV charging. The order identified that distribution companies "may have a competitive advantage in owning and operating EVSE that may adversely affect the development of a competitive market for EV charging," and that, as a result, "the Department will not allow recovery of costs for distribution company ownership or operation of EVSE for new investments going forward,"[4] with a few exceptions. Those exceptions were:

- EVSE ownership for operation of a utility's own fleet;
- Research and development as part of grid modernization plans; and
- In company proposals, provided that the proposal must "be in the public interest; meet a need regarding the advancement of EVs in the Commonwealth that is not likely to be met by the competitive EV charging market; and not hinder the development of the competitive EV charging market".[5]

The standard of review identified in DPU 13-182-A were recently incorporated into statute in January 2017, when Governor Charlie Baker signed Chapter 448 of the Acts of 2016.

California

On December 22, 2014, the California Public Utilities Commission ("CPUC") issued Decision 14-12-079, the Phase 1 Decision Establishing Policy to Expand the Utilities' Role in Development of Electric Vehicle Infrastructure. The decision took the "first step in…efforts to adopt rules that will encourage the expansion of electric vehicle infrastructure and the widespread deployment and use of plug-in electric vehicles ("PEV")."[6] The decision reaffirmed the CPUC's intention to apply the "balancing test" adopted previously in Decision 11-07-029, which requires that "the benefits of utility ownership of PEV charging infrastructure must be balanced against the competitive limitation that may result from that ownership."[7]

The CPUC established a statewide approach for each investor owned utility to submit PEV charging proposals, explained that every utility proposal would be examined "on a case by case basis,"[8] and that it would take a "detailed, tailored approach to assessing any proposed utility program based upon the facts of specific requests, the likely competitive impact on the market segment targeted, and whether any anticompetitive impacts can be

[4] DPU Order 13-182-A p. 13 http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=13-182%2fORDER_13182A.pdf
[5] Id.
[6] CPUC issued Decision 14-12-079 p.1. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M143/K682/143682372.PDF
[7] Id., p.5.
[8] Id.

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prevented or adequately mitigated through the exercise of existing rules or conditions." This detailed examination would entail a factual inquiry, including at a minimum, examination of the nature of the program, the affected competitive market, unfair utility advantages, and whether rules, conditions or regulatory conditions are needed to effectively mitigate anticompetitive impacts or unfair utility advantages.[9]

The balancing test in Decision 14-12-079 was used by the CPUC to evaluate pilots proposed by Southern California Edison, San Diego Gas & Electric, and will be used to evaluate a pilot under consideration from Pacific Gas & Electric Company. Future phases of these utility EV charging pilots will be evaluated by a new statewide policy, which builds on language in Decision 14-12-079, codified into law in Senate Bill 350. Beginning in 2017, utilities in California will file applications to support transportation electrification using lessons learned from the first phases of their pilots and based on a statewide policy that requires:

> *"Programs proposed by electrical corporations shall seek to minimize overall costs and maximize overall benefits. The commission shall approve, or modify and approve, programs and investments in transportation electrification, including those that deploy charging infrastructure, via a reasonable cost recovery mechanism, if they are consistent with this section, do not unfairly compete with nonutility enterprises as required under Section 740.3, include performance accountability measures, and are in the interests of ratepayers as defined in Section 740.8."*[10]

SB 350 also requires California utility transportation electrification proposals to be evaluated based on their ability to "stimulate innovation and competition, enable consumer options in charging equipment and services..." This language is consistent with other statewide utility EV charging policies signed into law in Washington (HB 1853), Oregon (SB 1547), and Utah (SB 115).

4) What metrics might be useful in determining the effectiveness of a utility's PEV business or program?
The metrics used to evaluate a utility program must be aligned with the goals of the program. ChargePoint recommends that Rhode Island measure the extent to which utility programs support the competitive EV charging market, in addition to tracking standard deployment and utilization indicators that would be used to evaluate utility programs. Metrics tied only to deployment statistics will not accurately reflect whether a utility program is unnecessarily impacting the competitive nature of the charging infrastructure market or enabling sustainable growth in the market aligned with EV driver needs.

Section III.A. Investment Needs for PEVs
1) What other investment needs, not listed above, are there in the PEV sector?
ChargePoint recommends targeting investments at a more granular level than in the identified range of possible investment needs. The category of "Public, private, and shared electric vehicle supply equipment (EVSE) and installation" incorporates a wide range of cost barriers that could be addressed in different ways.

Equipment vs. Installation Costs
The two key cost drivers associated with deploying EVSE are the equipment and installation costs. Installation costs often far outweigh equipment costs, which is particularly true for commercial AC Level 2 and DC fast charging stations.

[9] Id., p.8-9.
[10] California SB 350, Sec. 32. http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350

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In 2014, Rocky Mountain Institute ran a detailed analysis of the breakdown of cost of Level 2 charging stations for home, parking garages, curb-side and also for DC Fast Charging.[11] For Level 2 parking garage installation, the electrician labor alone ranged from $1,240-$2,840 per port. Factoring in electrician materials (including $1.50-$2.50/ft for conduit and wire) as well as trenching ($25-$100/ft) and other costs (mounting, signage, etc.) the non-hardware costs for installation were estimated to range from $1,800-$5,000 per port or if a new breaker is required, more than $6,000 per port. These installation costs are unlikely to experience significant reductions over time as compared to equipment costs which may experience reductions over time do to economies of scale, improved manufacturing efficiencies, and competition in the market. The RMI numbers are very similar to those in a report by the US Department of Energy in November 2015.[12]

Targeting Most Significant Barriers

Some use cases for EV charging deployment face higher barriers than others, and ChargePoint recommends that any utility EVSE program be target to target those use cases. Designing a program to focus on those use cases would be aligned with the role of a regulated utility.

An example of an EVSE use case with significant barriers are multi-unit dwellings (MUDs), including high-rise mixed-use apartments, widespread apartment communities, and condominiums. In addition to installation cost barriers, MUDs present a range of related barriers that are not present when installing at single-family home residences. While residents may in some cases own their apartment or condo, EVSE installation will often be sited on commonly-held property, which increases the complexity of deployment. There are also varying challenges for MUDs that have dedicated parking than those with shared parking, all of which would require coordination between land owner, property manager, condo board or homeowner association, and the tenant.

2) What are the specific and relevant circumstances of Rhode Island's current and future transportation sector that might affect or prioritize these needs? For example, are load and generation growth on the distribution system relevant factors, are the size of the Rhode Island market and the geographical size relevant factors, is the public transportation sector a relevant factor, is the quantity of water-based vehicles a relevant factor, etc.?

The transportation sector is ripe for widespread electrification. It is important that Rhode Island also increase access to charging outside of the personal, light-duty vehicle market. Including consideration for supporting the electrification of public transportation, in addition to rapidly shifting forms of mobility (e.g., ride-sharing and ride-hailing fleets) will support equitable access to clean transportation.

Section III.B. Utility Investment in PEVs

1) What other source of PEV investment could be tapped in RI?

In addition to the identified sources, some states have identified other sources of funding that are consistent with the goals of transportation electrification. For example, proceeds from Regional Greenhouse Gas Initiative auctions have been used in Massachusetts to support the EV and EV charging markets.

2) Are any of these sources best suited for the investment needs and goals described above?

[11] Source: http://blog.rmi.org/blog_2014_04_29_pulling_back_the_veil_on_ev_charging_station_costs

[12] US Department of Energy, Costs Associated with Non-Residential Electric Vehicle Supply Equipment, November 2015. http://www.afdc.energy.gov/uploads/publication/evse_cost_report_2015.pdf

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Ultimately, the most efficient and effective way to deploy EV charging equipment where it needs to be is to primarily leverage private funds. However, there are instances in which it may make sense to complement private investment with other sources of funding. For example, deploying EVSE in multi-unit dwellings (MUDs), environmental justice communities, or in underserved markets.

However, whether investments are made entirely through private sources or in conjunction with other sources, it is essential that the EV charging site host have the choice of the equipment **and** services deployed on their site. Site hosts have preferences regarding the hardware and services related to EV charging. The Yale Center for Business and the Environment reviewed a range of EV charging equipment and business models and concluded that "[n]o single technology or business model available today is exactly right for all charging scenarios. There are pros and cons to each alternative, depending on the location and the driver base that the charging station aims to serve."[13]

The range of choices in EV charging goods and services is a strength indicating that the quickly evolving market is meeting the varied needs of its wide range of consumers. Site hosts are able to tailor the particular options for station fees, driver authentication, accessibility, payment collection and other transaction capabilities, advertisement, and how to configure and manage an array of data (e.g., energy, station usage, and environmental benefits). Site hosts are also the best suited to make choices about the number of charging stations needed on their site. This is especially true when site hosts participate in the purchase of the charging station, which will help ensure that charging stations are deployed efficiently and in places where they will get the most use.

Another critical set of choices that site hosts benefit from are those around pricing and access controls. There is an inherent link between the site itself and the behavior of the drivers that park there. Having the capabilities to communicate to EV drivers charging on their premise through innovative apps and product offerings, site hosts can communicate with drivers, effectively manage their property to ensure optimal utilization of the charging assets, and support their core businesses and operations.

3) Is ratepayer-funded investment aligned with certain goals and not others?
Ratepayer-funded investments are not inherently aligned or misaligned with statewide transportation electrification or broader power sector goals. Rather, the extent to which ratepayer-funded investments are aligned with statewide goals is driven more by the manner in which those investments are made and the ability for those investments to lead to the creation of widespread grid benefits. This is especially true if ratepayer funds are being invested in public EV charging infrastructure.

Different types of EV charging equipment can provide different types of value to drivers, site hosts, utilities, ratepayers, and the grid. "Smart" EV charging stations generally refers to the EVSE that have at least the ability to meter electricity passing through the unit, provide load management and scheduled charging features, provide for point of use payment and access control, and incorporate two-way communication from the EVSE to the driver as well as the station operator. These capabilities can be of significant importance to a utility as it can provide a wealth of information related to charging behaviors and load profiles, and can also enable various demand side management programs. Those programs could include programs for emergency curtailment via demand response, programs that modulate the vehicle charging rates, or even a time of use (TOU) rate specific to EV charging in the home through utilization of the embedded metrology. The associated communication, back office, and technology platform can

[13] Yale Center for Business and the Environment, 2015, "Financing Electric Vehicle Markets in New York and Other States" page 6.

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also be leveraged to provide enhanced station management features for site hosts and well as an improved driver experience through greater visibility and interaction.

The manner in which ratepayer-funded investments are carried out also affects alignment with state goals and the extent to which ratepayer investments will help, or hold back, the competitive market. From ChargePoint's experience in deploying more than 36,000 charging spots, site hosts that make a financial contribution to the charging station are far more likely to actively support the successful installation and ongoing preventive maintenance of the charging station because they have "skin in the game." Historic and projected growth in the EV charging market show that private dollars are increasingly flowing into the market. If ratepayer funds are directed to leverage private funds, the value of a program will increase, be more sustainable, and create a larger positive impact on deployment of EV charging equipment. Requiring site host participation in selecting the right equipment and services to meet the needs of the site ensures a competitive process and will foster ongoing innovation in the market.

4) In what ways might ratepayer-funded investment be balanced with other sources?
In almost all cases, ratepayer dollars must leverage the investment of private funds. It is essential that taxpayer- and ratepayer-funded programs accelerate the PEV market by supporting private investment, not supplanting it. Should ratepayer-funded investments be complemented by other forms of public investment, ChargePoint recommends that programs still require private matching payments to stretch the value of public investments, efficiently site equipment, and maintain healthy competition. Exceptions to private matching requirements could be made to overcome higher barriers in underserved markets.

6) How could a utility recover costs and receive compensation for various types of investment strategies (e.g., rate base with return on investment, program charge with performance incentive, etc.)?
There is a wide variety of investment strategies that can reduce barriers to deploying infrastructure that would support a healthy, competitive EV charging market. In addition, the simpler the program, the easier it is to go from utility commission approval to implementation. This efficiency will save ratepayer dollars and speed up the time to market.

One utility EVSE program design that is structured with simplicity in mind is the issuance of rebates for a set percentage of project costs. The rebate would apply to a portion of either installation or equipment costs while still requiring site host "skin in the game", with the exception in underserved markets. Under this program design, participating EV charging site hosts receive a utility incentive to support the purchase and installation of smart EV charging infrastructure that meet core functional requirements, such as collecting data and providing the ability for load management. Rebate programs have been utilized by Puget Sound Energy, Sacramento Municipal Utility District, and Los Angeles Department of Water and Power.

Cost recovery for utility rebates to can be approached in several ways. One approach would be to treat the rebate as a regulatory asset, thereby allowing a rate of return on the investment similar to other capital investments. Another approach, which has been proposed by National Grid in Massachusetts (DPU Docket 17-13), would recover a performance-based incentive tied to achieving the program's deployment target.

Another utility program design would focus on the installation of the electrical infrastructure on the customer side of the meter up to, but not including, the EV charging station itself. This is commonly referred to as the "make ready." The utility would construct, own and maintain the electric infrastructure from the distribution transformer through the customer meter up to the charging station. By covering this electrical infrastructure, the utility reduces costs for

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customers to deploy charging stations without the need to own and operate the charging station itself. This program design has been approved in cases before the California Public Service Commission by Southern California Edison and Pacific Gas and Electric, and is also proposed by Eversource in a case pending before the Massachusetts Department of Public Utilities (DPU Docket 17-05).

Under both program designs, the utility does not need to own and operate the charging stations; however, by providing incentives or covering certain costs, the utility is able to set the minimum qualification standards for the charging equipment to ensure data, load management, and other key utility needs are addressed.

IV. PEV Program Design

1) What other activities are important to consider?

ChargePoint has observed that clarifying the regulatory status of third party providers of EV charging equipment and services is an important step in order to provide the regulatory certainty necessary to support a competitive charging market and private investment. We respectfully urge Rhode Island to reach a statewide determination that the provision of EV charging services is not the generation, transmission, distribution, or sale of electricity to EV drivers.

Third-party owners and operators of EV charging stations do not generate, transmit, distribute, or sell electricity to end users. Rather, they use electricity to provide EV charging service to their customers. As other commissions have found, the use of electricity is just one component of the provision of EV charging service through a privately-owned charging station. The charging service provided by the charging station owner or operator is not delivered by that owner or operator over distribution system wires or circuits, but rather by a cord and a connector in the sole purpose of fueling an electric vehicle.

Determinations to this effect have been reached in California,[14] Massachusetts,[15] New York,[16] and seventeen other states throughout the country.

2) Which should be prioritized in a utility proposal, and which should be left to other entities?

ChargePoint agrees that the all of the identified potential activities will play an important part in Rhode Island's EV charging market. It is essential that Rhode Island ensure that the entities best suited to each activity. In most cases, this can most easily be accomplished by maintaining the responsibility for competitive market activities with private entities. As Rhode Island considers to expand the role of utilities into activities otherwise undertaken by competitive market actors, ChargePoint recommends that programs be designed to ensure that EV charging site hosts have the ability to choose the right equipment and services to meet the specific needs of the site, which in turn supports ongoing innovation in equipment and services in the competitive EV charging market.

[14] Order Instituting Rulemaking to Consider Alternative-Fueled Vehicle Tariffs, Infrastructure and Policies to Support California's Greenhouse Gas Emissions Reductions Goals, Assigned Commissioner's Scoping Memo at 4-5 (P.U.C. Rulemaking No. 09-08-009, filed Aug. 20, 2009)

[15] Investigation by the Department of Public Utilities upon Its Own Motion into Electric Vehicles and Electric Vehicle Charging, Order on Department Jurisdiction over Electric Vehicles, the Role of Distribution Companies in Electric Vehicle Charging and Other Matters (Mass. D.P.U. 13-182-A, issued Aug. 4, 2014).

[16] In the Matter of Electric Vehicle Policies, Declaratory Ruling on Jurisdiction over Publicly Available Electric Vehicle Charging Stations at 4 (NYPSC Case No. 13-E-0199, issued Nov. 22, 2013).

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3) Of the elements that should be prioritized in a utility proposal, what design options are aligned with policy goals?

ChargePoint recommends that the following design options be prioritized in a utility proposal:

- Encourages the deployment of smart charging stations with the load management, metering capacity, and communications abilities to support the achievement of widespread grid benefits;
- Engages in collaborative load management programs and rate design to ensure that load associated with greater EV adoption is shaped to benefit the grid; and
- Ensures that any investment of ratepayer funds to support the deployment of EVSE be done in a manner that supports sustainable and scalable growth in the competitive market and the critical role played by EV charging site hosts.

Conclusion

ChargePoint appreciates the opportunity to provide these comments. We look forward to continuing to work with the Commission, Division of Public Utilities and Carriers, and Office of Energy Resources and all stakeholders to develop and refine the policy and regulatory framework for transportation electrification in Rhode Island.

Dated: June 30, 2017

Respectfully submitted,

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