

**STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

Docket No. IR 20-004

Electric Distribution Utilities

Investigation of Electric Vehicle Rate Design Standards, Electric Vehicle Time of Day Rates for Residential and Commercial Customers

**COMMENTS OF CHARGEPOINT, INC.
ON STAFF RECOMMENDATIONS**

On January 16, 2020, the Commission issued an Order of Notice opening the above-captioned proceeding in accordance with SB 575-FN to determine whether certain rate designs should be implemented for electric vehicle charging stations and whether to implement electric vehicle time of day rates for residential and commercial customers. The Commission's Order invited written comments to be filed by February 20, 2020 addressing the questions set forth in SB 575-FN and in the Commission Staff's memorandum ("Staff Memorandum") filed in this docket on January 10, 2020.

The Commission stated that this proceeding raises questions related to what rate design standards applicable to electric vehicle charging stations would be consistent with New Hampshire Energy Policy defined in RSA 378:37 and likely to result in just and reasonable rates as required by RSA 374:2 and RSA 378:5 and :7, as well as whether the implementation of electric vehicle time of day rates for residential and commercial customers would be consistent with the restructuring policy principles defined in RSA 374-F:3, VI, would avoid undue or unreasonable preference as required by RSA 3878:10, and would likely result in just and reasonable rates consistent with RSA 374:2 and RSA 378:5 and :7.

On February 20, 2020, ChargePoint filed initial comments in this docket. ChargePoint, Inc. ("ChargePoint") subsequently participated in and delivered a presentation at a technical session convened by Commission Staff on February 28, 2020. On April 3, 2020, Commission Staff filed a set of recommendations based on comments to date ("Staff Recommendations"). On April 9, 2020, Director Howland issued a letter providing interested stakeholders the opportunity to submit comments on the Staff Recommendations by May 11, 2020.

Pursuant to Director Howland's April 9 letter, ChargePoint files these comments on the Staff Recommendations issued April 3, 2020.

I. INTRODUCTION

ChargePoint

ChargePoint is the leading electric vehicle (“EV”) charging network in the world, with scalable solutions for every charging need and for all of the places that EV drivers go: home, work, around town, and on the road. ChargePoint’s network offers more than 112,000 places to charge, including more than 200 spots in New Hampshire. With thousands of customers including workplaces, cities, retailers, apartments, hospitals, and fleets, ChargePoint provides an integrated experience enabling consistent performance, efficiency and reliability at every touchpoint whether one is using a mobile app, plugging into a charger, managing the station or analyzing charging data. On the network, drivers have completed more than 77.9 million charging sessions, saved upwards of 92 million gallons of fuel, and driven more than 2.2 billion electric miles.

ChargePoint delivers scalable solutions that enable businesses to support more drivers, add the latest software features and expand their electric vehicle and fleet needs with minimal disruption to overall business. Hardware offerings include Level 2 (“L2”) and DC fast charging (“DCFC”) products. ChargePoint provides a range of options across those charging levels for specific use cases including light and medium duty and transit fleets, multi-unit dwellings, residential (multi-family and single family), destination, workplace, and more. ChargePoint’s software and cloud services enable site hosts to manage charging onsite with features like Waitlist, access control, charging analytics, and real-time availability. All products are UL-listed and ENERGY STAR® certified.

ChargePoint’s primary business model consists of selling its smart charging solutions directly to businesses and organizations while offering tools that empower site hosts and station owners to deploy charging designed for their individual application and use case. ChargePoint provides charging network services and data-driven and cloud-enabled capabilities that enable site hosts to better manage their charging assets and optimize services. For example, using ChargePoint’s network capabilities, site hosts can view data on charging station utilization, frequency and duration of charging sessions, set access controls to the stations, and set pricing for charging services. These features are designed to maximize utilization and align the EV driver experience with the specific use case associated with the specific site host. Additionally, ChargePoint has designed its network to allow other parties, such as electric utilities and aggregators, the ability to access charging data and conduct load management to enable efficient EV load integration onto the electric grid.

II. COMMENTS ON STAFF RECOMMENDATIONS

ChargePoint supports the general direction of the Staff Recommendations and addresses below the fifteen separate recommendations offered by Commission Staff.

1. ***Cost of Service:*** Issue guidance that, to the maximum extent practicable, electric vehicle charging rate designs shall reflect the marginal cost of providing electric vehicle charging services.

ChargePoint has no comments on this Staff recommendation at this time.

2. ***Declining Block Rates:*** Issue guidance prohibiting declining block rates for any separately metered electric vehicle supply equipment.

Staff note that most commenters were supportive of a prohibition on declining block rates but also note that Eversource offers only declining block distribution and transmission rates to its general service customer classes.¹ Staff express a concern that a blanket prohibition on declining block rates for EV charging would create a barrier for Eversource's general service customers who might seek to install EV supply equipment at their premises without separate metering.² As a result, Staff recommend a prohibition on declining block rates only as applied to separately metered EV supply equipment.³

ChargePoint has no comments on this Staff recommendation at this time.

3. ***Time of Use Rates – Appropriateness:*** Issue guidance supporting time of use rates as an appropriate rate design component for electric vehicle charging.

ChargePoint supports this Staff Recommendation. TOU rates are a form of passive load management that can help to ensure most EV charging takes place at times that are beneficial to the grid. Encouraging this efficient use of the grid saves all electric customers money.

As ChargePoint noted in its initial comments filed February 20, 2020, when combined with time varying rates or another form of load management, electric vehicles exert a downward pressure on unit energy costs that lowers rates for all utility customers. A substantial portion of electricity costs accrue from serving system peak demands. It is the system peak that drives up distribution, transmission, and energy costs, while also increasing emissions. By avoiding charging at these times, customers with EVs introduce new load on the system at times when other load is low. This results in a flatter overall systemwide load shape, meaning that the grid is being used more efficiently over time. This efficiency reduces grid and energy costs per unit of energy sold by the utility. As a result, each unit of energy consumed by all customers – including non-EV customers – will be lower.

TOU rates do not shift costs to other ratepayers; in total they can recover the same costs as flat rates but they also provide price signals designed to affect customer behavior. As Staff correctly note, EV demand “is uniquely flexible relative to other end uses due to a significant amount of idle time.”⁴ Because most EV charging times are flexible, and throughout a 24 hour cycle there is typically significant idle time, the majority of EV charging customers can easily

¹ Staff Recommendations at 4.

² *Id.*

³ *Id.*

⁴ *Id.* at 6.

adjust their charging patterns in response to these price signals. Smart or managed chargers can make it even easier for customers to respond to TOU rates and charge during off-peak periods. For example, an EV driver with a smart home charger can connect her vehicle to the charger when she arrives home from work at 6 PM during an on-peak period but rely on the programming of the smart charger to wait to begin charging the vehicle until the off-peak period begins later in the evening.

Finally, ChargePoint notes that two of the state's utilities already have experience offering EV-TOU rates. New Hampshire Electric Cooperative currently offers an EV-TOU rate in its local service territory,⁵ while Liberty Utilities offers an EV-TOU rate with seasonal variation in its west coast service region.⁶

4. ***Time of Use Rates – Whole Facility/House vs Separately Metered: Issue guidance that any electric vehicle TOU rates offered by the utilities should provide an option for customers to enroll in a separate rate class specific to electric vehicle charging end use.***

ChargePoint generally supports this Staff Recommendation. The Commission should consider giving customers the option to elect to participate in either whole-house TOU rates or an EV-specific rate. Optional TOU rates that target EV charging can reap substantial economic and system benefits with much less customer education than might be required for general residential TOU rates. In addition, as Staff indicate in subsequent recommendations, charging stations with embedded metering can be used for EV-specific TOU rates, whereas the installation of new utility meters may be required before some utilities in the state can offer whole-house TOU rates.⁷

As noted above, two of the state's utilities already have experience offering EV-TOU rates. New Hampshire Electric Cooperative currently offers EV-TOU rates in its service territory.⁸ Liberty Utilities offers an EV-TOU rate with seasonal variation in its west coast service region.⁹

5. ***Time of Use Rates – Alternative Metering: Direct the electric distribution companies to file a feasibility assessment within 90 days relating to opportunities for offering an electric vehicle time of use rate for residential and commercial facilities that utilizes interval metering capability of devices other than a utility-owned meter. If an electric distribution company finds such an offering would not be feasible at this time, the assessment should nonetheless include a quantification of costs that would need to be incurred to deploy such a strategy, an explanation of any other barriers that may exist, and a roadmap for overcoming those barriers.***

⁵ See <https://www.nhec.com/take-charge-save/>.

⁶ See <https://california.libertyutilities.com/portola/residential/smart-energy-use/what-is-the-tou-ev-rate.html>.

⁷ Staff Recommendations at 6-7.

⁸ See <https://www.nhec.com/take-charge-save/>.

⁹ See <https://california.libertyutilities.com/portola/residential/smart-energy-use/what-is-the-tou-ev-rate.html>.

ChargePoint supports this Staff Recommendation. As Staff describe in their recommendations, ChargePoint's initial comments cited a number of initiatives in other state jurisdictions to utilize the embedded metering capabilities of smart charges offered by ChargePoint and other smart charging station providers.

Embedded metering technologies in EV charging hardware and software can be used both for offering EV TOU rates or for conducting other types of demand management programs, including programs that provide customer incentives to promote charging at off-peak hours rather than changing customer rates. Utility commissions traditionally required the installation of separate utility meters to implement EV-specific TOU rates. However, jurisdictions around the country are increasingly determining that such requirements inadvertently limit the achievement of load management goals due to the added extra cost of separate utility meters and the limited ability to support active demand response. For example, the Minnesota Public Utilities Commission has required utilities to evaluate "options to reduce the upfront cost burden for customers looking to opt into [EV-specific tariffs] and a discussion of sub-metering technologies available."¹⁰ The residential charging program by Green Mountain Power in Vermont includes both demand response and the use of embedded meter data to facilitate an unlimited off-peak charging plan.¹¹

There are a range of methods available on the market to facilitate the implementation of EV-specific rates without the added cost of secondary utility meters or sub-meters. Smart, or networked, EV charging stations enable load analysis and management, facilitate demand response and load control programs, and directly implement EV-specific TOU rates.

Networked charging stations can feature embedded energy meters, using two-way communications to transmit that data to a central service hosted by the EV networking service company. Many currently available EV charging solutions have substantially the same metering capabilities as traditional utility meters. For example, ChargePoint's single-family residential charging station, ChargePoint Home, meets or exceeds the requirements set forth in the electricity-as-motor-fuel sections of NIST Handbooks 44 (device code)¹² and meets the accuracy requirements of ANSI C12.1-2008 (1% class) as applied to embedded EVSE metering.

EV charging data can be accessed and merged with a utility's meter data management systems to associate the smart charger's load with utility meters and specific customers for tracking or billing purposes. The same platform and network can provide the necessary load management signals to control chargers.

6. ***Time of Use Rates – Energy, Transmission, and Distribution:*** *Issue guidance that any separately metered electric vehicle charging rates developed by the utilities should include a time-varying component for energy, transmission, and distribution. Once a utility has collected data regarding the average annual load*

¹⁰ Minnesota Public Utilities Commission Docket Nos. M-15-111, M-15-112, M-15-120: Order Accepting 2017 Annual Reports And Establishing Requirements For Next Annual Reports.

¹¹ See <https://greenmountainpower.com/product/home-level-2-ev-charger>; <https://www.utilitydive.com/news/ev-charging-promises-a-demand-response-bonanza-for-utilities-if-they-can-h/563453/>.

¹² NIST Handbook 44 Section 3.40.

shape of 500 electric vehicle rate customers, the Company shall solicit a separate tranche for full requirements, load following energy service within its default service solicitation for the electric vehicle customers using an average annual load shape specific to that customer class.

ChargePoint generally supports this Staff Recommendation.

7. ***Time of Use Rates – Consistency Among Utilities:*** *Issue guidance that any separately metered residential electric vehicle charging rate should: (1) be based directly on cost causation; (2) incorporate time varying energy supply, transmission, and distribution components; (3) have three periods (e.g.- off peak, mid-peak, and peak); (4) be seasonably differentiated (e.g.- summer and winter); (5) have an average price differential between off-peak and peak of no less than 3:1; and (6) have a peak period no longer than four hours in duration.*

ChargePoint generally supports this Staff Recommendation. ChargePoint believes further discussion of the details of any potential TOU rate offering would be appropriate in a proceeding where such a rate is proposed, as the record in this proceeding is limited.

8. ***Time of Use Rates – Quantification of Incremental Costs:*** *Require each utility seeking approval of an electric vehicle time of use rate to provide an assessment of incremental costs associated with that offering, including but not limited to those costs associated with billing, metering, and marketing.*

ChargePoint does not object to this Staff Recommendation. However, ChargePoint recommends that, in addition to quantifying incremental costs, utilities should be encouraged to quantify and track the benefits that EV load can offer to all ratepayers, including reduced per unit rates as a result of increased system efficiency.

9. ***Seasonal Rates:*** *Issue guidance expressing a preference for seasonally differentiated electric vehicle charging time of use rates consistent with the underlying cost causation of the summer and winter seasons.*

ChargePoint offers only limited additional comments on this subject at this time, beyond initial comments filed on February 20. Consistent with comments provided by a number of other stakeholders as Staff have summarized in their recommendations,¹³ ChargePoint's initial comments indicated that seasonally varying TOU rates can hold benefits as well as potential drawbacks. Drawbacks include that a seasonally varying rate is more sophisticated than most customers are accustomed to and may be confusing. However, ChargePoint notes that much EV charging can be automated using smart charging stations in order to shift charging to off-peak hours without customer intervention, regardless of season.

¹³ See Staff Recommendations at 10.

10. ***Interruptible Rates:*** *Issue guidance that interruptible rates are not an appropriate rate design for electric vehicle charging.*

ChargePoint supports this Staff Recommendation. As Staff indicate, interruptible rates would substantially impair the ability of drivers to ensure that they have adequate electricity to drive when needed.¹⁴ Interruptible rates for EV charging would be akin to shutting down gas stations on short notice.

11. ***Load Management Techniques:*** *Issue guidance that load management techniques may be an appropriate strategy for electric vehicle rate design, but express a clear preference for delivery of such offerings in conjunction with TOU rate offerings, to the extent reasonably practicable.*

ChargePoint supports this Staff Recommendation but makes certain clarifying points. First, TOU rates are in effect a form of load management. Therefore, while ChargePoint supports a range of load management options, some of these options are designed to achieve the same goals and may ultimately be duplicative. Others can be readily combined or targeted to different customer groups.

Load management techniques can include, for example:

- Time of use rates;
- Financial incentives such as bill rebates or other “perks” (e.g. gift certificates) to charge during off-peak times;
- “Peer pressure” or informational campaigns to persuade customers to avoid consuming power during high-usage periods;
- Utility-managed charging such as throttling customer consumption or pushing charging schedules, in exchange for a customer incentive;
- Aggregated load management featuring incremental throttling carried out by a third-party aggregator; and
- Energy efficiency measures such as promoting Energy Star-certified EV charging stations.

As ChargePoint noted in its initial comments, “active” managed charging generally refers to programs whereby a utility actively seeks customers who are willing to stop or slow down the rate at which they charge their EVs temporarily during times of high demand in exchange for an incentive from the utility. This can be accomplished through a number of means, including via third party load aggregator demand response programs, using direct customer messaging, or via utility control over smart charging stations that connect to a network. Active demand management can be particularly helpful to maintain reliability and lower system costs during unexpected weather or other high-demand events. These measures may not require special metering.

¹⁴ *Id.* at 10-11.

ChargePoint believes a more complete discussion of these options would be beneficial as New Hampshire plans its approach to integrating increased EV load into the electric system. Additional information provided by pilots may help to inform approaches to EV load management. Pilots can help to provide a better understanding of customer interest in and tolerance for different measures, as well as the appropriateness of such measures for different use cases. The Commission should consider encouraging pilots as part of the upcoming Energy Efficiency Resource Standard.

12. Demand Charges – Peak Coincidence or Volumetric Pricing Structure

Alternative: Issue guidance that demand charges may be a component of an appropriate rate design for high demand draw charging stations, but that utilities should explore alternatives to the customer peak demand charges prevalent in New Hampshire, such as the use of volumetric pricing structures or demand charges which are based on coincidence with system peak and other peaks reflective of cost causation. Demand charges are not likely warranted for most residential charging applications.

ChargePoint is supportive of the direction that Staff takes in this recommendation but is concerned the Staff recommendation lacks sufficient specifics to be implementable. In order to ensure that the recommendation can be meaningfully and readily implemented, ChargePoint recommends that the Commission modify this recommendation as follows:

Issue guidance that the utilities should file within 120 days proposals for alternatives to customer demand charges, which may take the form of pilots to test short-term or long-term alternatives. In the interests of efficiency, the Commission may consolidate its review of these pilot proposals into a single combined proceeding if appropriate. Pilots may explore various alternatives to customer peak demand charges, including but not limited to:

- *Replacing or pairing demand charges with higher volumetric pricing;¹⁵*
- *A monthly bill credit representing a percentage of the nameplate demand associated with installed charging stations behind a commercial customer’s metered service;¹⁶*

¹⁵ Pacific Power has implemented such a rate in Oregon, providing for a demand charge transition discount of 90% and an on-peak energy charge transition discount of 10% on May 15, 2017, and reducing the demand charge transition discount gradually each year to 0% on May 15, 2026 while increasing the on-peak energy charge transition discount gradually each year to 100% on May 15, 2016. 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.

¹⁶ 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>.

- *Implementing a multi-phase “rate limiter”;*¹⁷ and
- *Forgiving a portion of billed demand when the customer has a low load factor.*¹⁸

All of these alternatives are designed to address cost causation while supporting the increased integration of electric vehicle charging stations into the electric system and have been approved for implementation in other states.

Alternatively, in the interests of completeness and efficiency, the Commission should consider combining its review of EV demand charges with its review of EV TOU rates, in a single adjudicative proceeding. This alternative is addressed further in number 15 of these comments, below.

ChargePoint concurs with the majority of the commenters in this proceeding that traditional demand charges were designed for load such as manufacturing load and are not well-suited to EV charging station load. The Regulatory Assistance Project describes this phenomenon in greater detail in the April 2020 report entitled, “Taking First Steps: Insights for States Preparing for Electric Transportation” (at 16):¹⁹

Customer demand is sometimes measured at the same time as the system’s peak period (to calculate what are called coincident peak demand charges), but often is measured whenever the customer’s individual peak demand occurs, regardless of time. Charges calculated based on the highest instantaneous usage at a given location are called non-coincident peak demand charges.... These so-called demand rates traditional found in C&I tariff structures were designed for large manufacturing facilities, which use electricity much more constantly than EV charging. As a result, they do not account well for the flexible nature of, nor the actual costs to serve, EV charging.

Because traditional demand charges do not reflect the costs to serve EV charging and hinder the adoption of EV charging stations, the Regulatory Assistance Project recommends that they should be reconsidered by state public utility commissions.²⁰ ChargePoint strongly agrees with this assessment and encourages the Commission to take action on this substantial barrier to adoption.

In discussing rate options, the Staff report references a Maine Public Utilities Commission order issued earlier this year approving a rate pilot in that state.²¹ ChargePoint notes that pilot program was approved with very limited stakeholder input or vetting pursuant to

¹⁷ Ameren implemented such a rate in Illinois, which was 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. See <https://www.ameren.com/-/media/rates/files/illinois/aie14rtds4.pdf>.

¹⁸ Xcel Minnesota’s general service rate offers an example of this approach, see https://www.xcelenergy.com/staticfiles/xcel/Regulatory/Regulatory%20PDFs/rates/MN/Me_Section_5.pdf.

¹⁹ See <https://www.raonline.org/knowledge-center/>.

²⁰ See Regulatory Assistance Project, “Beneficial Electrification of Transportation,” at 68 (Jan. 2019), available at <https://www.raonline.org/wp-content/uploads/2019/01/rap-farnsworth-shipleysliger-lazar-beneficial-electrification-transportation-2019-january-final.pdf>.

²¹ Staff Recommendations at 16.

a short timeline imposed by a legislative mandate. ChargePoint cautions against accepting that unvetted and as yet untried model, which is inconsistent with broader trends around the country. It is typically preferable to minimize demand charges and maximize the use of predictable volumetric rates, particularly when utilization of the charging infrastructure is low. The Maine pilot does not appear to achieve this goal. Many other states have already successfully implemented alternatives to traditional demand charges that can serve as models from which to develop a New Hampshire-specific alternative.

In their report, Staff cite a reluctance by the New York Department of Public Service (“NY DPS”) to adopt demand charge alternatives for DCFC.²² ChargePoint notes that the NY DPS only rejected a “demand charge holiday.”²³ However, EV rate options are by no means limited to just “traditional demand charges” or a “demand charge holiday.” As these comments indicate, many states have already implemented demand charge alternatives that can serve as models for New Hampshire. Utilities that have implemented such alternatives are now numerous, including National Grid, PECO Energy Company, Tucson Electric Power, Tacoma Power, San Diego Gas & Electric, Pacific Power, Southern California Edison, Hawaiian Electric Company, NV Energy, Public Service Company of Minnesota, and Pacific Gas and Electric Company.

ChargePoint also recommends that such an alternative rate be optional for charging station site hosts as site hosts with higher utilization may prefer more traditional rates.

13. ***Demand Charges – Rate Design Alternative Analyses:*** *Require Eversource to file for review within 90 days the results of any analysis conducted by its affiliates relating to rate design alternatives to demand charges or if it is not available, then file it when it becomes available.*

ChargePoint supports this Staff Recommendation. Information on rate design alternatives implemented in other utility territories can also be instructional, therefore ChargePoint has provided citations above to a range of rate design alternatives developed in other jurisdictions.

14. ***Demand Charges – Peak Coincidence Billing/Metering Feasibility:*** *Issue guidance directing each utility to file within 90 days a feasibility assessment of incorporating peak-coincident demand charges into its billing and metering system for the purposes of offering an electric vehicle charging rate to commercial and industrial customers.*

Please see ChargePoint’s comments above and in the initial comments regarding demand charges.

²² Staff Recommendations at 15 (citing NH DPS white paper).

²³ See NY DPS Case No. 18-E-0138, Department of Public Service Staff Whitepaper Regarding Electric Vehicle Supply equipment and Infrastructure Deployment at 59 (Jan. 13, 2020) (“The Commission specifically declined to grant a demand charge holiday”).

15. ***Time of Use Rate Proposal Filings for Separately Metered EV Chargers:*** *Open an adjudicative proceeding and direct each electric utility to file within 120 days, consistent with the guidance above: (1) an electric vehicle time of use rate proposal for separately-metered residential and small commercial customer applications; (2) an electric vehicle time of use rate proposal for separately metered high demand draw commercial customer applications that may incorporate direct current fast charging or clustered level 2 chargers. Both proposals should be accompanied by testimony explaining how those rates were developed, any plans for marketing residential electric vehicle time of use rates, and how the rate is consistent with the Commission guidance.*

ChargePoint supports the direction of this Staff Recommendation. However, ChargePoint recommends that the Commission open such a proceeding to simultaneously consider both Time of Use Rate options and alternatives to demand-based rates. As Conservation Law Foundation (“CLF”) notes in its comments on the Staff Recommendations, “[d]emand charges are not severable from other DCFC rate issues.”²⁴ CLF consequently recommends that the Commission “evaluate these interconnected rate design topics in a single adjudicatory proceeding.”²⁵ ChargePoint concurs that this would be administratively efficient and allow for a more complete consideration of related issues.

ChargePoint also notes that some utilities find that load management techniques other than TOU rates can also be effective at promoting customer behavior including shifting EV charging to off-peak hours. ChargePoint generally supports providing utilities with the flexibility to develop a portfolio of load management techniques and incentives including, but not limited to, TOU rates to best serve their customers.

III. ADDITIONAL COMMENTS AND RECOMMENDATIONS

Foundational Infrastructure: Utility “Make Ready” Programs

In addition to the comments above regarding the recommendations included in Commission Staff’s April 3, 2020 report, ChargePoint notes that many parties in this proceeding submitted comments on the utility’s role in Staff Recommendations issued on “the role of the utility” as requested. Although there were some disagreements on this subject, many stakeholders expressed strong support for foundational infrastructure programs such as utility make ready initiatives, in which the utility would either own or provide incentives toward the cost of make ready infrastructure.

“Make ready” refers to the line extension on the distribution side of the meter as well as wiring, conduit, and sub-panels that are often needed to provide power to EV supply equipment (“EVSE”) located in a site host’s parking lot on the customer side of the meter. Make ready infrastructure is essentially an extension of distribution system infrastructure, except that most of it is located behind the site host’s meter and so would usually be considered the responsibility of

²⁴ CLF Comments on Staff Recommendations at 2.

²⁵ *Id.*

the site host. Deploying and maintaining distribution system infrastructure is one of a utility's core competencies.

One advantage of make ready programs is that the utility effectively leverages the private capital of the site host to purchase the actual EVSE. When site hosts share in the total cost of installing the EVSE, program dollars can go further. A make ready program also has the advantage of focusing the utility on one of its core competencies – long-lasting distribution infrastructure – and allowing the site host to choose the charging equipment and network services that best meet its needs and support its own goals for installing the EVSE.

Although make ready programs require an upfront investment, electrification can bring substantial cost savings through increased efficiency of the electric system as well as increased efficiency over internal combustion engines. As noted in the introduction to these comments, a recent study by Synapse Energy Economics found that in the territories of PG&E and Southern California Edison, the revenue provided by EV charging exceeded the costs of serving new EV load (including the cost of utility incentive programs) by more than 3 to 1.²⁶

The Commission should encourage the utilities to propose cost-effective make-ready investments that will improve access to EV charging stations, help spread electric system costs more broadly, and facilitate the development of a flexible grid resource. Eversource has already filed an EVSE make ready proposal in Docket No. DE 19-057. Accordingly, ChargePoint proposes the following recommendation:

Issue guidance to the utilities to file EVSE make ready pilot proposals no later than March 31, 2021. Any utility that has already filed a general rate case or will file such a case prior to March 31, 2021, is directed to propose a make ready pilot in the general rate case in lieu of a separate proceeding, if possible.

In addition, the Commission should dismiss the motion in Docket No. DE 19-057 entitled “Motion of Staff to Remove the Electric Vehicle Proposal from Eversource’s Request for Increased Distribution Revenue,” dated February 5, 2020. In that motion, Staff requested to eliminate from Commission consideration an EV make ready proposal advanced by Eversource in its rate case. Staff’s motion was based on a concern that “the Commission must include its investigation within one year of the date of the filing, at the end of May 2020,”²⁷ and therefore “the limited period of time allowed for review” should not be “diverted from the consideration of the merits of Eversource’s \$70 million distribution revenue increase.”²⁸ Staff further pointed to this proceeding as a potential venue for resolution of the make ready case.²⁹ However, a substantial extension has been granted in the rate case, alleviating the time pressure that initially caused Staff to be concerned.³⁰ Furthermore, it has become clear that this investigatory docket is

²⁶ Synapse Energy Economics, “Electric Vehicles Are Driving Rates Down,” at 4 (Feb. 2019), available at <https://www.synapse-energy.com/sites/default/files/EVs-Driving-Rates-Down-8-122.pdf>.

²⁷ Staff Motion at 3.

²⁸ *Id.* at 4.

²⁹ *Id.*

³⁰ See DE 19-057, Staff Letter to Dir. Howland Re: Status of Investigation into Change to Distribution Rates, dated March 24, 2020 and Eversource Energy Letter to Dir. Howland Re: Confirming Extension dated March 26, 2020.

not the appropriate venue to determine the acceptability of Eversource's make ready proposal. A rate case is a more appropriate forum for doing so. The Commission therefore should not exclude consideration of Eversource's make ready proposal from Docket No. DE 19-057.

Efficiency: EV Charging Supply Equipment

ChargePoint additionally encourages the Commission and the New Hampshire utilities to consider providing rebates for high-efficiency electric vehicle charging stations that are capable of load management as part of the upcoming three-year Energy Efficiency Resource Standard. ENERGY STAR-rated chargers can use up to 40 percent less electricity than other chargers when not in active use. According to the EPA, "[i]f all EV chargers sold in the U.S. met ENERGY STAR requirements, the savings in energy costs would grow to more than \$17 million and prevent 280 million pounds of greenhouse gas emissions."³¹

IV. Conclusion

In conclusion, ChargePoint supports the Commission's inquiry into time of use rates and the potential benefits of EVs. EVs, in combination with appropriate load management techniques such as time of use rates, can exert a downward pressure on unit energy costs that lowers rates for all utility customers. EV load is a flexible and beneficial grid resource well-adapted to simple and cost-effective load management techniques. In addition, EVs are energy efficient, clean, and promote energy security and local jobs.

ChargePoint appreciates the opportunity to provide these comments on the April 3, 2020 Staff Recommendations.

Respectfully submitted,



Melissa E. Birchard
Keyes and Fox, LLP
18 Loudon Rd. #1393
Concord, NH 03301
Tel.: 857-276-6883
E-mail: mbirchard@keyesfox.com
ATTORNEY FOR CHARGEPOINT, INC.



Kevin George Miller
Director, Public Policy
ChargePoint, Inc.
Tel.: 917-836-4954
E-mail: kevin.miller@chargepoint.com

May 11, 2020

³¹ See https://www.energystar.gov/products/other/ev_chargers.