THE STATE OF NEW HAMPSHIRE
before the
PUBLIC UTILITIES COMMISSION

ELECTRIC DISTRIBUTION UTILITIES

Electric Vehicle Time of Use Rates

Docket No. DE 20-170

COMMENTS ON ELECTRIC VEHICLE TIME OF USE RATES AND FEASIBILITY ASSESSMENT BY PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY

INTRODUCTION

On August 18, 2020 the New Hampshire Public Utilities Commission ("Commission") issued Order No. 26,394 in Docket No. IR 20-2004 directing that a new docket be opened for the Commission to consider utility specific electric vehicle ("EV") time of use ("TOU") rate proposals and further directed Commission Staff ("Staff") to develop the alternative metering feasibility assessment concept and a timeline for filing of electric vehicle time of use rate proposals. Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource" or the "Company") is committed to supporting the use of EVs by its customers and is pleased the Commission is taking steps to better serve an emerging market segment. The Company is prepared to file proposals for EV TOU rates and assess the feasibility of alternative metering by April 30, 2021 as directed in the procedural schedule for this proceeding approved by the Commission. The Company further notes that it has separately agreed to file an EV infrastructure proposal that includes a demand charge alternative within four months of Commission approval of a settlement agreement filed in Docket No. DE 19-057, and to propose revised tariffs for its residential time of day rate within 6 months of approval of the same settlement agreement.

With respect to EV TOU rates, the Company's proposal in this proceeding will follow guidance provided by the Commission in its order from Docket No. IR 20-004. Specifically, the Company expects to file proposals which are responsive to Commission findings that:

- Appropriate initial electric vehicle charging rate designs would reflect the marginal cost of providing electric vehicle charging services to the maximum extent practicable;
- Declining block rates would not be appropriate for electric vehicle charging for separately metered Electric Vehicle Supply Equipment ("EVSE");
- It is appropriate to charge seasonal rates to account for the seasonality of winter and summer cost drivers on the electric system;

- Interruptible rates would not be appropriate to implement for EV charging;
- Load management techniques may be an appropriate strategy for EV rate design; and
- It is appropriate for the utilities to propose a separately metered EV TOU rate.

Eversource is also prepared to further address issues related to advanced metering functionality associated with EVSE embedded meters. However, the Company notes that the Commission declined to require the utilities to file feasibility assessments related to alternative metering and instead directed Staff to further develop the concept with input of the parties in the initial stage of any adjudicative proceeding. Accordingly, the Company provides additional perspective on alternative metering within these comments to support further conceptual development .

RATE DESIGN

In Order No. 26,394 the Commission provided guidance upon which to rely in developing EV rate design proposals and discussed a number of considerations upon which its guidance is based. Recognizing the proposal to be developed is intended to support new services for applications yet to be implemented, Eversource is committed to developing a proposal that factors in parameters believed to be a necessary part of the design for such applications. The Company expects that the design will be founded on cost of service and key ratemaking principles and will reflect practical considerations for its implementation. While Eversource works to develop a rate proposal in this proceeding, it will also be developing a time varying residential rate proposal and demand charge alternative pursuant to the settlement agreement in Docket No. DE 19-057, as noted above. Many of the same rate design and practical considerations for developing rates will apply, although for different applications, in both contexts.

In developing time varying EV rates, the Company recognizes that any proposal represents an initial offering, where the extent to which customers will enroll is not known. The design of rates should reflect the characteristics of design outlined by the Commission, and also the practical realities and feasibility of implementation. The Company anticipates design discussions to address these requirements and considerations, as well as the timing and requirements to achieve design objectives. Eversource believes it is important to develop a proposal that can most readily be implemented by the Company and that provides customers with an option for charging their EVs that they understand and that they find beneficial and practical to adopt.

While there are a number of ways to develop a rate design proposal, practical considerations are an important element of the design. While rate design needs to reflect not only variable but the fixed and ongoing costs of providing service, the initial design must reflect both known and expected costs, without the benefit of having data from actual enrollment and participation. An initial offering that can be implemented in a cost-effective manner, and that supports actual customer enrollment in the near term, can provide key data and insights into technologies and applications from which adjustments to rate design, as well as potential new, expanded or more advanced rate design, may be developed.

BUSINESS CASE ANALYSIS

The Commission directed the utilities to provide an assessment of incremental costs with their EV TOU rate proposals, including but not limited to those costs associated with billing, metering, and marketing. While the Commission declined to require utilities to directly quantify benefits as part of an EV TOU rate filing, Eversource expects that the potential costs of implementing an EV TOU rate will require a business case supportive of such investments be filed with any request for the Commission to approve an EV TOU rate offering. The Company expects that an appropriate business case assessment will consider the value proposition to participating EV customers, compare implementation costs to estimated savings, consider alternative approaches and align with other operational and policy considerations. Eversource encourages Staff and stakeholders to consider the parameters and direction of a business case analysis that would appropriately inform Commission review of EV TOU rate proposals.

The Company is particularly mindful that the value of a TOU rate to an individual EV customer may be substantially constrained by the volume of charging activity that takes place under such a rate, and that EV TOU rates are likely to be offered on an "opt-in" basis. The net savings achievable through charging activity by an individual residential EV customer electing a TOU rate may not be particularly compelling even under appropriately designed rates – particularly if reduced by additional customer charges and meter costs appropriately borne by participants. The Company expects it will be important to separately consider the business case for commercial charging activity under TOU rates or other alternatives given differences in expected load and unique considerations associated with public charging and other commercial applications.

The thoughtful consideration of the customer value proposition and broader benefits of EV TOU rates is important given that the costs of implementing some TOU rate designs in the near-term are likely to be significant. Existing metering options and supporting systems are suitable only to support TOU designs similar to current TOU rate structures. Supporting a new TOU design with more determinants with the existing systems would require new meters, new meter configurations, billing system enhancements and testing of both upstream and downstream systems before the rates could be implemented. More complex TOU rates would also require interval meters that are an expensive option for limited EV charging. The meters are not only significantly more expensive, they require per customer on-going cellular communication charges. Eversource's data management systems for interval meters also requires manual employee work for validation, estimation and editing of meter data to produce monthly billing determinants. The Company expects that communication, data management and billing system costs would remain as meaningful components of EV TOU implementation even if feasible opportunities to use alternatives to utility-meters were identified.

Given the potential costs associated with implementation of certain EV TOU rate designs, the Company expects it will be appropriate to evaluate alternative approaches that have the potential to produce comparable benefits in the near-term at lower cost. Eversource has recommend load management as one such alternative based on its existing capabilities and demonstrated success with such offerings. The Company remains open to considering other alternatives of interest to Staff and stakeholders.

ALTERNATIVE METERING CONCEPT

In comments Eversource filed with the Commission in Docket No. IR 20-004, the Company noted there are numerous implementation, operational, and security considerations with respect to use of data sources other than utility-owned meters in support of EV TOU rates. A complete assessment of the feasibility of introducing alternative data sources to the Company's integrated metering and billing processes will likely require development of an end-to-end solution based upon specific requirements.

The Company remains eager to work with Staff and stakeholders to assess opportunities to serve EV customers using a range of technological approaches and anticipates it may assess the feasibility of multiple approaches to effectively utilize alternative data sources. However, the Company does expect it its assessment will focus on the use of embedded EVSE capabilities rather than separate metering under 3rd party ownership. Eversource also expects its feasibility assessment will be informed by more detailed review of existing models for alternative metering. The Company notes that many of the current examples of alternative metering use that were referenced in Docket No. IR 20-004 pertain to small pilots with meaningful restrictions. The Xcel Energy EV Pilot in Minnesota, for example, included only 100 customers and both the Minnesota and Wisconsin examples referenced in Docket No. IR 20-004 utilized EVSE equipment that was sourced and owned by the utility. The Company recommends that Staff and stakeholders similarly consider these and other existing approaches to use of meter alternatives in their further comments regarding distribution company assessment of alternative metering feasibility.