

**STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION**

DOCKET NO. IR 22-076

Electric Distribution Utilities

Investigation of Whether Current Tariffs and Programs are Sufficient to Support Demand Response and Electric Vehicle Charging Programs

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE,
d/b/a EVERSOURCE ENERGY REPLY COMMENTS**

Public Service Company of New Hampshire, d/b/a Eversource Energy (“Eversource” or the “Company”) submits these reply comments pursuant to the procedural schedule approved by the Commission in this docket. Eversource’s reply comments focus on possible improvements and expansion opportunities to existing programs and rate designs that are accessible in the relatively near-term and at a reasonable cost to all customers, though there are additional options that are also possible in the long term.

Please note that, to the extent Eversource does not address any specific comments offered by a stakeholder in this docket, that fact should not be construed as either support for or opposition to the substance of such specific comments.

DEMAND RESPONSE

Eversource reiterates its support for demand response (“DR”) programs intended to incentivize customer load reduction at times of peak demand, thereby reducing forecasts of capacity requirements, through incentives structured as pay-for-performance rather than through time-varying rate designs.

In particular, the Company agrees with Fermata Energy that a pay-for-performance program structure for vehicle-to-grid (“V2G”) resources is most appropriate and helps to lower the risks associated with the electric vehicle (“EV”) being a mobile rather than a stationary asset since it may not be available during DR events. Eversource notes that two sites with Fermata’s bidirectional chargers are already participating as battery assets in Eversource’s affiliate’s ConnectedSolutions daily dispatch DR program in Massachusetts. EVs that participate effectively as a “battery” (i.e., as V2G assets) do receive greater compensation as compared to other EV resources, which only have load curtailed rather than discharging energy during events.

Both the Community Power Coalition of New Hampshire (“CPCNH”) and the Conservation Law Foundation (“CLF”) address the potential for using time-of-use (“TOU”) rate structures to manage customer demand. Eversource continues to believe that incentive programs can achieve the same objective, and likely be more effective at achieving that objective in a shorter period of time, without the need for costly infrastructure or billing system upgrades. CLF

suggests that TOU rates be offered on an opt-out basis, which the Company notes would likely require significant upfront cost associated with AMI infrastructure installation and deployment. Given the low enrollment of customers in the available TOU rates thus far in New Hampshire, implementing such rates on an opt-out basis, though it addresses the low enrollment issue, could create customer confusion and upset. DR programs give utilities the ability to help customers manage to those rates without the burden of significantly modifying their behavior to reap meaningful benefits.

CLF stated it is in favor of bring-your-own-device (“BYOD”) programs, but it acknowledged that AMI should be pursued to enable active demand response (“ADR”) programs. Eversource would note that AMI does not allow the utility to do any load management for DR since the utility cannot communicate with the meter, so the benefit of AMI to DR would be purely informational and after-the-fact, where a customer’s performance and participation would be analyzed after the event with appropriate baselining, etc., as is currently done for large commercial and industrial (“C&I”) customers with AMI. CLF’s point is well taken, however, that AMI would serve to lower cost barriers to entry for low and moderate customers who often are unable to afford the devices that enable DR participation.

CLF also supported winter DR programs in its comments. However, in the near term, winter programs would provide little to no system or ratepayer benefit because the main objective of DR programs is to lower the annual system peak, which sets electricity costs for the following year. Currently, ISO New England is a summer-peaking system, so there is limited or no opportunity for system peak load reduction during the winter months. While increased electrification of heating for buildings might create the need for a winter DR program at some point within the next 10 years, and the Company will continue to monitor those developments, the near-term focus will remain on summer rather than winter DR programs. Eversource’s affiliate ran a winter DR program in Massachusetts for two seasons in 2019-2020 and 2020-2021, but it ceased to offer the program after that because it was not cost-effective. In addition, it is likely that a majority of the C&I curtailment for the winter program came from fossil fuel generation rather than a reduction in HVAC or process loads. Fossil fuel generation is being phased out of eligibility for DR program participation in Eversource’s other jurisdictions, as it is inconsistent with those states’ decarbonization goals, and the Company believes it is not appropriate for New Hampshire DR programs either.

Finally, CLF makes a good point regarding incentive programs that encourage co-locating battery storage with EV direct current fast charging (“DCFC”) infrastructure, as that allows managing DCFC during system peaks in a way that has minimal customer impacts.

ELECTRIC VEHICLES

As noted in Eversource’s initial comments, in other jurisdictions the Company’s affiliates have EV managed charging programs to encourage drivers to manage the timing of their charging, and the Company believes that utility load management programs such as managed charging have been the most efficient and cost-effective solution for encouraging beneficial charging behavior that can achieve charging policy objectives such as reducing peak demand.

Other commenters also expressed support for managed charging strategies. And the Commission has recently acknowledged the merits of such programs:

We encourage Eversource to explore flexible solutions, including managed charging, for New Hampshire with best practices derived from Connecticut and Massachusetts, that especially target lowering coincident peak demand systemwide. We note that such managed charging may fit within Eversource's triennial plan in New Hampshire if it can be shown to be cost effective. It is apparently included in energy efficiency plans in Massachusetts. Exhibit 38; see also, RSA 374-F:3, X (includes demand management within the energy efficiency goals of electric restructuring).

See Order No. 26,797 (March 31, 2023) at 7, issued in Docket No. DE 20-170. Eversource appreciates the support for EV managed charging programs and is actively considering expansion of those programs for EV customers in New Hampshire.

ELECTRONIC DATA INTERCHANGE (EDI)

EDI in the electric utility context was designed and functions as a mechanism for data-sharing between utilities and CEPS and now utilities and municipal aggregations. Most typically, that data is provided on a "batched" basis only at periodic intervals, which currently means overnight on business days. EDI is not designed for the exchange of real-time metering or system operational data, and therefore it is not useful for any type of real-time control or dispatch of DERs. EDI functions well in executing its intended purpose but is not an appropriate tool for an expanded role of facilitating the policy objectives at issue in this docket.

The Community Power Coalition of New Hampshire ("CPCNH") offered a number of comments regarding the Electronic Data Interchange ("EDI") systems used by Eversource and the other electric distribution utilities. Generally, CPCNH takes the view that EDI is dated technology with limited functionality and adaptability; as stated in the previous paragraph, however, it is Eversource's assessment that EDI is well-designed to accomplish the end purposes for which it was intended. But CPCNH also notes that other organized markets with competitive electric supply choice use EDI systems to make hourly load data available to competitive suppliers through the 867 functionality, and this unfortunately is not entirely accurate, as EDI 867 does have certain limitations as it is currently employed in New Hampshire. The EDI 867 function when added is capable of providing historical customer usage data to suppliers, including community power aggregations ("CPAs"), and includes up to 12 months of kWh and kW usage information. But currently in New Hampshire, *interval* data is not included in that information.

For Eversource, customer interval data is available only as a paid service, under the Eversource tariff, for those customer service locations with interval data recorders installed and with data provided in 30-minute intervals. See Tariff NHPUC No. 10 – Electricity Delivery, at Original Page 33. This is because that service is the only way that such data is accessible to both customers and the Company, as the Company's billing systems only receive meter data that has been modified for the billing systems by the meter data system MV90, and the Company's

systems do not receive or store raw interval meter data. To provide interval meter data, the Company would first have to modify the billing systems to obtain and store the raw data, and to do that would require reconfiguration of the systems, the degree of which is currently unknown. But even then, the current employed iteration of EDI 867 function, as used in New Hampshire, would not be capable of transferring the data without modification. So EDI 867 could serve the purposes stated by CPCNH, but not until those additional steps are taken.

CPCNH also expressed a concern that EDI is incapable of showing negative usage data, i.e., if a customer-generator or battery storage device, including a vehicle-to-grid system, exports power to the grid, instead of showing the quantity as a negative number, the EDI system only shows such exports as zero usage for the customer. While it is true this information is currently not sent through EDI transactions, modifications could be made to EDI so this information could be transferred, but only if and only to the extent that the data is available. But the availability of such data is also contingent on a couple of significant variables, namely the age of the net metering installation and the associated metering capabilities, and whether the billing system receives the negative usage data for storage and transfer.

Eversource has some concerns about CPCNH's suggestion that, in order to enable a "transactive retail electricity market," suppliers and customers should have the ability to opt-in to advanced metering infrastructure ("AMI") to provide interval metering, for those utilities that do not already have such metering, and that the suppliers and customers would pay "the incremental cost over the type of new meter the utilities are buying anyways for new and replacement AMR meters." This approach could avoid the issue of stranded costs created from the early retirement of non-interval meters, while allowing "early adopters and market innovators to make the case for [the adoption of AMI]." On its face, this suggestion seems equitable and easily implemented, but there is an element to implementing AMI in this fashion that makes it an inequitable proposition. Installing AMI, whether it is through a regulatory mandate or at a supplier's or customer's election, will necessarily require additional metering and billing system infrastructure modifications to support it, even if only for a handful of customers. Those additional system infrastructure modifications would require a significant commitment of resources and related expenses that would be socialized to all customers, and therefore create a substantial cost shift for any customer who does not adopt AMI. As customers (likely a large majority of total customers) that do not adopt AMI would receive no direct or indirect benefits from the costs to implement AMI for those that choose it (likely the relatively few "early adopters and market innovators"), this strategy is not an equitable one. This does not mean that Eversource is opposed to the adoption of AMI on the whole, but the Company would recommend that AMI be implemented in a way that minimizes customer subsidies.

Overall, a discussion about what EDI is intended to do, and what it does and can be adapted to do is important context when discussing policy objectives such as those at issue in this docket. Should the Commission choose to further explore modifications or replacement of EDI beyond this investigative docket, Eversource would recommend a more detailed examination and analysis of the current and possible future functionality of EDI and the processes necessary to harness those capabilities, as those capabilities are considerable, but entail a good deal of complexity. The selection of what functionality to adopt and how to implement it is an involved process that requires in-depth input from several relevant stakeholders in addition to the work of

actual implementation. These procedural and substantive elements need to be discussed together to fully understand the scope and possibilities of EDI in the context of certain policy objectives and doing so will facilitate any decision on what approach to take to achieve those objectives.

CONCLUSION

Eversource appreciates the opportunity to provide these reply comments to address issues raised by other stakeholders in their initial comments, as well as to supplement its positions on many of such issues. Eversource looks forward to further engagement on these policy areas with the Commission and other interested parties.