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

Liberty Utilities (Granite State Electric) Corp.
d/b/a Liberty

Electric Vehicle Time of Use Rates

Docket No. IR 20-170

February 2, 2021

A. Introduction

The conclusion of Docket No. IR 20-004, Investigation of Electric Vehicle Rate Design Standards, Electric Vehicle Time of Day Rates for Residential and Commercial Customers, resulted in the Commission opening this docket to provide for the filing and review of proposals for time of use rates and an alternative metering feasibility assessment.

During the January 19, 2021, technical session the utilities were asked to circulate draft outlines of their proposed alternative metering feasibility assessments by February 2, 2021. Liberty's outline follows.

B. Meter Ownership, Testing for Accuracy, and Collection of Meter Data

Today, Liberty collects data through its AMR network (drive-by collection), cellular network, or manual meter reads in order to bill customers on their usage. The meters collecting the data are owned, operated, and tested by the Company in accordance with the Puc 300 rules.

The utilities are required to meter and bill in accordance with the Puc 300 rules and the Puc 1200 rules to ensure customer bills are timely and accurate. Neither a third party owned meter nor that third party is regulated by the Commission and subject to these rules. As such, the customer may or may not be billed on accurate readings. This presents a problem where the data being used to bill a customer may result in an over or under bill, causing frustration and confusion for the customer, which would be exacerbated when the utility fixes that error.

Third-party ownership of meters used for billing purposes by the utilities may also have unintended consequences, giving rise to the need for rules and guidelines that allow customers, the utilities, and the Commission to feel confident the data received from those third parties meet or exceed the current requirements of the Puc 300 rules.

In the case of ChargePoint charging stations with meters, it is Liberty's understanding that their meters only measure the output from the station to the vehicle that is being charged, and do not measure the not the whole site load. While the amount of whole station load that is not being metered as part of charging the vehicle might be relatively small, the utility will still have to provide a utility-owned meter before the charging station to capture the full site load. The load in excess of actual charging may include other load on that customer's circuit shared with the charging station (e.g., parking lot lights) or other load that will not be metered. ChargePoint's offer to provide metering data for the customer who owns the station only gives that customer knowledge and data of what the station usage. Liberty notes that metering any charging station load must require the meter to record all site load, not just charging load from the vehicle pulling up and plugging in.

C. Cyber Security

Cyber security is at the forefront of the Company's concerns on alternative metering feasibility. In the Company's hearing on its battery storage pilot, Docket No. DE 17-189, the Commissioners expressed great concern about hacking the batteries and meters being used to bill usage. The Company's response to those concerns included using the same utility grade meters the Company has used for years to bill customers, and making sure the batteries do not link to any of the Company's systems, avoiding potential hacking of SCADA and other systems.

Any alternative metering options will similarly need to have substantial cyber security controls since the data will not be transferred from the meter owned, operated and billed by the utility, but from a third party that may use a cloud-based or other API system to send the data to the utility. Liberty also notes that the Commission currently has no jurisdiction over these third parties.

D. Pilots

Liberty recommends that pilots to determine alternative metering feasibility should be theoretical at this time and should not be implemented in the "real world" until the data gathering has concluded and demonstrates results that address the issues discussed above. A theoretical pilot may include parallel data gathering by third parties and running through exercises where the data is gathered by the third party and delivered to the utility to then be evaluated compared to actual data gathered by the utility meter.

E. Conclusion

An alternative metering feasibility study should be just that, a theoretical study to provide in-depth data gathering and analysis to determine whether third party metering could meet the standards necessary for future billing purposes.