



April 3, 2022

Daniel C. Goldner, Chair
New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301

RE: DE 21-078: Electric Vehicle Make Ready and Demand Charge Alternative

Comments by ReVision Energy, Inc.

Dear Chair Goldner,

Further to our statement of qualification and comments contained in my petition to intervene 3/11/2022, I would like to submit the following comments and analysis for consideration:

Based on the lack of a make ready program and a high demand charge, owning and operating charging stations in Eversource territory is untenable at practically any attainable utilization rate.

If New Hampshire expects to receive its share of the \$5 Billion federal funding from the National Electric Vehicle Infrastructure (NEVI) program (\$17 million over 5 years), it will need to attract owners and operators to invest in charging stations. To do this, it will need to initially remove demand charges and significantly reduce them in the long term while EV ownership grows and to respond to the “spiky” loads of EV charging and the fundamental limitations on maximum utilization rates.

Under current utility conditions, New Hampshire will at best, be a challenging state to own and operate charging stations for the next 10 years until most vehicles have transitioned to EVs. It will most likely take over 10 years before EV charging as a standalone business is profitable with modestly attractive returns on invested capital. It is worth considering that the average life of a vehicle with an internal combustion engine is 12 years. Therefore, we can expect a vehicle sold in 2022 to still be on the road in 2034.

Please also consider that New Hampshire is by geographic area, a very low population density state and even when widespread EV ownership exists, most stations will see low traffic volume, particularly in the more rural parts of the state.

If New Hampshire wants to support economic development and attract tourism in all regions of the state, it will need to remove the utility barriers that exist in the form of demand charges and help support the support the economics of public charging station deployment by sharing in the infrastructure cost.



Also, for **all** demographics to share in the financial benefits of EV ownership, widespread and affordable public charging will be critical.

Public and workplace charging is essential to make EV ownership possible and affordable for lower income households that may not have ready access to charging, especially if they live in an apartment or park on a street. Furthermore, affordable EVs have smaller batteries with less range. This range is further reduced in the cold temperatures in New Hampshire. These vehicles will need more frequent charging and access to public chargers, or the owners will not be able to travel freely, and consequently it will limit how far they can travel to and from work.

Creating a healthy economic case for public and workplace charging station investment is **the** equitable solution and will offer **all** ratepayers the choice of lower cost transportation.

ReVision Energy has many years of experience installing EV chargers and a detailed knowledge of the associated costs. While we support the \$2 million make ready proposal in DE 21-078, this is very limited and sufficient only to cover sites in the statewide VW RFP. Based on the number of accounts served by Eversource and relative to the Unitil program and Eversource Massachusetts (\$95 Million), we believe that the make-ready program in NH should be approximately \$20 Million.

ReVision Energy does not support the demand charge alternative proposal in DE 21-078 or The Office of Energy's Time of Use proposal. With the VW and NEVI funded programs, the owner and operator are required to offer a minimum capacity 24 hours a day, and therefore load management is not an realistic option. Furthermore, it is not reasonable to expect a driver to plan their highway travel and charging based on peak and off peak rates.

ReVision Energy does not support the DCA in DE 21-078 as the volumetric rate merely shifts the burden of the demand charge to the distribution charge resulting in less than a 2 cent margin between what we can charge the customer. When operational costs are considered, it will perpetually make a loss and that doesn't consider the return of investment capital.

I propose that Eversource offers EV charging station owners an "opt in" program that removes the demand charge from their current rate class for a minimum of 5 years or 30% utilization (whichever comes first).

After 5 years or 30% utilization, the demand charge is phased in by percentage increments as utilization increases. Please refer to the Eversource and National Grid Massachusetts DCA proposals. If utilization declines, the demand charge reverts to the previous year.



Highlights:

- Account holder stays on currently available commercial rate.
- 10 year program – Maximum demand charge assessed never exceeds 50% during the 10 year period.
- 5 year enrollment period.
- Limited total accounts – first come, first served.
- Total accounts eligible for program varies based on the forecasted need for significantly more public level 2 (Rate G) and less higher powered DCFC (similar to the VW RFP requirements) and Ultra High powered DCFC (similar to the NEVI requirements) that will be in the GV rate.

The goal of my proposal is to encourage early investment, stabilize risk and enable at least the build out of a solid foundational network of public charging stations throughout the state. By limiting the number of eligible accounts and the enrolment period it will accelerate the development and investors that step up and commit to early investments.

Please find our EV charging station demand charge economics spreadsheet attached. I encourage all participants in DE 21-078 to use the spreadsheet to try different energy and utilization rates. The highlighted cells can be adjusted.

Please don't hesitate to send me questions about the spreadsheet and the assumptions. I hope that it will help the commission better understand the challenges in making a return on investment from EV charging stations.

Sincerely,

/s/ James Penfold

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Attached: Spreadsheet: "ReVision Energy DE 21-078 Eversource demand charge station economics 4.3.22"

Cc: service list via email