STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION
DOCKET NO. DE 21-078

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY

PETITION FOR ELECTRIC VEHICLE MAKE-READY AND DEMAND CHARGE ALTERNATIVE PROPOSALS

CLOSING STATEMENT OF CLEAN ENERGY NH

Clean Energy NH (CENH), intervenor in this docket, is a non-profit member-based organization dedicated to supporting policies and programs that strengthen our state's economy by encouraging the transition to renewable energy and promoting energy efficiency. CENH offers the following closing statement for Docket No. DE 21-078, Eversource Energy - Electric Vehicle (EV) Make-Ready and Demand Charge Alternative Proposals, as instructed by the Commission in Procedural Order on August 4, 2022.

CENH supports the settlement agreement and thanks the intervenors for their careful work on this proposal, work that has spanned several years. Further, CENH thanks the Commissioners for their careful review of the facts of this docket. In closing, CENH notes the commission should approval this settlement agreement because it addresses two key barriers to investment and development of these public charging stations – demand charges and utility make ready investments. Approval of this settlement is in the public interest and consistent with state energy policy as it will benefit New Hampshire ratepayers, economy, public health, and the environment.

Electric Vehicle Benefits

EVs are a vital element of the energy transition as the transportation sector is the single largest consumer of energy in New Hampshire, responsible for 42 percent of the state's total end-use energy.[1] As electric vehicles (EVs) use 25 percent of the energy of a conventional ICE vehicle to travel the same distance,[2] EVs present clear economic, energy, and environmental opportunities for the state, and New England as a whole, by reducing overall energy consumption, reliance on energy imports, and the emission of air pollutants and greenhouse gas emissions. As the ISO-New England grid becomes even cleaner, and electric power supply costs fall, due to the transition away from coal, oil, and natural gas, and through the interconnection of distributed energy resources and large renewable energy projects, the net economic, energy, and environmental benefit of EVs will grow.

Realizing EVs' Benefits

However, maximizing the economic, health, and environmental benefits of EVs requires upfront investment to support EV adoption by New Hampshire residents and businesses, as well as the arrival of EV driving out of state travelers and tourists who wish to make New Hampshire a destination. Both adoption and arrival require a robust publicly accessible EV charging network.

[1] Calculations based on US DOE State Energy Data System (SEDS): 1960-2017 https://www.eia.gov/state/seds/seds-data-complete.php?sid=NH.

[2] US DOE (2019). All-Electric Vehicles, Office of Energy Efficiency & Renewable Energy, https://fueleconomy.gov/feg/evtech.shtml, (Last accessed April 18, 2019).

ISO-New England estimates that between 2022 and 2031, New England will see 1.5 million new EVs on the road, representing nearly 3000 percent more than are on the road today.[3] Therefore, the next few years represent a crucial period of early adoption for EVs, and New Hampshire regulators must be looking to the future and enabling the development of an energy system that will support New Hampshire's economy and energy users.

Barriers to Electric Vehicles

It is estimate that up to 80 percent of passenger EV charging occurs at homes, public charging is critically needed to support EV owners that lack home charging, EV drivers with access to home or beyond the round-trip range of travel, and the growing number of travelers and tourists in the state driving EVs. In fact, drivers' concern about lack of available charging infrastructure is a significant barrier to EV adoption.

As we heard during testimony from the NH Department of Environmental Services (NHDES), the State has prioritized development of direct current fast charging (DCFC) stations at 50-mile intervals along the six (6) EV charging corridors designated by the US Department of Transportation. However, at that spacing interval, there would need to be nearly 50 DCFC locations for just the numbered highways. At this time, New Hampshire has only five (5) non-tesla DCFC stations located in four municipalities, so the state needs an additional 45 DCFC stations installed on the highways. However, to support residents and travelers moving beyond of

[3] ISO-NE (2022). Capacity Energy Load Transmission Report, ISO-New England, https://www.iso-ne.com/system-planning/system-plans-studies/celt/.

this central highway charging network, New Hampshire will need many more chargers sited on feeder roads and in city, town, and village centers.

The public charging network is needed as millions of EVs are slated to reach the roads of the US Northeast and the Eastern Canadian provinces within the next decade. It is forecast that by 2024/2025 EVs will reach price parity with internal combustions engine vehicles and continue to fall in price after that for the next several years as supply chains are built out. There are already EV models on the road now that cost less to buy, maintain, and fuel than almost every other gas or diesel vehicle. As the purchase price continues to fall as battery process drop, this means that EVs will become the most affordable new vehicle for all consumers. And for those who favor used cars, the EV secondary market will continue to mature, and EV adoption will rise across all income levels. Finally, as noted during testimony most automakers have set deadlines to end most production of gas and diesel vehicles by 2030 and 2035.

A robust, interconnected publicly accessible EV charging network is vital to ensure that New Hampshire residents without access to home charging can access this more cost-effective technology and are not locked into buying and fueling combustion engine vehicles. However, this public charging network established before they arrive. In fact, the lack of a network may impede the adoption of EVs as consumers, unwilling to risk the chance of being left without adequate charge, hold onto gas and diesel vehicles.

As we've heard on both days of testimony, the economics are simply not there to develop, maintain, and operate a public EV charging facility. At present time, with relatively few EVs on the road, a DCFC may be used by only a few vehicles each day, or in remote areas, a few vehicles each week. This restricts the revenue public charging stations can generate; revenue

needed to pay for upfront capital costs, including utility upgrades, and operating costs, including demand charges.

A significant barrier to developing the necessary EV charging network, as we heard in testimony are the demand charges and utility make ready costs incurred by site operators as they are significant source of costs that undermine the economics of public charging. New Hampshire municipalities have expressed how the two factors are stifling investment in public charging.

In a previous docket, DE 20-170, the Commission received a letter and verbal comment provided by the Jeff Moulton, the Chair of the Town of Derry's Net Zero Task Force. Mr. Moulton provided documentation of the chilling impact that demand charges can have on public charging facilities. In Derry's case, they disconnected their four (4) level 2 chargers are incurring demand charges that represented 78 percent of the bill for the chargers. Had utilization rates been higher, this cost breakdown would not have been the case. With EV adoption expected to rise significantly in the coming decade, New Hampshire will need more chargers not fewer. But we need the chargers now to support those earliest residents and visitors.

Similar, CENH was contacted by the Town of Bristol, located just off Interstate-93 in Grafton County. They had been working for the past several months to develop a VW application for a DCFC station with co-located Level 2 charging ports at their library. However, the engineering estimates that Eversource provided regarding the necessary electrical upgrades totaled $18,952.18. This proved to be too expensive for the site operator that they had been working with, who subsequently backed out, even if they had received a VW award. As a result, the Town was unable to go forward with the project.

<u>Role of Settlement Agreement</u>

The state is facing a pressing chicken-and-egg problem[4] that is impeding the electrification of transportation; a problem with impacts on residents as well as the travel and tourism interests in the state. A robust public EV charging is needed to support EV adoption, and widespread EV adoption is needed to support widespread public EV charging network development. Limited targeted support is needed to overcome a key hurdle and launch the buildout of the necessary charging infrastructure.

This settlement agreement, proposing make-ready programs and demand charge alternatives provides a necessary fix, while be targeted, temporary, and limited, that will reduce some of the economic hurdles to develop New Hampshire's public charging during this period of early adoption. Companies that can access the make-ready program funds will be more likely to invest in projects with limited cashflow opportunities in the near term. Companies that can utilize the demand charge alternative will be able to project the costs and revenues with greater certainty.

While the state has $4.6M in funding available for EV infrastructure through the VW settlement and may see additional infrastructure funding from US Department of Transportation, this total funding is insufficient to induce private developers to build out the necessary public charging network. Further, these dollars must be used to support as many projects as possible as it is unlikely that a large influx of additional federal investment will be forthcoming. Make ready funding and demand charge alternative funding enable the state to match this limited pool of dollars. The demand charge alternative goes even further, increases the opportunity to develop charging stations even farther from populations centers in North Country and off the main travel

[4] Kadoch, C. (2020). Roadmap for Electric Transportation: Policy Guide, Regulatory Assistance Project, https://www.raponline.org/EV-roadmap/.

routes. This will benefit drivers in those communities directly as well as allow tourists to comfortably reach their destinations and use them as bases for additional travel.

Conclusion

The transition to EVs is inevitable as the major auto manufacturers have signaled that they are making the major investments needed to transition to EVs and sales are growing year over year. These vehicles will need a public charging network established before they arrive. In fact, the lack of a network may impede their adoption, and the New Hampshire economy and environment will miss out on benefits of rabid deployment. The settlement proposes a limited, targeted investment to address critical economic gaps that offer significant returns to the New Hampshire economy, communities, and environment.

CENH strongly recommends that the Commission approve the settlement to eliminate economic barriers to public charging during this period of early adoption. New Hampshire must be looking to the future and establishing rates that will encourage early investment in a widespread network of charging that spans the entire state and meets the demand of residents, businesses, and visitors alike.