



CLEAN ENERGY NH

Your Voice in All Energy Matters

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July 18, 2023

Jared Chicoine, Commissioner
Department of Energy,
21 S. Fruit St., Suite 10,
Concord, New Hampshire 03301-2429

**RE: INV 2023-002, Investigative Proceeding Relative to Compensation of Energy Storage Projects for Avoided Transmission and Distribution Costs
Clean Energy NH Responses to Request for Comments - Set 1**

Clean Energy NH (CENH) offers the following in response to the NH Department of Energy's (Department) Request for Comments in the Order of Notice issued on June 23, 2023. CENH provides an overarching introduction followed by specific comments on the process and substance of the investigation. In this filing, CENH will repeat a significant amount of information filed in recent Public Utilities Commission (PUC) dockets and the companion Department investigation, INV 2022-001 as the participants among all these proceeding do not overlap completely with one another.

Introduction

CENH is a statewide non-profit organization dedicated to strengthening New Hampshire's economy by transitioning to a local, reliable, clean energy system with lowest possible energy costs that benefits all NH citizens, local governments, and businesses. In fact, CENH's economy-wide, bipartisan focus has enabled the organization's membership to rapidly grow to include a significant proportion of the state's population, energy system, and economy.

CENH business members do include more than 20 solar companies with hundreds of NH employees. Our members also include a variety of hydro power companies, whose facilities have provided consistent, low-cost, clean energy to the local governments and in-state businesses for decades. However, CENH is not a trade organization that is focused on advancing the agenda of a narrow segment of the NH business community.

CENH now has 36 municipal members, representing over 425,000 NH citizens, nearly one-third of the state's population. CENH also represents the interests of hundreds of NH business and residential. They are all looking to reduce their energy costs by accessing affordable, clean energy supplies. Furthermore, all three of the state's utilities are CENH members. And finally, CENH actively partners with multiple NH state agencies, as well as travel and tourism interests, chambers of commerce, regional planning commissions, state colleges, universities and community colleges, and workforce development entities across the entire state. As such, CENH

is unique in this proceeding as we bring a perspective informed by no single entity or type of entity, but instead by all sectors of the NH economy and most segments of NH society.

CENH's focus is, therefore, equally broad, and inclusive. The clean energy measures we advocate for include not only renewable energy sources, but also energy efficiency, strategic electrification (*e.g.*, buildings and transportation), and energy storage. Each of these energy technologies present economic, energy, and environmental opportunities for the state as they are increasingly the least-cost method to reduce the state's overall energy consumption and, therefore, energy costs. In addition, each of these energy solutions provide an ancillary benefit of avoiding fossil fuel consumption, which reduces the "export" of energy dollars into the state, while also improving environmental quality and public health measures. Finally, when integrated and deployed in a coordinated fashion, each of these technologies can also be utilized as "non-wires alternatives",¹ and, therefore, impact distribution and transmission system costs as well.

While the topic of this investigation could narrowly be viewed as simply "energy storage", CENH views this investigation as a broader opportunity to enable the energy transition away from fossil fuels and toward local, low-cost, reliable energy supplies through a combination of demand management and integration of intermittent energy sources.

Comments

At this time, CENH does not have conclusive answers to the specific questions that the Department included in its Order of Notice. CENH looks forward to sharing more substantial and focused answers during the investigation after it is able to consult with its members and partners.

CENH does offer two more general sets of comments at this time, related to the substance under consideration and to the process itself.

Substance

CENH believes that the scope and scale of the near- and long-term energy transition needs to be kept at the forefront of parties' minds in the investigation.

ISO-NE reported at a Federal Energy Regulatory Commission meeting on June 20, 2023, that their forecasting indicates that supply and demand for electricity should roughly balance out in the region through 2027. Further, ISO-NE indicated that the liquefied natural gas facility in Everett would no longer be needed for reliability purposes. The ISO-NE analysis credited stronger than expected growth in solar power, fewer retirements of existing power plants, and flat demand for electricity. However, the ISO-NE president and CEO noted at this same event

¹ Navigant Research defines NWA as: "[A]n electricity grid investment or project that uses non-traditional T&D solutions, such as distributed generation, energy storage, energy efficiency demand response, and grid software and controls, to defer or replace the need for specific equipment upgrades, such as T&D lines or transformers, by reducing load at a substation or circuit level." Navigant Research (2017). Non-Wires Alternatives: Non-Traditional Transmission and Distribution Solutions - Market Drivers and Barriers, Business Models and Global Market Forecasts. Cited in Feldman, Brett (2017). Non-Wires Alternatives: What's Up Next In Utility Business Model Evolution, Utility Dive, <https://www.utilitydive.com/news/non-wires-alternatives-whats-up-next-in-utility-business-model-evolution/446933/>.

that demand for electricity is expected to spike in the early 2030s as cars, homes, and businesses are electrified to address to reduce carbon emissions as required by the statutory GHG reduction goals in the other five New England states.

Specifically, ISO-NE's final 2023 transportation electrification forecast, released on April 28, 2023, projects that there will be 2.2 million electric vehicles (EVs) on the road in New England in 2031.² This represents a 4000 percent growth over the vehicles on the road in 2022. However, it is worth noting two things. The first is that ISO-NE's 2022 final EV forecast had projected that "only" 1.5 million EVs would be on the road by 2031.³ ISO-NE's revision upward is consistent with its forecasts over the past decade for both energy efficiency and solar PV adoption; ISO-NE annual forecasts for the energy transition tend to be conservative. The second is that the true number of EVs on the road in New Hampshire and New England may be even higher due to the high number of EVs that will be on the road in Quebec and New York, as these states originate many travelers to the region. A similar forecast for the adoption of heat pumps for residential and commercial buildings in New England has also been made.⁴

ISO-NE's forecasts for transportation and building electrification indicate not only that there will be a significant growth in electric generation, but also for expensive electric power distribution and transmission infrastructure. The economic and environmental costs of which could be very high. As batteries hold the potential to reduce system and local peak demand and improve load factor, they have the potential to reduce infrastructure costs and should be compensated for the "dollars not spent."

Process

With respect to the process, CENH offers the following.

CENH is concerned that the Department, understandably, elected to build this Investigation's process on the back of the previous PUC process. While CENH was a party to that proceeding, CENH notes that several significant changes have occurred since the last substantive discussion in PUC Docket IR 20-166. These changes include:

- Repeal of the RSA 378:38-40, the Least Cost Integrated Resource Plan statute per HB281 (2023)⁵ (*unsigned by the Governor*);

² ISO-NE (2023). *2023 Final Transportation Electrification Forecast*, ISO-NE Load Forecast Committee, https://www.iso-ne.com/static-assets/documents/2023/04/transfx2023_final.pdf.

³ ISO-NE (2022). *2022 Final Transportation Electrification Forecast*, ISO-NE Load Forecast Committee, https://www.iso-ne.com/static-assets/documents/2022/02/evf2022_forecast.pdf.

⁴ ISO-NE (2021). *Draft 2022 Heating Electrification Forecast*, 2022 CELT Report, Load Forecast Committee, https://www.iso-ne.com/static-assets/documents/2021/12/lf2022_draft_heating_elec.pdf

⁵ NH House Bill 281, *relative to least cost integrated resource plans of utilities; municipal hosts for purposes of limited electrical energy producers; the cost of compliance with disclosure of electric renewable portfolio standards; repealing the energy efficiency and sustainable energy board; and procedures for energy facility siting by the site evaluation committee*, 2022, https://www.gencourt.state.nh.us/bill_status/legacy/bs2016/billText.aspx?sy=2023&id=172&txtFormat=html.

- Opening of an Interconnection Investigation by DOE per SB262 (2022)⁶;
- Formation of the Department of Energy in 2021 per HB2 (2021); and
- Significant turnover of the energy storage stakeholders.

Due to these recent changes in the policy landscape, CENH believes that a significant refresh is needed.

CENH would also suggest that the Department consider a revised approach to the one outlined in the Order of Notice. In the Order, the Department requested stakeholders respond to each of the specific questions the Department was directed to “*consider*” in RSA 374-H:3. It is CENH’s view that the considerations enumerated in the statute do not bind either the Department or the stakeholders in the Investigation. CENH feels that the more focus should be on the actual mandate in RSA 374-H:3,

“The department of energy shall investigate ways to enable energy storage projects to receive compensation for avoided transmission and distribution costs, including avoided regional and local network service charges, while also participating in wholesale energy markets. The department shall investigate how this might be done for both utility-owned and non-utility-owned energy storage projects, as well as for both behind-the-meter storage and front-of-the-meter storage.”

By focusing on the broader mandate, CENH feels that the parties and the Department will be able to step back and conduct a more complete assessment of the problems and opportunities with respect to enabling energy storage. For instance, “enabling” should be viewed as more than simply pricing and compensation. Even if there were appropriate compensation for the full value stack offered by battery storage, additional policies may be needed to be sure it can be built. “Enabling” could include interconnection standards and standard enforcement, as well as fire codes and enforcement. By focusing on the considerations alone, stakeholders may overlook critical policy tools that are needed to establish a robust battery energy market in New Hampshire.

Further, CENH believes it would be beneficial for parties to identify the technologies that the investigation and final report should consider. For instance, related to the above-mentioned transition in EVs, CENH believes that the issue of EV batteries providing grid services should be included as part of discussions and included in the final report. EVs and EV supply equipment (EVSE) are being designed and equipped to provide back-up power to buildings. There is significant interest in the potential to use EV batteries as demand response resources, capable of providing lower cost, lower emitting power to the grid.⁷ In fact, there is a pilot already under development at Plymouth State University, which is located in the NH Electric Cooperative

⁶ NH Senate Bill 262, *relative to customer generators of electric*, 2022, https://www.gencourt.state.nh.us/bill_status/legacy/bs2016/billText.aspx?sy=2022&id=2063&txtFormat=html.

⁷ IRENA (2019). *Innovation Outlook: Smart Charging For Electric Vehicles*, International Renewable Energy Agency, <https://www.irena.org/publications/2019/May/Innovation-Outlook-Smart-Charging>.

service territory.⁸ This potential exists as EVs can spend up to 90 percent of their time parked and peak periods tend to occur between 4 and 8 pm, which is when many vehicles are parked⁹ for the remainder of the day. The provision of grid services represents an opportunity to access an otherwise wasted asset. While the standards and technology are still emerging for vehicle to grid (“V2G”), New Hampshire policy makers and regulators should plan how to take advantage of this inevitability as soon as it is safe and reliably.

CENH also recommends that the Department consider a format that includes not only traditional two technical sessions, but also convene subgroups as needed to work on narrower issues on behalf of the group. CENH appreciates the opportunities to provide written briefs and attend technical sessions, but we have observed the benefit of smaller informal working groups can have to work through a single issue and come to a resolution that can gain support of a broader group.

Finally, CENH recommends that the Department consider whether resources exist to hire a consultant to facilitate this process. CENH has deep appreciation for the Department staff, which has a tremendous portfolio of responsibilities at the legislature, the PUC, and managing an immense volume of federal dollars. Managing processes such as the investigations or subsequent working groups requires a considerable amount of time and specific expertise. In the past, the PUC employed technical consultants and process facilitators to manage stakeholder discussions and dynamics in the energy efficiency docket, the grid mod docket, and others. In addition to freeing up Department staffs’ time, it also allows staff the freedom to fully participate in the Investigation rather than constantly transition between the roles of umpire, pitcher, and batter.

CENH looks forward to reviewing the comments submitted by the other stakeholders in this investigation and engaging in a constructive dialogue.

Sincerely,



Chris Skoglund
Director of Energy Transition
Clean Energy NH

⁸ Brooks, D. (2022). Granite Geek: Instead Of Filling My Car, What If My Car Could Fill The Station? Concord Monitor, May 2, 2022, <https://www.concordmonitor.com/vehicle-to-grid-NH-46138404>.

⁹ IRENA (2019). Innovation Outlook: Smart Charging For Electric Vehicles, International Renewable Energy Agency, <https://www.irena.org/publications/2019/May/Innovation-Outlook-Smart-Charging>.