STATE OF NEW HAMPSHIRE
BEFORE THE
NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY
2020 LEAST COST INTEGRATED RESOURCE PLAN

DOCKET NO. DE 20-161

CLOSING REPLY BRIEF OF CLEAN ENERGY NH

Clean Energy NH ("CENH") submits this Rely Brief to the Public Utilities Commission (the "Commission") in response to the Closing Briefs filed by the Office of Consumer Advocate ("OCA"), the Department of Energy (the "Department"), and Eversource Energy ("Eversource") on June 5, 2023. CENH first reiterates its recommendations to the Commission filed in its Closing Brief, before offering its response to each of the other parties to the docket in turn, reserving most of its substance for Eversource at the end. As noted in our Closing Brief, these recommendations are based on the Docket Record and are consistent with CENH's original testimony (Exhibit 19). Further, this reiteration is made with the full understanding that the amended version of HB281(2023) passed the NH House on June 29, 2023. This bill is expected to be signed by the Governor and will repeal the NH least cost integrated resource plan (LCIRP) statutes, RSA 378:38-40, and will take effect 60 days after enactment. The Commission should provide clarity as to how this docket will proceed considering this fact. CENH will address the points raised by each of the parties in their Closing Briefs as they relate to CENH's recommendations, as well as make relevant mention of the passage of HB281 as needed.

I. RECOMMENDATIONS TO COMMISSION

CENH restates its recommendations to the Commission that were filed on June 5, 2023, in its Initial Brief. These recommendations are based on the Docket Record and consistent with CENH's original testimony (Exhibit 19). Again, CENH affirms these despite the HB281(2023) vote on June 29,

2023.

1. The Partial Settlement Agreement between Eversource and the NH Department of Energy (DOE) should be rejected;
2. The LCIRP as filed (Exhibit 1) and amended by the Supplement (Exhibit 3) should be rejected and Eversource should be directed to resubmit a new and complete plan that meets the full requirements of each section of the LCIRP as detailed in RSA 378:37- 40; and
3. That Eversource's requirement that distributed energy resources (DERs) interconnecting into the grid pay the meeting the company N-1 reliability standard be suspended pending the NH Department of Energy's IP 2022-01 - Investigative Proceeding Relative to Customer-Generator Interconnection[2] and any necessary legislative and regulatory processes.

4. That Eversource's definition of non-wires alternatives (NWAs) as being exclusively company owned (Walker, Tr. 4/25/23 at 61:11) should be deemed inconsistent with industry practices and counter to the goals of achieving a least cost energy system.

Adopting these recommendations will send a clear signal to NH utilities and state agencies that the Commission's rulings are based on the text in the law, therefore, expects that the utilities will follow the current and future laws during their business.

II. REPLY TO THE DEPARTMENT OF ENERGY

CENH notes that the Department elected not to file even the shortest of Closing Briefs on June 5, 2023. Therefore, replying to DOE would seem impossible. However, the lack of the Department's Closing Brief is entirely consistent with its general treatment of this LCIRP process and speaks to why Recommendations 1 and 2 should be accepted by the Commission.

While CENH generally has a tremendous amount of respect for the Department staff and their

commitment to ensuring the provision of safe, reliable, and cost-effective energy supplies to all the state's residents and businesses, in this instance, they simply did not show up.

While the Department has been deeply engaged on numerous other topics, they appear to have missed the capacity for the LCIRP statute to deliver innovation and value to the Granite State. This was apparent in their willingness to let Eversource submit a plan that demonstrably failed to meet the basic requirements of the law. Further, and not technically part of the Docket record, DOE was the only entity that spoke in favor of repealing the LCIRP statute. And they pushed to repeal it without any suggestion of what would be better.

The Department's support for the approval of Eversource's LCIRP filings was a dereliction of duty in that it would leave the utility with no plan for how to manage future load growth incurred by building and transportation electrification, or the growth of solar and other renewable energy systems. There is no other statute that governs energy planning in the state, and by giving Eversource a pass, the Department paved the way for New Hampshire to undergo a disorderly transition as fossil fuel technologies are gradually replaced by more efficient, and cost-effective energy sources and electricity end uses. It will allow the utility to pad their revenue requirement by considering individual solutions to load growth challenges or individual generator interconnection requests, rather than considering potentially lower cost holistic solutions.

Rejecting the partial settlement, as well as the Eversource LCIRP filings would send a signal to the Department that they need to read deeper than what the statute meant when it first became law a quarter century ago, and instead consider how more recent changes to the law and changes in the energy system have given it new meaning.

With respect to Recommendation 3, CENH believes that the Department has again missed the point and in the partial Settlement Agreement agreed to a "truce" and leave the N-1 issue to be decided later. However, as noted on the stand, CENH believes that allowing Eversource to continue to require

project developers to make upgrades as necessary to meet the N-1 distribution standard will result in less installed solar PV capacity in New Hampshire, resulting in lower avoided energy costs for all ratepayers.

It is not the N-1 standard that is the issue, it is the fact that Eversource is not providing DER projects with the opportunity to reduce project costs by only upgrading the primary path, understanding that they would be tripped offline in the case of an outage. Eversource has suggested that they require primary and secondary upgrades, if needed, in case the primary path was to be catastrophically affected, creating an outage for months. Project developers recognize this is a risk, but question the frequency that this has happened, if ever, in New Hampshire. Therefore, in some instances, DER projects are being served a bill for interconnection upgrades that make projects financially non-viable. Alternatively, project sizes could be reduced to eliminate the need for those upgrades. The net result is that less installed solar PV capacity in NH.

By agreeing to let Eversource rigidly require all DER projects to meet its N-1 standard, without any sort of benefit-cost analysis, the Department is allowing Eversource to slow the development of new energy projects in the state, hurting all ratepayers.

With respect to Recommendation 4, CENH is surprised that the Department would have allowed Eversource to use such a narrow definition of NWAs. In fact, many current Department staff were part of the conversations in DE 16-576, which included consideration of NWA pilots.

III. REPLY TO THE OFFICE OF THE CONSUMER ADVOCATE

CENH appreciates the high expectations that the OCA has brought to this docket and the efforts that the OCA and their consultants have undertaken to bring integrity and innovation to the LCIRP process.

IV. REPLY TO EVERSOURCE ENERGY

CENH notes that its criticism of the Department is very similar to its concerns regarding Eversource's position throughout the Docket and in its response to CENH. Eversource staff, though possessing profound experience and expertise, largely missed the point of the LCIRP and of CENH's engagement in this docket.

With respect to Recommendation 2, in its closing, Eversource merely restated they had met the requirements of the LCIRP. However, CENH found their defense of their LCIRP to be a simple restatement of the boxes that had been checked, rather than an adequate refutation of the challenges made by the OCA and CENH in their respective pre-filed testimony, and the testimony given on the stand. In contrast, CENH went through point by point with reference to the docket record concerning how Eversource had failed to meet the requirements of the LCIRP. In contrast, Eversource Closing Brief made virtually no mention of CENH's repeated statements that the LCIRP filing should be rejected.

While the adequacy of the Eversource LCIRP was the central reason for CENH's intervention and was noted in its petition, Eversource instead elected to focus on a partial interest of CENH's, the N-1 issue. While the N-1 issue is particular to CENH it was hardly the only item of interest. Eversource's failure to register CENH's concerns over its LCIRP filing are as flagrant as its failure to adhere to the requirements of the LCIRP.

As noted above, had HB281(2023) not been passed and were the Eversource LCIRP to be approved, it would have left the company with no vetted plan for how it will manage future load growth incurred by building and transportation electrification, r how it will enable customers to choose to make strategic investments into distributed solar PV and battery storage systems that could result in lower overall energy system costs.

Rejecting the partial settlement, as well as the Eversource LCIRP filings, would send a signal

to the company that they need to read deeper than what the law meant when it first became law a quarter century ago, and instead consider how more recent changes to the law and changes in the energy system might have given it new meaning.

Hopefully, there will be a reasonable and useful replacement for the LCIRP passed into law soon. In the meantime, we can only hope that the electric utilities will all follow the example set by Liberty Utilities in its rate case, Docket No. DE 23-039 in which it seeks pre-approval for numerous forward-looking energy programs that could enable a more smooth and lower cost energy system to emerge within its territory.

With respect to Recommendation 3 and 4, CENH views Eversource's Closing Brief as an attempt to wave the interests of a trade group. In fact CENH has asserted on the stand during the second day of testimony and in its Closing Brief that it is participating in this Docket on behalf of communities, businesses, and residents across the state. CENH's interest in the interconnection issue, as noted on the stand, is not simply that Eversource's rigid application of the N-1 standard is adding to the project costs of a few CENH members. Instead our interest in this case is primarily, Eversource's gross failure to plan for future grid conditions, but also that its rigid application of the N-1 standard to interconnection projects costs all ratepayers by reducing the investment in DERs in the state.

In support of this assertion, CENH notes that the value of distributed generation to reduce electric power energy supply, distribution, and transmission costs was quantified in the Department's own study, conducted by Dunsky Energy and Climate Advisers. This study shows that solar PV systems provide avoided energy, distribution, and transmission costs.[1]

CENH also notes that the NH PUC issued Order No. 26,813 in Docket No. DE 22-073 approving a 4.9 MW solar project to be owned and operated by Until Energy System (UES).[2] In the Order, the PUC

[1] Dunsky (2022). New Hampshire Value of Distributed Energy Resources Final Report, Dunsky Energy + Climate Advisors on behalf of the NH Department of Energy, https://www.energy.nh.gov/sites/g/files/ehbemt551/files/inline-documents/sonh/nh-vder-report.pdf.

[2] PUC (2023). Order No. 26,813, Docket No. DE 22-073, Petition for Approval of Investment in and Rate Recovery of a Distributed Energy

notes that it was Unitil Energy's position that,

"*by generating PV electricity, especially during mid-day hours, the Kingston Project could provide ancillary load support for UES's distribution network in the southern Rockingham County area, and thereby reduce transmission and distribution costs assessed to UES, and, by extension, UES's distribution customers*." (Order at 4).

The PUC noted in the Order that they found that the project met the purpose of RSA 374-G in that the project was consistent with

"reducing line losses, supporting voltage regulation, or peak load shaving, as part of a strategy for DE 22-073 - 9 - minimizing transmission and distribution costs as provided in RSA 374-F:3, III." (Order at 8 and 9).

CENH further notes that ISO-New England (ISO-NE) reported at a Federal Energy Regulatory Commission on June 20, 2023, that their indicates 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. However, ISO-NE is not yet ready for the facility to close. The ISO-NE analysis credits **stronger than expected growth in solar power**, fewer retirements of existing power plants, and flat demand for electricity.[3]

The ISO-NE president and CEO noted at this same event 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.[4] As evidence of this, CENH notes that that ISO-NE's final 2023 ISO-NE 2023 transportation electrification forecast, released on April 28, 2023, projects that there will be 2.2 million electric vehicles

---

Resource Pursuant to RSA 374-G, NH Public Utilities Commission, https://www.puc.nh.gov/Regulatory/Docketbk/2022/22-073/ORDERS/22-073_2023-05-01_ORDER-26813.PDF.

[3] Mohl, B. (2023). Grid Operator Dials Back Electricity Concerns Growth In Solar Power Eases Concerns Through 2027, Commonwealth Magazine, https://commonwealthmagazine.org/energy/grid-operator-dials-back-electricity-concerns/.

[4] Ibid.

(EVs) on the road in 2031.[5] This is 4000 percent growth over the vehicles on the road in 2022. However, it is worth noting that ISO-NE's 2022 final EV forecast had projected that 1.5 million EVs would be on the road for 2031.[6] This revision upward is consistent with ISO-NE 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.

ISO-NE forecasts for EVs and building electrification mean that significant growth in electric generation, and electric power distribution and transmission will be needed as the economics and efficiency of new technologies drives the market away from fossil fuel for heating and transportation. As noted in CENH's first round comments, solar PV is the fastest source of low-cost electricity generation that can be built to meet New Hampshire's growing needs for clean, affordable power, capable of providing insulation from broader market forces. However, ISO-NE also projects that NH's solar installations will SIGNIFICANTLY lag the other five New England states. In ISO-NE final 2023 PV forecast found that by 2032, NH will have approximately 55 percent as much as installed solar capacity in Vermont, and just over a quarter of the installed solar PV capacity in Maine.[7] As electric load grows in New Hampshire without a corresponding increase in local DERs, then there could be significant economic implications.

Eversource's requirement that projects upgrade the primary and secondary path, which is out of step with other utilities and other states, contributes to that lower PV growth and should be suspended. Eversource's view that NWAs must exclusively be owned by the company, further contributes to this lower growth. Not only did they not propose any DER projects similar to the abovementioned Unitil solar array in Docket DE 22-073 in LCIRP itself, but their definition of NWAs forecloses on the company

[5] 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.

[6] 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.

[7] ISO-NE (2023). *Final 2023 Photovoltaic (PV) Forecast,* ISO-NE Load Forecast Committee, https://www.iso-ne.com/static-assets/documents/2023/04/2023_pv_forecast_final.pdf.

evolving its operations and programs in such a manner that it would encourage third party investment in key areas. Such private investment could reduce the need for expensive utility upgrades that would be rate based and paid for by customers.

As both its N-1 standard and NWA definition are so narrowly focused that they reduce innovation, third party investment at the cost of ratepayer benefits, the PUC should adopt CENH's Recommendations 3 and 4.

V. Conclusion

Throughout this Docket, CENH has advocated for Eversource to do more to enable the development of a lower cost and clean energy system that is able to safely and reliably accommodate current and emerging technologies; technologies that will benefit the New Hampshire economy, public health, and environmental quality. CENH's goals in this docket have been completely in line with RSA 378:37, which was preserved in HB281 (2023). To reiterate, the state energy policy in RSA 378:37 clearly states that energy should be provided at the lowest possible cost *while also* delivering economic, social, and environmental benefits.

CENH has been deeply disappointed throughout the proceeding by Eversource and the Department's mischaracterization or misunderstanding of the law, ignoring the clear requirements in the sections that followed RSA 378:37, which provide explicit guidelines to ensure that the state's energy utilities undergo a comprehensive process that allows them to forecast future conditions and develop a comprehensive plan that integrates solutions to maximize benefits. As a result, the Department and Eversource are asking the Commission to approve a distribution management *strategy* that may be adequate for today, but in no way describes how the company will rise to meet the challenges of a changing energy market that are already at the door. Challenges that it admitted are coming.

As noted in our previous Brief, innovation over the past decade has made previous energy

technologies not just cost-competitive but lower cost, and new technologies exist to accommodate the intermittent nature of renewable energy and flexibility of new end use technologies. Eversource and the Department are aware of all these changes but seem content to neglect to account for them in the 2020 LCIRP. Such a plan may be perfect for ensuring reliability and safety of the expected evolution of the NH energy system, but it is insufficient to guide the energy system from what is expected to what is possible. By failing to present an actual forward-thinking plan that actively manages the system to optimize the interconnection and integration of utility owned and privately owned assets that can provide local, abundant, cheap, clean energy, the company and the agency may be enabling low cost but missing the opportunity to enable the LOWEST cost.

By disapproving the Partial Settlement Agreement and the LCIRP, the Commission will send a clear message that they expect the NH utilities to not simply manage the system conditions as they emerge, but for the NH utilities to change the optimize the direction the grid is going. By issuing a Ruling on the treatment of N-1 interconnection standards and NWA investment and ownership, the PUC will pave the way for more DERs to come online reducing costs for all ratepayers.