

STATE OF NEW HAMPSHIRE
BEFORE THE NEW
HAMPSHIRE PUBLIC UTILITIES COMMISSION

Docket No. DE 20-161

Public Service Company of New Hampshire d/b/a Eversource Energy

2020 Least Cost Integrated Resource Plan

Technical Statement of Jay E. Dudley and Ronald D. Willoughby

Regarding PSNH's 2020 LCIRP and 2020 LCIRP Supplement

Department of Energy, Division of Regulatory Support

&

River Consulting Group, Inc.

January 17, 2023

On August 19, 2022, the New Hampshire Department of Energy (DOE or Department) filed testimony with Public Utilities Commission (PUC or Commission) in this proceeding finding, among other things, that Public Service Company of New Hampshire d/b/a Eversource Energy's (PSNH or "the Company") 2020 Least Cost Integrated Resource Plan ("2020 LCIRP" or "2020 Plan") was not in compliance with regard to criteria set out in RSA 378:39 involving environmental, economic, and health-related impacts.¹ Accordingly, the Department recommended that PSNH file a supplemental filing that addresses those criteria in accordance with the expectations of the Commission as expressed in Order No. 26,225 dated March 13, 2019, in Docket DG 17-152 (Order).²

On September 30, 2022, PSNH filed rebuttal testimony in which the Company agreed that the Company had not expressly discussed RSA 378:39 criteria and indicated that PSNH was preparing a supplemental filing. *See* PSNH Rebuttal Testimony of Johnson, Freeman and Walker at 14-17. On October 18, 2022, the Company filed a supplement to its 2020 LCIRP with supporting testimony of Johnson, Freeman, Walker, Cosgro and Gionfriddo and attachments. DOE has reviewed both PSNH's rebuttal testimony and the 2020 LCIRP Supplemental,

¹ *See* August 26, 2022 Direct Joint Testimony of Jay E. Dudley and Ronald D. Willoughby at Bates 12. In this Technical Statement, "PSNH" will be used for the New Hampshire entity, while "Eversource" will refer to the parent company.

² *See id.* (*quoting* Order No. 26,225 at 7, which states in relevant part, "We direct Liberty to submit a supplemental filing, including supplemental testimony, to address each of the specific elements required under RSA 378:38 and RSA 378:39 that are not already addressed in its LCIRP, with adequate sufficiency to permit the Commission's assessment of potential environmental, economic, and health-related impacts of each option proposed in the LCIRP.")

including testimony and attachments. For the reasons explained below, subject to DOE's two additional recommendation involving PSNH's non-wires alternatives (NWA) and N-1 contingency criteria, the Department recommends that the Commission accept the supplemental filing and approve the Company's 2020 LCIRP, inclusive of the 2020 LCIRP Supplement.³

Compliance with RSA 378:39

Pursuant to the Commission's Order, utilities are expected to provide in their LCIRP's an adequate assessment of each of the criteria under RSA 378:39 to allow the Commission to perform a sufficient review of potential environmental, economic, and health-related impacts of options proposed in each utility's LCIRP.⁴ Upon reviewing PSNH's supplemental filings, the DOE finds the following:

Environmental Impacts:

Parent company Eversource Energy ("Eversource Energy" or "the Parent Company") has undertaken a number of corporate-wide initiatives to accomplish certain environmental goals:

- Eversource Energy plans to be carbon neutral by 2030 by upgrading facilities to reduce electricity and fuel consumption, adding electric and hybrid vehicles to its corporate fleet, and implementing transmission and distribution system improvements (including reduced line losses) to better accommodate renewable energy resources and harden systems to withstand the impacts of climate change, and replacing the use of sulfur hexafluoride in electrical equipment, all as detailed in the Eversource Energy Climate Adaptation and Mitigation Plan.⁵
- Eversource Energy represents that it is committed to interconnecting with certain offshore wind projects currently under development off the coasts of Massachusetts and Rhode Island, as well as new solar projects, to provide more customers access to renewable energy sources.⁶
- PSNH recently developed a decisional matrix for capital project planning and evaluation that incorporates consideration of the environmental impacts of a proposed solution by assigning scores which become part of an overall project ranking process.⁷ This process is assisted and guided by the involvement of the following functions within Eversource: the Sustainability and Environmental Affairs Department (SEAD), the Licensing and Permitting Group (L&P), the Environmental Remediation Group (ERG), and the Environmental Response Team (EFRT). For substation projects in the construction

³ PSNH's 2020 LCIRP Supplement, Section II, note 4, references a recent PUC Order, which was issued in Docket No. DG 19-126, i.e., Order No. 26,664 (August 8, 2022). The Department continues to consider the meaning and scope of that order, and of related Order 26,688 (September 19, 2022) and Order No. 26,689 (September 19, 2022) (denying motions for rehearing and "clarif[y]ing" Order No. 26,664). However, in reviewing Eversource NH's 2020 LCIRP and 2020 LCIRP Supplement, the Department has continued to apply those criteria in place prior to August 8, 2022.

⁴ See footnote 2, *supra*.

⁵ 2020 LCIRP Supplement at 1 and Appendix A.

⁶ Appendix A at 7.

⁷ Appendix C.

phase, ERG and EFRT are key participants.⁸ PSNH may also perform constructability reviews in order to minimize project unknowns and associated budget variances.⁹

- PSNH's non-wires alternative (NWA) framework tool incorporates consideration of environmental impacts associated with capital projects by evaluating potential alternative solutions to traditional infrastructure projects and the associated environmental impacts. The NWA framework tool also considers emissions factors for energy procurement through the ISO generation mix and will include (as a planned enhancement) the ability to calculate avoided local emissions from other pollutants. Because most projects are not found to impact local emissions, emissions calculations are not extensively used yet are always available if needed.¹⁰ At present, the NWA framework tool is generally applied to all suitable projects where the cost exceeds \$3 million.
- PSNH is deploying new system planning tools, *GridTwin* and *LoadShare*, to facilitate location of projects and interconnection with solar developers, and to enable more efficient use of DER data for inclusion in planning studies.

DOE Recommendation on Environmental Impacts

The Department recommends that in the next two years, PSNH investigate lowering its NWA threshold to \$1 million to capture more potential NWA candidates and the associated potential benefits.

Economic Impacts

PSNH emphasizes that its efforts to provide safe and reliable service is a key element in supporting a competitive economy in New Hampshire:

- PSNH represents that given the increasing reliance on electric service to support remote work-from-home employment, adoption of electric vehicles, and growth in electric heating systems, providing and maintaining reliable electric service at the least cost has a direct correlation with sustainable economic growth and job creation in New Hampshire.¹¹
- The Company has incorporated as part of its revised project review process greater scrutiny of costs and benefits in the project selection process.¹²
- PSNH states that it is committed to facilitating the transition to grid modernization which includes advanced forecasting and modeling, increased interconnection with distributed energy resources (DER) including energy storage, and electrification of transportation and heating, all of which impact job creation and maintaining the economic competitiveness of New Hampshire.

⁸ Supplemental Testimony of Johnson, Freeman, Walker, Cosgro, and Gionfriddo dated October 18, 2022, at 13-14.

⁹ See Appendix C for a completed example of a Substation Constructability Review Form.

¹⁰ *Id.* at 11.

¹¹ *Id.* at 15; 2020 LCIRP Supplement at 3.

¹² *Id.*

Health Impacts

PSNH states that there is a correlation between the Company's ongoing efforts to support the growth of clean energy resources, in conjunction with providing reliable electric service, and the improved health of New Hampshire customers:

- PSNH states that after the divestiture of its generating assets the impact of the Company's operations on health through direct emissions has greatly decreased. The Company provides much of its electric supply to customers through its default service which is procured through a competitive bidding process. Although the ISO-NE wholesale market for electric supply continues to be dominated by generation from natural gas, Eversource supports the integration of DER's in its service territory and is committed to incorporating more renewable energy resources as they become available reducing GHG emissions which impact human health.¹³
- PSNH asserts that reliable electric service is critical to ensuring healthcare and emergency facilities are able to provide service, and the system is designed such that heating and cooling systems can successfully operate during peak periods.¹⁴

Interconnection Criteria for DERs

At the technical sessions held in this docket on November 15, 2022 and December 19, 2022, participants discussed the practice adopted by PSNH of applying the N-1 contingency criteria to the interconnection of large distributed energy resources (≥ 15 MW) to the Company's distribution system. In the Department's view this application of the N-1 standard by PSNH raises an important policy issue that is worthy of further discussion and is already the subject of investigation. Pursuant to SB 262 (2022) (codified as Chapter Law 328:4), the DOE issued an Order of Notice on December 5, 2022, opening an investigation in DOE Docket IP 2022-001 to consider modifications to the administrative rules in Puc 903.01(e) to ensure the establishment of cost-effective and timely interconnection procedures. In the Department's view, Department of Energy Docket No. IP 2022-001 is the appropriate venue to examine and address all viewpoints on this issue. Therefore, while the Department acknowledges that Eversource has been using N-1 contingency criteria for DER interconnection, it would be premature for the Department to recommend approval or disapproval of that specific application of the criteria at this time. Accordingly, the Department recommends that the Commission approve PSNH's 2020 LCIRP subject to the investigation the Department is currently conducting.¹⁵

¹³ *Id.* at 16; 2020 LCIRP Supplement at 4.

¹⁴ *Id.*

¹⁵ See [Order of Notice Opening Investigative Proceeding Relative to Customer-Generator Interconnection | NH Department of Energy](#) (inviting comment on, *inter alia*, how to ensure timely consistent and reasonably -priced interconnection studies; how to ensure just and reasonable pricing of grid modernization upgrades mandated by the distribution utility for interconnections of distributed energy resources, including transparency and consistency in pricing guidelines and appropriate cost-sharing among parties benefitting from such upgrades, and how to ensure distribution system upgrades paid for by customer-generators are not claimed as part of the utility rate-base.)

Department's Summary Recommendations

Based on the Company's initiatives outlined above, and the additional information reviewed by the Department as provided by PSNH in the supplemental filing, the Department concludes that PSNH has met its burden of adequately addressing RSA 378:39 criteria, although the Department respectfully requests that the Commission adopt the Department's recommendation that PSNH investigate an NWA threshold of \$1 million and that the Commission note that the Department considers DOE approval of the application of the N-1 criteria for DER interconnections to be contingent upon the outcome of DOE Docket No. IP 2022-001 discussed above.

In addition, as the Department previously stated in its direct testimony filed on August 26, 2022, in the view of the Department the Company's 2020 LCIRP is also compliant with the requirements of RSA 378:37 and RSA 378:38. The Department notes that PSNH no longer owns large-scale, CO2 emitting, electric generating facilities, thus removing a direct causal link between the Company and the emission of pollutants and the impact that has on the local environment, economy, and the health of New Hampshire citizens. While this does not relieve Eversource from its obligations as a public utility under RSA 378:38 and 39 and other provisions of state and federal law to address and mitigate impacts that may arise from its operations in providing electrical service, it is significant that PSNH is no longer vertically integrated. DOE agrees with PSNH's position that Company initiatives can only affect those situations over which it has measurable control. In the opinion of the Department, PSNH has shown that it is reasonably addressing and mitigating those impacts as described in its supplemental filing and 2020 LCIRP.

Therefore, it is the Department's recommendation that, with DOE recommendations summarized above, the Commission should approve the 2020 LCIRP, inclusive of the 2020 LCIRP Supplement, as consistent with RSA 378:38 and :39 requirements.