

**STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

DE 21-004

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. d/b/a LIBERTY

2021 Least Cost Integrated Resource Plan

Procedural Order Re: Record Requests

The Commission requests that Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty (Liberty or the Company) respond to the following record requests, directed to the June 1, 2022 “Report on Wires and Non-Wire Solutions to Address Reliability in the Bellows Falls Area – 2022” (Report) on or before the close of business on Monday, July 25, 2022:

Record Request (RR) 1. On Bates page 003 of the Report, Liberty states that: “Because the Company’s analysis is based on historical data, the effect of planned improvements in the Bellows Falls area are not captured.” If Liberty is considering Non-Wires Alternatives (NWAs) as part of its long-term goals, why did the Company not document the long-term effects of each option under consideration?

RR 2. According to the Report on Bates page 003, there is an “Inability to perform the necessary system reconfiguration to isolate system faults and reduce the number of customers impacted during an event.” Please explain this in more detail: how the Company has coped until now; and how each option under consideration will alleviate this problem.

RR 3. The Report (Bates page 003) states that six solutions were identified to address the reliability issue. Please explain who identified the solutions and using what criteria. Has the Company adopted a formal business process to review all NWA possibilities? If the Company used the DAS-16 Guidelines found on Bates page 313 of the Appendices to the LCIRP, please provide detail concerning how the Distribution Project Evaluation was applied in the case of each option.

RR 4. Please furnish the referenced report and cost estimates for battery storage for options 5 and 6 (Bates page 003) drawn up by the Company's consultant.

RR 5. On Bates page 004 the Report, it states that “It is important to note that all of the traditional wires solutions scored higher than any non-wires solution. This is due to the current estimated reliability impact performance that the batteries can potentially provide as opposed to a traditional wires solution.” (a) Does that mean that the reliability of batteries is severely impaired when compared to traditional wires? (b) If so, and given that

this is an investigation into solutions for reliability, why is Liberty investigating NWAs? (c) Why isn't the Company exploring a combination of NWAs such as solar and battery storage, etc. which might increase reliability? And (d) Why is the Company not considering multiple technologies via a portfolio solution in a holistic and integrated manner?

RR 6. On Bates page 004 of the Report, it is asserted that "To provide the most reliable service, creating 3-phase circuit ties is the appropriate course of action. This installation will also provide a greater footprint of 3-phase primary for future distributed generation installations. By the Company's estimation, this will improve circuit outage duration ("Ckaidi") for reportable customer interruptions in this region by approximately 6%." Please explain how the Company arrived at the 6% number and what does it indicate relative to current reportable customer interruptions.

RR 7. On Bates page 005, the Report states that the Company intends to implement distribution automation once the 3-phase circuit tie has been constructed to modernize the circuits and greatly improve the customer experience. Does that mean that, irrespective of the option under consideration, the circuit tie will go ahead to facilitate distribution automation? If so, then why is this under consideration as an NWA? Isn't this part of hardening/better control of the existing infrastructure?

RR 8. On Bates page 005, the Report states that "Once the NWS [non-wires solutions] candidates were initially identified by Liberty..." Please explain how the candidates were selected, who took part in the decision and what parameters were established in order to gauge suitability.

RR 9. Bates page 005 of the Report states that "[T]he analysis of NWS should consider utility system benefits including, but not limited to, avoided distribution capacity costs, avoided energy costs, and avoided transmission costs. The analysis was to also include an evaluation of the demand reduction potential associated with energy efficiency and load curtailment, as well as other NWSs." Why did this analysis not form part of the initial screening of candidates?

RR 10. According to the Report on Bates page 005, "The Company filed an NWS on January 14, 2021, which included the building of a microgrid to manage the potential loss of supply in the Bellows Falls area with the assumption that the full analysis would be filed on July 14, 2021, or six months after the initial filing." Why did the Company consider a microgrid? Which of the NWA options anticipated a microgrid? Were NWA proposals to specify the use of a microgrid and if so, why?

RR 11. According to the Report, Bates page 005, "The NWS proposed on January 14, 2021, would not have addressed reliability issues in the area, it would only have addressed the loss of a supply line from Liberty's transmission provider, National Grid." Given that this project was primarily to address system reliability, how was it that a reliability driven project was simply addressing a loss of supply from a partner utility?

RR 12. Please furnish a copy of the Bellows Falls situation report dated May 2, 2022 as referenced on page 005 of the Report.

RR 13. On Bates page 006 of the Report, it states that: “The Company has identified traditional wires solutions to mitigate the reliability issues in its plans for 2022, along with several NWS for future years.” Please clarify the meaning of this statement. Does this mean that the utility has adopted a piecemeal approach to the Bellows Falls issues? Has the Company considered making use of the US DOE recommendations concerning traceability in order to clearly identify the link between the immediate objectives, the technical requirements, and finally the optimal solutions that perhaps might serve to meet multiple objectives longer term?

RR 14. According to the statement on Bates page 006 of the Report: “Traditional wires solutions are focused on system reliability given the data presented in the Company’s May 2, 2022, report and, since they are wires solutions, there are no avoided costs associated with these projects.” Has Liberty performed cost-benefit studies for these three options, and has the Company identified the opportunity costs in each case as part of its evaluation?

RR 15. Would it be true to state that the Company was examining the options from a narrow single objective perspective as per the following on Bates page 006: “the Company did not analyze these cost reductions because the construction costs for solutions 5 and 6 are significantly higher than solutions 1 through 4.” Did the Company not consider solutions that were perhaps more expensive initially but enabled solution of multiple needs going forward?

RR 16. Referring to the matrix on Table 3, Bates page 007, please explain the derivation of the risk values listed on the horizontal axis, and please explain the impact numbers of the vertical axis.

RR 17. The Report on Bates page 007 states the following: “It does not address the need for a supplemental supply source to mitigate long-duration outages.” Does that mean that in fact the Company is seeking a solution for long duration outages and reliability? Would this suggest the need to consider the following: a standard solution approach or a portfolio solution approach or even a partnership solution approach? If so, please supply a copy of the system needs report and the NWA screening criteria.

RR 18. At the bottom of Bates page 007 of the Report, there is an analysis of the benefits of the circuit tie (line extension) relative to battery storage. Comparing Acworth Rd Tie line vs BTM Storage, it is clear that the costs are comparable at \$4.5 million approx. The Report makes clear that for the battery option the utility avoids the circuit tie costs, lower transmission costs are possible by dispatching battery power during peak shaving and that by charging during low energy costs and dispatching during high demands further savings may be possible. However, absent clear parameters required for the NWA options, it is difficult to determine whether any of the battery options would have the means to address a long outage. Please define the technical parameters required of the batteries.

RR 19. Referring to Bates page 009 of the Report, the risk score associated with the first Solution #1 proposed project is 24. Please explain in detail how this is derived.

RR 20. On Bates page 009 of the Report is Table 4. Please clarify the difference between No exclusion and Puc 307.07 Exclusion and derive the data provided.


RR 21. Referring to Bates Page 010, Table 5, please indicate how the table is derived and how the risk score of 30 is determined.

RR 22. On Bates page 011, Solution #3, the Report states that “This tie not only is in the optimum location for both circuits but puts 3-phase primary throughout a much larger area which would give more opportunities for future distributed generation interconnection.” Why is the location optimal and why are more opportunities made available for distributed generation interconnection? Is this a desirable feature? If so, why not be considered as a fundamental requirement for provisioning?

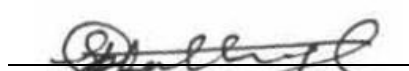
RR 23. By reference to the tables 9-12 on Bates page 014 and onward, please explain in each case the origin of the evaluation criteria used and the determination of the weight factor.

RR 24. On Bates page 016 of the Report, one finds the following: “Many would also create economic benefits by reducing the Company’s cost to operate the electric system on customers’ behalf. Those benefits have not been evaluated for this report and cannot be known with certainty at this time.” Is it not true that a full evaluation of the options would not only consider cost and increased reliability benefits but would also evaluate the additional benefits in terms of lower operating costs of the system, easier automation and controls etc.? Why did the analysis not look more broadly at each option from the perspective of the universe of possible outcomes and the additivity each solution would bring in the short and long run?

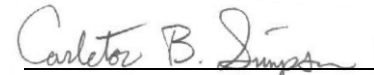
So ordered, this fifteenth day of July, 2022.



Daniel C. Goldner
Chairman



Pradip K. Chattopadhyay
Commissioner



Carleton B. Simpson
Commissioner

Service List - Docket Related

Docket# : 21-004

Printed: 7/15/2022

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