

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty

DE 17-189

Petition to Approve Battery Storage Pilot Program

State of New Hampshire Public Utilities Commission – Record Requests

Date Request Received: 12/22/21
Request No. RR 1-1

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

Liberty’s assessment as to the success of the Program and if it should be continued.

RESPONSE:

Liberty assesses that the Program has been demonstrably successful and should be continued. The Program has lived up to the Commission’s findings in Order No. 26,209 (Jan. 17, 2019) that pursuing the Program is in the public interest under RSA 374-G. The Program has achieved its intended purpose of creating savings for Liberty’s customers through peak load reductions, and the Program will result in further customers savings if continued. The Program has successfully dispatched a total of 51.4 MW at potential peak events from 73 dispatches in 2021, or an average of 705 kW per event, accurately predicting the monthly peak with 92% accuracy to date (11 of the 12 calendar months in 2021). The table below provides the breakdown of savings the 91 Liberty customers who are participating in the Program have received by using their batteries in combination with the Time of Use Rates.

<u>Period</u>	<u>(Savings)/Charges</u>
Critical Peak Total	(\$9,309.31)
Mid Peak Total	(\$2,791.26)
<u>Off Peak Total</u>	<u>\$10,201.36</u>
Net Total	(\$1,899.22)

The Program has also effectively supported the Energy Policy of the state, as defined in RSA 378:37, which calls for meeting energy needs at the “lowest reasonable cost while providing for the reliability and diversity of energy sources,” “maximi[zing] the use of cost effective...demand side resources,” and “protect[ing] the safety and health of the citizens, [and] the physical environment of the state...” The Program supports the Energy Policy by reducing energy costs, improving the reliability of the grid by lowering peak demand, reducing customer exposure to regional system risks, improving the diversity of energy sources by incorporating energy storage in the resource mix, adding a new demand-side resource to New Hampshire’s energy system, and reducing any safety, health, or environmental effects related to the generation of electricity which would have been necessary but for demand reductions associated with the Program.

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Date Request Received: 12/22/21
Request No. RR 1-2

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

A summary table showing only the actual cost and achieved lifetime benefit, as of the review date, for each customer in a live spreadsheet.

RESPONSE:

This information is not available as of the date of this response. As stated in the Company's February 9, 2022, request to continue the March 2, 2022, review hearing (which request the Commission granted), the information sought in this request has not been prepared and is simply not available. The information will be prepared by the Company's consultant and provided to the Commission by the August 31, 2022, deadline. If the information becomes available prior to that date, the Company will supplement this response.

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Date Request Received: 12/22/21
Request No. RR 1-3

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

A summary table showing only the actual cost and achieved lifetime benefit, and then adding projected costs and benefits by year, for each customer. Calculate the payback period for each customer. Calculated benefit, cost, and payback period totals to include all customers. All in a live spreadsheet.

RESPONSE:

See the Company's response to RR 1-2.

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Petition to Approve Battery Storage Pilot Program

State of New Hampshire Public Utilities Commission – Record Requests

Date Request Received: 12/22/21
Request No. RR 1-4

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

An update to Exhibit 80A in live spreadsheets, including a total for all customers. Include a summary description of the assumptions and calculations.

RESPONSE:

Please see Attachment RR 1-4.xlsx for an update on bill battery benefits for all 91 customers who had batteries installed in 2021.

The data used to calculate the battery benefits include the rates in effect during the period multiplied by the batteries' dispatched or charged energy.

The kWh is the net of kWh for the period dispatched to the home and grid during peak events plus the kWh used to charge the batteries. Negative kWh is the net of kWh for the period used to provide power to the home and/or dispatched to the grid during peak events. All of the input data was provided by Tesla.

Based on the calculations explained here, the total net savings on usage due to the batteries powering the home was 28,873 kWh during critical peak hours and 16,379 kWh during mid-peak hours – including peak event days – offset by charging the batteries during off-peak hours. The total off-peak usage was 82,974 kWh. The critical peak and mid-peak periods will not necessarily equal the off-peak charging hours due to the periods being a net of dispatching and charging of the batteries.

The value of the savings is provided in the table below:

<u>Period</u>	<u>(Savings)/Charges</u>
Critical Peak Total	(\$9,309)
Mid Peak Total	(\$2,791)
<u>Off Peak Total</u>	<u>\$10,201</u>
Net Total	(\$1,899)

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Date Request Received: 12/22/21
Request No. RR 1-5

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

Number of customers in the Program at the time of the review, and number of planned additions each quarter of 2022.

RESPONSE:

Please see Confidential Attachment RR 1-5.xlsx for the list of 100 customer addresses that are participating in the program as of the date of this filing. There are six customers on the list who have not received batteries at this time and are working with Tesla on install dates. These additions are expected to be completed in Q2 2022.

Confidential Attachment RR 1-5.xlsx contains customer addresses which is “individual customer data ... that can identify, singly or in combination, that specific customer,” RSA 363:37, I, and is thus protected from disclosure by RSA 363:38 and RSA 91-A:5, IV. Therefore, pursuant to Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

REDACTED

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Date Request Received: 12/22/21
Request No. RR 1-6

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

Estimated cost for each additional battery storage implementation in 2022, estimated benefits by year, and payback period for each. Provide 2022 totals. All in live spreadsheets.

RESPONSE:

The Company purchased increments of twenty-five battery installs at a time from Tesla, beginning in 2020. The total invoice for each set of twenty-five installs was \$[REDACTED], which included the cost of the equipment and installation. As of December 31, 2021, there were six installs remaining to be completed (ninety-four completed). In mid-December 2021, Tesla invoiced the Company for the final twenty-five installs bringing the total customers with installations to one hundred, or two hundred batteries. As such, there are no additional costs to be incurred in 2022 associated with the installs. See Confidential Attachment RR 1-6.xlsx for the six remaining batteries to be installed in 2022. The estimated benefits by year and payback information will be provided in the report due August 31, 2022.

The shaded/redacted information above and Confidential Attachment RR 1-6.xlsx contains confidential Tesla pricing information that is “confidential, commercial, or financial information” protected from disclosure by RSA 91-A:5, IV, and for which the Commission granted protective treatment in Order No. 26,209 (Jan. 17, 2019). Confidential Attachment RR 1-6.xlsx also contains customer addresses, which is “individual customer data ... that can identify, singly or in combination, that specific customer,” RSA 363:37, I, and is thus protected from disclosure by RSA 363:38 and RSA 91-A:5, IV. Therefore, pursuant to Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the next evidentiary hearing in this docket.

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Date Request Received: 12/22/21
Request No. RR 1-7

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

Include a summary of the savings from Liberty’s point of view and the customer’s point of view.

RESPONSE:

From Liberty’s point of view, the discharge of the batteries during high usage periods reduces the load on our equipment, which potentially lengthens the useful life of that equipment simply because the demand on that equipment is less than it would have been without the batteries. This provides a long-term savings to customers because the Company is not replacing equipment as soon as it would have without the batteries on the system.

From the customer’s point of view, the discharge of the batteries lowers the Company’s system peaks which, in turn, may result in savings at ISO New England for lower Regional Network System (RNS) and National Grid’s Local Network System (LNS), which reductions are a direct savings to customers each year. Customers may also achieve savings through their wise use of their batteries in conjunction with the Time of Use Rates. The analysis of the data to be presented in August will determine whether customers achieved savings and, if so, their extent.

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Date Request Received: 12/22/21
Request No. RR 1-8

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

Include any safety issues discovered.

RESPONSE:

The Company has not discovered any safety issues with installations or usage of the batteries.

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State of New Hampshire Public Utilities Commission – Record Requests

Date Request Received: 2/25/22
Request No. RR 1-9

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

Are the Tesla batteries used in Phase One of the Pilot Program still available to Liberty from Tesla for future installations? If so, are the same batteries also available for retail sales to customers outside of the Pilot Program?

RESPONSE:

The batteries used in Phase One of the pilot are the same for all customers, the Powerwall. Unless Tesla changes the battery offerings between now and the time Phase Two starts, the Company will continue to use the Powerwall batteries for installation.

The same batteries are available from Tesla for retail sales outside of the pilot under the Powerwall name on the Tesla website, <https://www.tesla.com/powerwall>.

Below are definitions of each item in the above list. Frequency and Voltage are not defined by Tesla.

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

Autobidder is the software used by Tesla to determine when the peak hour at ISO New England will occur to inform when a dispatch signal should be sent to the batteries to dispatch during those hours. Liberty does not have access to this software.

Liberty is not aware of any analyses of the pilot program that Tesla may perform.

The information shaded/redacted above is covered by a confidentiality agreement between Liberty and Tesla and constitutes details of the Tesla software, which information is the type of proprietary and competitively sensitive information of Tesla, a third party, that the Commission previously found to warrant protective treatment in this docket in Order No. 26,209 (Jan. 17, 2019). The Company incorporates the reasoning of the Company’s motion for confidential treatment granted in Order No. 26,209. Therefore, pursuant to Puc 203.08(d), the Company has

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a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

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State of New Hampshire Public Utilities Commission – Record Requests

Date Request Received: 2/25/22
Request No. RR 1-11

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

Please provide a record showing the number of customers who withdrew from and/or were added to the Pilot Program during Phase One. For each customer that withdrew from the program, provide a record showing how they complied with any requirements to make up payment commitments and otherwise accounting for the costs associated with their early withdrawal from the Pilot Program as per the company's tariff, Rate D-11 Battery Storage Pilot.

RESPONSE:

Please see Confidential Attachment RR 1-11.xlsx for the itemized list of the twenty-seven customers who withdrew from the Pilot Program during Phase One.

Once customers agreed to participate in the program, Liberty installed a time-of-use (TOU) meter, prior to battery installation. Of the twenty-seven customers who withdrew from the program, seventeen did so after their time-of-use (TOU) meter was installed. None of the customers who withdrew from the program had batteries installed at the time of withdrawal.

Per the Company's tariff, customers are required to sign a Customer Agreement prior to installation of the batteries. If batteries were installed and then the customer withdrew from the program, they would be bound by the contract, and removal fees contained in that contract would be incurred at that time. For the twenty-seven customers who withdrew from the program, there were no signed Customer Agreements received, nor batteries installed.

The column labeled "Meter Installed?" indicates whether or not the customers who withdrew had their TOU meter installed prior to withdrawal. There were no requirements at the time of the customer's withdrawal to make up payment commitments because payment is not collected until the batteries are installed. The only additional cost incurred by the Company was the replacement of the TOU meter with the Company's common AMR meter once they withdrew. The cost to install the common AMR meter is approximately \$131 per meter, which includes the meter and installation.

Confidential Attachment RR 1-11.xlsx contains customer addresses, which is “individual customer data ... that can identify, singly or in combination, that specific customer,” RSA 363:37, I, and is thus protected from disclosure by RSA 363:38 and RSA 91-A:5, IV. Therefore, pursuant to Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the next evidentiary hearing in this docket.

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Petition to Approve Battery Storage Pilot Program

State of New Hampshire Public Utilities Commission – Record Requests

Date Request Received: 2/25/22
Request No. RR 1-12

Date of Response: 4/4/22
Respondent: Heather M. Tebbetts

REQUEST:

For all 11 questions, provide all data in live Excel files with formulae intact.

RESPONSE:

When applicable, the Company has provided all data in live Excel files with formulae intact.