



July 14, 2023

Jared Chicoine, Commissioner
New Hampshire Department of Energy
21 South Fruit Street, Suite 10
Concord, NH 03301

Re: Investigative Docket No. INV 2023-002, Investigative Proceeding Relative to Compensation of Energy Storage Projects for Avoided Transmission and Distribution Costs

ReVision Energy's Response to Order of Notice

Dear Commissioner Chicoine,

Thank you for the opportunity to submit final comments in Investigative Docket No. INV 2023-002, Investigative Proceeding Relative to Compensation of Energy Storage Projects for Avoided Transmission and Distribution Costs. ReVision Energy appreciates the Department of Energy's engagement in an investigative process, and we look forward to understanding the scope of any subsequent actions.

ReVision Energy submits these comments as an employee owned, certified B Corporation clean energy construction company with over 400 employees across our five branches in New England, with 100 staff in New Hampshire between our Brentwood and Enfield locations. In 2022 alone, we installed 10,000 kilowatts of residential solar and nearly 24 megawatts of commercial solar across the region. Understanding the increase in value due to impacts such as demand management, load leveling, and intermittency balance when storage is added to renewable resources, ReVision comments on this investigation considering the experience we have in residential energy storage installations and considering our interest in future growth of the market.

Given the allowed timeline of this investigation, we urge the Department to bring forth expertise to learn more about best practices in the growing national market in energy storage, either via inviting in consultants, experts from relevant jurisdictions, or those who have run effective pilots and/or have existing programs within the state.

Understanding the progress the Public Utilities Commission's IR 20-166 made upon the questions outlined in RSA 374-H:3 and the stakeholder input aggregated in materials dated May 21, 2021, ReVision offers the following comments in support and/or in addition:

1. Establishing Price Signals to Avoid Transmission & Distribution Costs

There are many peer-reviewed scientific and economic analyses evaluating different methodologies for the price signals necessary for effective energy storage deployment, as well as case studies from other jurisdictions that have set such price signals. Research and case studies include in-depth evaluation of multiple options for setting price signals including time of use optimization, demand charge reduction, and temporal locational marginal pricing. Any price signals adopted must be clear and consistent. Regulators should remove barriers that prevent any behind-the-meter storage from providing stacked services back onto the grid and require that distributed energy resources be considered as alternative, lower cost solutions to wires investments or

peak generation investments.¹ Investment should be encouraged by creating a rate structure that enables users to charge batteries during the day and discharge use at night to encourage self-consumption, and/or during peak times to reduce capacity and ultimately result in load shifting away from rate peaks.

Similar how incentives for non-wires alternatives have been designed, price signals should correspond to an understanding of where the biggest benefits reside on the grid, i.e. where the grid is most constrained.

2. Providing Compensation for Participation in Wholesale Electricity Markets Resulting in Net Customer Benefits

There are many different mechanisms in providing compensation for demand response, such as setting a fixed price per kilowatt hour, implementing time of use rates, or implementing transactive energy rates.

The need to size grid infrastructure in a manner to accommodate the highest peak ultimately results in system inefficiencies and an underutilization of assets, and this requirement can come at a high cost to ratepayers. Enabling storage can enhance efficiency, resiliency, and affordability of our electric system. Energy storage is the prevailing technology in generation of energy during off-peak periods and in utilization during peak periods. In New England, peak demand is growing, and ISO-New England's 2016 State of the Grid report² noted that peak demand continues to grow in the region at a rate of 1.5% per year, and the construction and maintenance of natural gas 'peaker' plants utilized regionally come at the expense of ratepayers even though they are only needed for a few hours per year. Storage can not only create a 'peak shift,' but its smaller footprint and shorter construction timeline can provide direct ratepayer savings.

In Massachusetts' State of Charge report³, modeling efforts of future investments in energy storage showed the ability to maximize ratepayer benefits to the order of \$2.3 billion. These benefits come as cost savings to ratepayers due to energy storage's ability to reduce the price paid for electricity, lower peak demand, defer transmission and distribution investments, reduce greenhouse gas emissions and compliance costs, reduce the cost to integrate renewable generation, defer capital investments in new capacity, and increase in the grid's overall flexibility, reliability, and resiliency. This number is based on determining an optimal amount of storage that could be added over a five-year period based on locational specifics. Such planning could be immensely helpful in New Hampshire to identify a target storage goal and optimal locations, however, the key takeaway here is that compensating energy storage for avoided transmission and distribution costs will result in ratepayer savings.

It is important to note that storage projects have the potential to earn revenue in the wholesale market for multiple attributes, including energy, capacity, and ancillary services, which may provide additional system benefits. For ratepayers to receive any and all benefits, the market must allow for the transfer of benefits from the project developer to ratepayers, and fortunately there are many other jurisdictions that have long recognized and addressed this potential limitation, proposing policy schemes to

¹ RMI: Economics of Battery Storage: <https://rmi.org/wp-content/uploads/2017/03/RMI-TheEconomicsOfBetterEnergyStorage>

² ISO New England: State of the Grid Report: https://www.iso-ne.com/static-assets/documents/2016/01/20160126_presentation_2016stateofthegrid.pdf

³ MA: State of Charge Report: <https://www.mass.gov/doc/state-of-charge-report/download>

ensure benefit transferability. Mechanisms are needed to support market development given the gap between current costs of energy storage and revenue captured by the developer. Such policy recommendations include grant and rebate programs, including storage in portfolio standards, establishing and clarifying regulatory treatment of utility storage, enabling storage in statutory energy procurements, and ensuring ease of interconnection. Together, these recommendations can yield significant new energy storage technology into New Hampshire's grid, providing hundreds of millions in ratepayer savings and additional environmental benefits.

3. Encouraging Utility and Non-Utility Storage Investments

Markets are most efficient, effective, and cost-competitive when multiple actors are empowered to participate. For an effective energy storage market in New Hampshire, non-utility actors must be enabled to compete alongside utilities, for the same reasons outlined in the Purpose Section of RSA 374-F:1 including the ultimate opportunity for cost savings to ratepayers. Utilities must enable transparency into the grid to identify where investments in storage can and should be located. Without this critical mapping information, it would be extremely challenging for a non-utility entity to understand the most effective locations for grid interconnection and load reduction. Therefore, we believe any actors in such a program must commit to utilizing an open-source information center and any software/API must be universal and/or have the technological capability for integration. Additionally, the Department should review and ensure that statutes do not favor one type of ownership over the other, ensuring equal access to the market amongst utility and non-utility actors.

In this regard, ReVision recommends the Department revisit SB165, which was recently re-referred to the Senate Committee on Energy and Natural Resources in March 2023, as there may be opportunities and/or ideas for a statewide, multi-use, online energy platform contained in this proposed legislation. Such legislation could be an example of necessary statutory changes to enable an open-source data platform that could drive further energy storage adoption in New Hampshire.

4. Costs, Benefits, Implementation, and Requirements of a Bring Your Own Device Program

We urge the Department to review Bring Your Own Device (BYOD) programs in neighboring states, particularly in Massachusetts (Connected Solutions via Eversource) and Vermont (Bring Your Own Device via Green Mountain Power), to understand lessons learned and best practices to be replicated. Additional jurisdictions worth evaluating include Hawaii given the value in understanding a BYOD program in a state with significant storage need due to an isolated grid and thus high solar penetration.

A BYOD program should include all distributed energy resources so long as the resource results in available energy on the affiliated device. Any such program should be designed considering existing technology but with the sophistication to evolve understanding evolution in technology and that long-duration storage will eventually come online.

5. Other Relevant Topics



REVISION ENERGY

Throughout the investigation, the Department should evaluate whether there are opportunities to immediately deploy incentives for energy storage adoption. For example, in 22-004, Order 26,577 approved up to \$750,000 for a battery rebate program for Eversource residential customers and up to \$1 million for an energy storage rebate program for Eversource Commercial and Industrial customers from the Clean Energy Fund. If such funds have not yet been deployed, the Commission should expedite their use given such incentives can play a key role in increasing adoption and penetration at the current early stage in the market.

Additionally, The Inflation Reduction Act's changes to the Investment Tax Credit include direct pay for storage, another incentive Granite Staters can currently utilize. When designing any energy storage programs and/or incentives in state, the Department should consider existing revenue streams and ensure that new provisions do not hinder eligibility for existing funds, thus prohibiting or limiting storage investments.

Finally, as noted in IR 20-166, it is critical that simple, streamlined interconnection policies and procedures for energy storage are in effect to ensure successful adoption of battery storage into the market. Interconnection standards must both be open and transparent.

ReVision Energy thanks the Department for the opportunity to offer these comments and participate in this investigative proceeding, and we are available to answer any questions.

Sincerely,

/s/ Lindsay Bourgoine

Lindsay Bourgoine
Director, Policy & Government Affairs
ReVision Energy
7 Commercial Drive, Brentwood, NH 03833