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Comments on Docket 5000 Draft BESS Report

(Main Point/Action in Bold) below with additional insight unbolded:

- **Requesting increased state-level interconnection queue transparency can improve energy storage development reporting and responsible development potential in Rhode Island.** This can be done by amending the existing generator interconnection queue to represent energy storage and publishing an electric load queue to display future load expansions, which can support strategic energy storage deployment.
 - **Generator Interconnection Queue Improvements:** We respectfully suggest that the RI PUC consider requesting a refinement to the monthly Rhode Island interconnection queue reports to include Battery Storage as a “Fuel Type”. The current monthly queue reports ([accessible on RIE’s interconnection portal](#)) only identify “Battery Add-On” applications, which attribute to behind-the-meter energy storage. At this time, any other type of energy storage application, including front-of-the-meter energy storage, would be relegated to the “Other” category. We also suggest that the reporting electrical distribution companies within Rhode Island make available the archived history of submitted monthly reports. Both items referenced above are standard processes in neighboring New England states. These two actions will help to appropriately reflect the distribution-level interconnection queue and the increased transparency will be beneficial for developers, utility regulators and ratepayers by defining preferred and cost-effective locations to develop projects, gauging energy storage interest in RI and evaluating storage tariffs and procurements.
 - **Creation of a Load Queue:** The PUC can recommend in the Draft Report that the state EDCs and municipal electric co-ops create and maintain a public queue for electric load additions just like generator applications, which can best direct necessary energy storage and demand response infrastructure. A majority of the information needed for a report is already included in the applicants’ submissions. This could be organized in a near-identical format to the generator queue report and can identify the uses like new facilities, demand response, EV charging station (Level 1-3, etc), new residential, commercial or industrial load. The report could also document details like kW, duration, scheduled seasonal or daily use. These facilities connect to the same feeders as generators

and an updated and transparent report documenting the progression of this large electrification movement will help to channel resources to adaptively address the Scenario 3 outlooks referenced in Page 15 of the Draft Report.

- **We understand the value of the Page 12 reference to US DOE land-based wind report states ISO-NE’s 2021 transmission curtailment as less than 2%, but want to remind that this curtailment value and occurrence/duration may vary because the report only reflects land-based wind.** The contribution of wind (on-shore and off-shore) to the ISO-NE supply pool has been between 3-4% since 2021 (per ISO-NE’s Net Energy and Peak Load), while renewables (wind, solar, hydro) represent 13-19% of the supply during the same periods, so the impact of transmission curtailment, congestion and generator profiles by all renewables may increase the curtailment frequency and duration, which could be benefited by energy storage.
- **We support the development of energy storage into the interconnection tariff in the forms of standalone front and behind-the-meter and pairing with generating facilities and suggest that the Draft Report includes engagement from existing groups/committees for participation or tariff initiation.** Some of the aspects covered in Page 42 Section 5.2 may have been discussed in the *RI Interconnection Technical Standards Committee* and communication with that group is suggested prior to initiating a stakeholder process to develop an energy storage interconnection tariff. This group was created by the RI Narragansett Electric Company’s Standards for Connecting Distributed Generation and is composed of representatives from the utility, DG providers and state and ISO-level staff with charge to “facilitate the timely flow of technical information and introduce potential changes to the technical requirements of interconnection as national standards change”. **We recommend establishing interconnection tariff language for paired and standalone storage by 6/30/2024 through the RI Interconnection Technical Standards Committee with collaboration by the PUC and stakeholders.**
 - It’s understood that the current interconnection tariff considers and studies the energy storage facility as a typical generator, accounting worst-case scenario charge and discharge assumptions into the system studies. This puts energy storage applications at a disadvantage, since they may be requested to build expensive infrastructure upgrades that may never be needed. Refining the tariff to allow energy storage applicants the option to be studied at selected charge/discharge times/duration could improve the study review process and reduce overall expenses by reflecting realistic upgrade costs based on their anticipated needs. Discussion in the Docket 5000 stakeholder meetings identified drawbacks such as requiring application resubmissions if the application’s desired charge/discharge times change after a study begins. The opportunity to include these aspects are covered in the 2022 NREL Use of Operating Agreements and Energy Storage to Reduce Photovoltaic Interconnection Costs (Conceptual framework, Tech and Econ Analysis), in which the RI OER and National Grid participated.
 - New tariffs and procurement programs for standalone energy storage and the amendment of existing state-mandated procurements to include storage pairing can contribute to generating RI RECs and clean NEPOOL GIS certificates to mirror Rhode Island’s electric consumption. RI RES compliance reports over the past 5 years show that new RES distribution sourced from RI has accounted for less than 50% of the State’s electric need, with the other half representing out-of-

state and regional imports. The 2022 amendment to RES procurement drives the goal of reaching 100% RES compliance by 2033 and improvements to existing and installing new storage procurement methods can be utilized to increase the distributed and diversified in-state resources contributing to this total.

- Amending REG to include BESS pairing and a Clean Peak Standard will enable Rhode Island to drive closer to 100% RES compliance, but with a majority in-state commitment. Doing this will show that the in-state RES developments are directly reflected in the infrastructure investments, emission reductions and reliable electricity supply from resources that generate the least carbon emissions.
- **The development of a cohesive and practical energy storage procurement far in advance of the anticipated need-by dates within the Draft Report is critical.**
 - The interconnection study timelines for any RI project over 1 MW are complicated and can take multiple years before an impact study is completed. This is due to additional review requirements to the state EDC interconnection process that are overseen by ISO-NE (Section I.3.9 - PPA) to assess impacts on the electric power system. These additional study durations (like Level 3 Comprehensive Studies) in combination with the required delivery time per completed Interconnection Services Agreements can set the delivery schedules for DG renewable energy projects as far out as up to 5 years from application submission. Energy storage is studied in the exact same manner and has the same study expectations.
 - Following 2023 energy siting legislation, the deployment of ground-mounted utility-scale renewables in Rhode Island will be significantly reduced the next couple years. Excluding offshore wind, this will shift in-state solar deployment to canopies, feasible brownfields and rooftops. It's known that these deployments have greater overall costs and will need to be located within more congested load areas and these scenarios drive a greater need to evaluate the equitable implementation of BESS.
- **The energy storage procurement framework should consider export relief opportunities for existing and planned distributed and transmission-level renewable energy facilities producing power within Rhode Island.** Like in Scenario #2, a focus would be placed on reducing in-state curtailment and congestion situations by unlocking the optimal potential of previously curtailed or restrained electricity and REC production. This will increase the opportunity of a larger number of “homegrown” RECs sourced in RI and more efficient management of the needs for in-state electricity exports and out-of-state electricity imports. Creating a procurement for energy storage as standalone FTM DG/Transmission can be utilized to relieve current and future generation constraints within RI and enable additional capacity within the state. Standalone FTM BESS can be used to reduce Rhode Island's export of electricity beyond state boundaries and maximize the potential of it's in-state generation.
- **The draft report doesn't appear to reference the review of policies or programs in neighboring states like Connecticut or Massachusetts. Were any of the existing programs with association to energy storage in those states (Clean Peak Standard, SMART, CT NRES) reviewed when creating the draft report?**
- **We agree with the need for a standalone storage retail tariff and suggest an implementation deadline of 12/31/2024 and initiating a procurement by 12/31/2025.**



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- **In parallel to energy storage electric tariffs, we suggest a PUC-led cost-benefit analysis for the applicability of time-of-use rates for all retail rate classes, including future energy storage, microgrids and electric vehicles.** Rhode Island is currently the only New England state that has yet to adopt a time-of-use rate for retail customers or electric vehicles. Establishing TOU rates in RI can be used to naturally define and contain the coincident peak demand by influencing the end consumers' usage schedule. Using TOU to maintain the peak allows a timely and predictable need for BESS applications that can most efficiently create benefits from reducing Scenario 2's curtailment/congestion impacts and Scenario 3 from peak shaving.
- **The Draft Report should consider the qualitative impacts of localized energy development as a result of recent legislative initiatives that may impact the State's ability to achieve its short and long-term climate goals.** Renewable energy development and installation within Rhode Island is expected to decrease starting in the next couple years due to legislation passed in 2023 severely restricting facility siting. That same legislation also sets expansions to the REG and net metering programs with high targets, but the quantity of eligible projects will be lower. The remaining eligible facilities will be ground-mounted PV on brownfields, PV canopy and rooftop PV in regions of Rhode Island where congestion issues are pre-existing and site control, labor and installation costs are at a premium. The integration of energy storage pairing into REG and net metering programs will help to manage facility's electric discharge to the grid, reducing interconnection upgrade costs and regionalizing generation closer to the load areas that need it.
 - **We recommend the integration of paired storage as an optional adder to the REG program by the 2024 enrollment.** Amending existing state procurements, like REG, to include an incentive for BESS pairing with renewable resources will support RI's expansion of in-state generation and supply contributing to the RES goals, while reducing the infrastructure expansion costs when compared to standalone resources without BESS pairing.

Thank you for your time and consideration of our comments. We are available for follow-up questions or comments at your convenience.

Signed,

A handwritten signature in black ink, appearing to read "Hannah Morini".

Hannah Morini

VP Business Development & Policy