

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

In re: The Narragansett Electric Co. d/b/a National Grid
Solicitations of Long-Term Contracts for Renewable
Energy and Renewable Energy Certificates (RECs),
Pursuant to R.I. Gen. Laws § 39-26.1-1 et seq.

Docket No. 4822

COMMENTS OF FIRSTLIGHT POWER RESOURCES, INC.

Pursuant to the Procedural Schedule issued by the Rhode Island Public Utilities Commission (“PUC”) on May 10, 2018 in Docket No. 4822, FirstLight Power Resources, Inc. (“FirstLight”) submits these comments on the proposed Request for Proposals (“RFP”) filed by The Narragansett Electric Company d/b/a National Grid (“National Grid”) for review and approval pursuant to the Long-Term Contracting Standard for Renewable Energy, R.I. Gen. Laws § 39-26.1-1 et seq.

I. INTRODUCTION

FirstLight is a hydropower, energy storage, and solar generation company with assets based in Connecticut and Massachusetts. Our hydro facilities in New England produce over 690,000 MWh of emissions free generation, reducing the region’s carbon footprint by more than 780,000 tons annually. In addition to our traditional hydro facilities, we also own and operate Northfield Mountain pumped hydro storage station (“Northfield Mountain”) and Rocky River pumped hydro storage station (“Rocky River”), which are respectively the largest and third largest energy storage facilities in New England. These storage assets, which can provide more than 1,200 MW of storage charging and release capacity for up to 8 hours at a time daily, provide New England with the ability to store more than 11,229 MWh of renewable, emission-free energy during off-peak hours when demand is low and deliver that clean energy during the on-peak periods when demand is high.

II. COMMENTS

We appreciate the opportunity to comment on the draft proposal for the procurement of clean energy pursuant to the Long-Term Contracting Standard. FirstLight supports the state's efforts to reduce greenhouse gas emissions as mandated under statute and believes that Rhode Island is poised to advance into a cleaner, more reliable energy future. With this in mind FirstLight offers the following recommendations, which we believe will result in a more effective and efficient RFP process that will bring Rhode Island closer to its environmental goals.

A. Capabilities of Pumped Hydro Energy Storage

As New England's largest provider of existing energy storage, FirstLight has a deep understanding of the current status of the energy storage industry and how energy storage can assist the region in efficiently reaching its environmental goals. Energy storage is a necessary bridge technology that will ultimately help integrate clean energy resources like wind and solar into the grid by reducing or eliminating issues with intermittency. However, there is a misconception that energy storage is an expensive option that is universally cost prohibitive at an impactful scale. While this is true with regard to newer technologies, such as chemical batteries, New England already has more than 1,800 MW of energy storage connected into the system and does not require additional capital investment. Pumped hydro storage in particular has been a reliable large-scale energy storage resource for decades. Though these resources are already providing generation to the grid, they are capable of providing a great deal more to the region if they are leveraged differently.

Since the advent of electric industry restructuring, existing storage resources have operated as merchant generation resources on the spot market, which limits their operation to

periods in which it is economically viable to do so. Currently, Northfield Mountain, New England's largest energy storage asset with a nameplate capacity of 1,168 MW, operates below 30% of its total throughput capability. This resource alone, which is able to generate at full capacity for up to 8 hours on a daily basis, can provide Rhode Island and the region as a whole with significant environmental benefits on either a standalone basis or as a storage resource paired with large-scale clean energy resources.

In an independent assessment of Northfield Mountain, Energyzt Advisors, LLC found that increased usage of the available energy storage throughput at Northfield alone could save an additional 300,000 MT of carbon emissions per year. In addition to the environmental benefits, Energyzt determined that Northfield Mountain was capable of saving consumers \$2-\$3 MWh, while it operates and displacing up to 700,000 MMBtu/month of natural gas during winter peak periods. Energyzt concluded that by optimizing its energy storage throughput "Northfield offers at least \$235 million in economic benefits plus another \$8 million in estimated system benefits tied to environmental benefits." Pairing existing energy storage with other emissions-free assets, either on a standalone basis or as a direct contractual pairing, would only add to that value.

Given the current market construct, which is not designed to capture the benefits provided by energy storage, contractual arrangements are necessary to significantly increase the incremental throughput of energy storage resources. The proposed language in the RFP does not specifically address energy storage, leaving it open to interpretation as to whether bids that include energy storage will be accepted by the bid evaluation team. FirstLight recommends that Rhode Island consider including language in the RFP that will enable bidders to include energy storage as a resource that will be considered.

B. Pumped Hydro Energy Storage Is a Vital Component of Large Renewable Procurements in New England

FirstLight has already pursued the concept of pairing energy storage with intermittent clean energy in the recent Massachusetts procurement under Section 83C of the Commonwealth's 2016 Energy Diversity Act. The language of the Section 83C RFP specifically allowed for energy storage pairing. Deepwater Wind, GridAmerica Holdings, Inc., and FirstLight jointly proposed Revolution Wind, an offshore wind project that will be paired with Northfield Mountain to capture a portion of the wind farm's offpeak generation and deliver it on a daily basis into the peak. The Rhode Island Office of Energy Resources and the Department of Public Utilities and Carriers participated in that regional solicitation and selected the Revolution Wind bid for further contract negotiation with National Grid under the Affordable Clean Energy Security Act, R.I. Gen. Laws § 39-31.

FirstLight recommends that Rhode Island include similar language in the proposed RFP that will enable paired energy storage bids. Based on experience with the Massachusetts Section 83C RFP, FirstLight recommends that the language in the currently proposed RFP should clarify that an energy storage bid could be paired with a specific project, or more beneficially, offered on a standalone basis with an obligation to store offpeak energy from all of Rhode Island's offshore wind procurements. Soliciting paired energy storage bids would further the purposes of the Long-Term Contracting Standard, because it would "facilitate the creation of commercially reasonable long-term contracts between electric distribution companies and developers or sponsors of newly developed renewable energy resources," by improving the economic value of renewable energy generation, stabilizing long-term energy prices by shifting delivery from offpeak to peak periods, and enhancing environmental quality. R.I. Gen. Laws, § 39-26.1-1.

The language of Rhode Island’s RFP in soliciting energy storage bids should avoid restricting the definition of qualifying energy storage that may be paired with a newly developed renewable resource. The Massachusetts Department of Public Utilities expressly declined “to place restrictions on energy storage to allow for a broader range of proposals in response to the RFP.”¹ That RFP resulted in a robust regional solicitation. The Connecticut Department of Energy and Environmental Protection (“DEEP”), on the other hand, restricted qualifying energy storage to systems that are co-located with the renewable resource, although this restriction was not mandated by the Connecticut statutory definition of energy storage. This unnecessary qualification has limited Connecticut’s options to newly built technologies that cannot provide the scale or cycling capability that incrementally increasing the usage of New England’s existing energy storage assets can provide. FirstLight strongly recommends that Rhode Island avoid unnecessarily restricting energy storage pairing to projects co-located or delivered into specific nodes. We support the current PTF delivery point as proposed and urge the Commission to retain that provision.

Based on past experience with both Connecticut and Massachusetts, we believe that specifically allowing for both new and existing energy storage resources will result in many more options for Rhode Island to consider as it determines its best path forward.

We urge the Rhode Island PUC to clarify that existing energy storage facilities may contractually pair with clean energy resources under this and future procurements. Maximizing the throughput of existing energy storage through contractual pairing with emissions-free resources will also allow the state to avoid the huge cost associated with newly built storage resources at a scale that would be detrimental to Rhode Island achieving its environmental and

¹ *Joint Petition for approval of a proposed timetable and method for the solicitation and execution of long-term contracts for offshore wind, pursuant to Section 83C of An Act Relative to Green Communities, St. 2008, c. 169, as amended by St. 2016, c. 188, § 12, Order at 56, D.P.U. 17-103 (2017).*

energy goals. At the very least, allowing bidders to propose projects that pair with existing storage will enable the state to afford itself the ability to evaluate a greater number of options, while simultaneously syncing its procurement efforts with that of the Commonwealth of Massachusetts, which did accept such bids. We believe that, by maximizing the energy storage throughput that is already available, but underutilized on the grid, Rhode Island will reduce greenhouse gas emissions, improve winter reliability issues, and save ratepayers a significant amount of money over the course of the contract.

Respectfully submitted,

**FIRSTLIGHT POWER
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