

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

Petition of the Episcopal Diocese of Rhode Island for Declaratory Judgment on Rhode Island General Laws §39-26.4, the Net-Metering Act

**Docket No.**

**PETITION OF THE EPISCOPAL DIOCESE FOR DECLARATORY JUDGMENT**

Pursuant to R.I.G.L. § 42-35-8(c)<sup>1</sup> and Procedural Rule 1.10(c)<sup>2</sup> of the Rhode Island Public Utilities Commission’s (“Commission”) Rules of Practice and Procedure, the Episcopal Diocese of Rhode Island petitions the Commission for a Declaratory Judgment with respect to the eligibility for net metering of renewable energy generating facilities paired with battery storage, pursuant to R.I.G.L. § 39-26.4 et seq., where: 1) the battery storage charges only from the generation system; and (2) where the customer-host does not take electric supply service under a time-varying or time-of-use (“TOU”) rate (“Rhode Island Small Scale Solar+Storage”); and (3) where the generator does not claim the right to capacity payments or the value of ancillary services. In docket 4743, the Commission declared generating systems under 25kW that are paired with storage eligible for net metering and anticipated consideration of qualifying larger systems. The Commission has not opened that successor docket yet. As detailed in the pending interconnection dispute resolution docket 4973, National Grid has restricted the generating capacity of the Diocese’s proposed renewable energy project in Glocester due to voltage concerns. That project is designed principally to generate rental income that will save a summer camp for urban youth that is operating at an unsustainable deficit. To date, National

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<sup>1</sup> R.I.G.L. § 42-35-8(c) specifies that “Not later than sixty (60) days after receipt of a petition under subsection (a), an agency shall issue a declaratory order in response to the petition, decline to issue the order, or schedule the matter for further consideration.”

<sup>2</sup> RIPUC Rules 1.10(c) allows for petitions for declaratory judgments as to the applicability or inapplicability of a statutory provision in question.

Grid has indicated that it can approve interconnection of only 2.2MW of solar generating capacity at a cost of \$1.5 million. The economics of that proposition do not work for the Diocese. National Grid has expressed a willingness to work with the Diocese to consider whether battery storage could be used to even the generating profile, such that a larger project could be developed. However, any such collaboration is first dependent on the Commissions authorization of net metering for larger projects paired with storage.

The Diocese seeks clarification that systems meeting the aforementioned three criteria for renewable energy generation and storage qualify as “Eligible Net-Metering Systems,” as defined in R.I.G.L. § 39-26.4-2(5), and are therefore eligible for net-metering services pursuant to National Grid’s Net-Metering Provision (“Tariff”).<sup>3</sup> The Diocese asserts that as long as the battery stores electricity that was only generated using renewable energy,<sup>4</sup> the battery’s inclusion does not disqualify a system from net-metering eligibility. The definition of an “Eligible Net-Metering System” does not specifically exclude battery storage equipment.

While the Diocese has been informed by National Grid and the Commission that including the right to the value of capacity and ancillary services in this Petition may slow down the Commission’s ability to rule on it (as it evidently has done in Massachusetts), the Diocese asks the Commission to investigate and resolve the administrative issues with recognizing such value so that a storage and generation project can also benefit from that value once resolved. In Docket 4660, the Commission set a goal that distributed energy resources shall be appropriately compensated for the value they provide to the electricity system, customers, and society.

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<sup>3</sup> National Grid’s Net-metering Tariff defines an “Eligible Net-metering System” in part as “a facility generating electricity using an Eligible Net-metering Resource that is reasonably designed and sized to annually produce electricity in an amount that is equal to or less than the Net-metering Customer’s usage at the Eligible Net-metering System Site measured by the three-year average annual consumption of energy over the previous three years at the Net-metered Account(s) located at the Eligible Net-metering System Site.” See Tariff, Section I.

<sup>4</sup> See National Grid’s Net-metering in Rhode Island web page, defining net-metering eligibility, *available at* [https://www.nationalgridus.com/narragansett/home/energyeff/4\\_net-mtr.asp](https://www.nationalgridus.com/narragansett/home/energyeff/4_net-mtr.asp).

## **I. BACKGROUND**

The Diocese's planned project is located on the grounds of the Episcopal Conference Center and Camp in Gloucester. The Project would generate rent to save the Diocese's summer camp for disadvantaged youth, operating with an annual deficit in excess of \$250,000, while providing net metering credits to all their parishes and other non-profit, religious organizations in Rhode Island and fulfilling the Diocese mission of creation care. The Diocese intends to develop two solar projects on the camp property, the Eastern and Western projects bifurcated by Reservoir Road, using about 40 acres of remote portions of the Diocese property that consists of approximately 184 acres of former farmland. The Diocese has received master plan approval and a special use permit from Gloucester. Although the Diocese initially applied to interconnect 6.8MW of capacity, given NGrid's current limitation of the Project to 2.2MW and the Diocese's improved understanding of the requirements of ISO's planning processes, the projects will have less than 5MW of generating capacity even when aggregated.

The Diocese received feasibility study results in April 2018 that estimated a cost of \$602,000 for each site. Discussions with NGrid's technical personnel indicated that some of the work would need to be done only once for the combined projects, so the estimated total was therefore approximately one million dollars to interconnect both sites. Relying on NGrid's feasibility analysis, the Diocese and its partner RER then invested hundreds of thousands of dollars (as detailed below) to overcome a solar moratorium through litigation and secure zoning and permitting approvals from Gloucester for the Eastern and Western projects.

The Diocese applied for Impact Studies on both projects. On April 17th, 2019, NGrid informed the Diocese that interconnection would not be possible unless the Project was limited

to 3MW or less and the Diocese paid for significant upgrades to several circuits and a substation (hereinafter “re-conductoring”) at a projected cost of \$3 to 3.5 million. That reduction in capacity with such significant interconnection costs, makes the economics unworkable.

The Diocese asked NGrid’s technical team how much capacity it could put on the system without re-conductoring. NGrid modeled that and said their system could only handle 2 MW without re-conductoring, at a cost of \$650,000 (consistent with NGrid’s original Feasibility Study.) The Diocese, concerned that 2 MW for \$650,000 would be difficult to finance, requested 2.2 MW, and NGrid declared that 2.2MW would also be feasible. The Diocese indicated a willingness to proceed with the impact study on just the Eastern Project at 2.2 MW while it continued to address the issues confronting interconnection of the Western Project.

In August 2019, NGrid produced an Impact Study for the Eastern Project, quoting a cost of \$1.5 MM to interconnect 2.2MW. NGrid indicated that the prior estimates were for upgrading from single-phase to three-phase but did not contemplate the need to modify protection along the other circuits in the area and at the point of common coupling at the facility, to manage voltage issues on the system and provide for anti-islanding – at a cost of more than \$1 million in additional line and substation upgrade costs.

In August 2019, NGrid issued a “Final Impact Study” on the Western Project. It refused interconnection. That study said that the “expected least-cost interconnecting circuit would be the circuit adjacent to the site, which is the 34F2, a 12.47 kV regulated, three-phase, 4 wire, wye, effectively-grounded, radial distribution circuit that originates out of the Company’s Chopmist No. 34 Substation, in Foster, RI . . . .” but “no amount of system modifications could be performed on this circuit that would make this interconnection feasible. The Company can conduct further study on another circuit, which would require a new impact study.”

On June 28, 2019, at NGrid's request, the Diocese sent NGrid an alternative proposal on a possible path forward on the Western Project in light of NGrid's conclusion that the Eastern Project would consume all the available capacity, even at its reduced output of 2.2 MW. The Diocese raised integration of a storage system as a possible means to address the system capacity concern. NGrid requested a proposal. Given the Diocese's limited access to data about how that circuit (or any other circuit) functions, it sent NGrid an outline of a possible solution. NGrid expressed two concerns with the storage proposal: (1) The insertion of storage between the solar generator and the point of injection may not meet the definition of a renewable energy resource under the net metering law and the renewable energy standard, depending upon how the storage is configured and what the PUC approves; and (2) The Diocese was deficient in providing details on the storage project and how much it would cost.

The Diocese storage system would not be back-charged from the grid; it would be a DC to DC storage system, simply storing energy produced by the Western Project for injection when the Eastern Project is not injecting the full allowed capacity of the interconnection and at times when the circuit is capable of handling more capacity.

## **II. ARGUMENT**

The question of whether renewable energy generation projects with over 25kW of capacity linked with storage qualify for net metering has created uncertainty for customers that impedes the development of paired generation and storage systems across National Grid's service area and may impede Rhode Island's ability to fulfill its renewable energy goals and policies. The Diocese respectfully requests clarity so that it can move an economically viable Project forward.

**1. Generation and Storage Facilities Should Qualify as Eligible Net Metering System, when the Storage Component Holds *Only* Energy Generated by a PV Solar System.**

An “Eligible Net Metering System” is defined as “a facility generating electricity using an eligible net-metering resource that is reasonably designed and sized to annually produce electricity in an amount that is equal to, or less than, the renewable self-generator’s usage at the eligible net-metering-system site measured by the three-year (3) average annual consumption of energy over the previous three (3) years at the electric-distribution account(s) located at the eligible net-metering-system site. . .” R.I.G.L. § 39-26.4-2 (5). The definition of an “eligible net-metering resource” includes “direct solar radiation.” R.I.G.L. § 39-26.5-2(5) and § 39-26-5 (a)(1). The Diocese maintains as detailed below, that a generating and storage facility *is* “a facility generating electricity using an eligible net-metering resource” because it stores only energy that was “generat[ed] using an eligible net-metering resource.”

Today’s inverter technology disables battery charging from the grid and allows charging to occur only when there is power available from the renewable energy generating facility. This solution is achievable by a number of commercially available inverters. Thus, the batteries may be configured, or are configured, such that they use only the electricity generated by the direct solar radiation, and when so paired, fit squarely within the definition of an “eligible net-metering facility.”

Accordingly, the Diocese asks the Commission to find that generating and storage systems that only charge from renewable energy generation but may export that stored energy from the battery (subject to the rate classification limitations) to the electricity grid are eligible for net metering, as long as they have control measures that ensure that the battery charges only from the renewable energy.

## **2. The Generation and Storage Configuration is Not Prohibited by the Net Metering Laws.**

“Eligible net-metering system” contains no mention of the inclusion of battery storage as part of a facility. However, the definition also does not preclude the facility from containing a storage component. Indeed, the definition does not limit how the production “uses” generated electricity, nor anywhere does it use the word “only,” or any other limiting or exclusionary language.

Further, R.I.G.L. § 39-26-4 provides that Rhode Island’s net-metering law “shall be construed liberally in aid of its declared purposes.” R.I.G.L. § 39-26.4-1 states:

The purpose of this chapter is to facilitate and promote installation of customer-sited, grid-connected generation of renewable energy; to support and encourage customer development of renewable generation systems; to reduce environmental impacts; to reduce carbon emissions that contribute to climate change by encouraging the local siting of renewable energy projects; to diversify the state’s energy generation sources; to stimulate economic development; to improve distribution system resilience and reliability; and to reduce system costs.

The Diocese’s construction, which would increase the numbers of installations of systems that would meet the legislature’s purpose, serves the Rhode Island legislature’s intent than current policy, which limits the numbers of eligible systems installed.

## **3. Other Jurisdictions Have Examined this Issue and Concluded that the Inclusion of a Battery Component in a Renewable Energy Project does not Render the Project Ineligible for Net Metering**

Rhode Island is not the first jurisdiction to entertain the issue of whether inclusion of a battery storage component renders ineligible a paired renewable energy generation and battery storage system. Other jurisdictions that have entertained the issue have found that certain paired facilities remain eligible for net metering credits.

Colorado regulators have held certain paired systems eligible for net energy metering.<sup>5</sup> The New York Public Service Commission made clear that while it would separately explore whether to impose any conditions on paired systems, certain small scale paired projects would remain eligible to participate in net metering programs.<sup>6</sup> The Massachusetts Division of Public Utilities found that certain small scale paired systems are eligible to net meter while it conducts a separate inquiry into all potential issues related to the eligibility of net metering facilities paired with energy storage systems. The Department issued an interim advisory ruling on September 12, 2017, finding that small scale generating and battery storage facilities configured in the manner as described in this Petition were eligible to net meter.<sup>7</sup> The Department noted that the legislature had not addressed the interaction between Solar Net Metering Facilities and Energy Storage Systems. As such, the Department recognized that a regulatory gap exists regarding Energy Storage Systems and Solar Net Metering Facilities subject to G.L. c 164 §§138-140, thereby creating uncertainty for net metering stakeholders. The Department went on to say that net metering has become increasingly important to the development of a robust and stable market for renewable energy projects in the private and the public sectors. Thus, by supporting the eligibility of generating and storage facilities for net metering services was consistent with the larger legislative design to encourage the development of renewable and alternative energy throughout the Commonwealth, including the use of Energy Storage Systems. Further, the

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<sup>5</sup> August 15, 2016 Order (Non-Unanimous Comprehensive Settlement Agreement), p. 21, Colorado Public Utilities Commission Proceeding No. 16AL-0048E, *Re: In the Matter of Advice Letter No. 1712-Electric Filed by Public Service Company of Colorado to Replace Colorado PUC No. 7-Electric Tariff with Colorado PUC No. 8-Electric Tariff*, 16-A-0055E, *In the Matter of the Application of Public Service Company of Colorado for Approval of its Solar\* Connect Program*; and 16A-0139E, *In the Matter of the Application of Public Service Company of Colorado for Approval of its 2017-2019 Renewable Energy Compliance Plan*.

<sup>6</sup> Case No. 15-E-0751, *In the Matter of the Value of Distributed Energy Resources*, Order on Net Energy Metering Transition, Phase One of the Value of Distributed Energy Resources, and Related Matters, at 17 (March 9, 2017).

<sup>7</sup> M.D.P.U. 17-105 at 4.

Department agreed that other considerations are mitigated under the conditions the Diocese accepts in this Petition. Our understanding is that the only remaining concern that has delayed approval of generation and storage net metering for all projects in Massachusetts is complications over how capacity value will be treated. The Diocese accepts a condition that it may not sell capacity or obtain value for other ancillary services at this time in Rhode Island pending further discovery and proceedings.

Battery-enabled shifting of load to reduce demand when electricity is most expensive is exactly the type of behavior regulators are seeking to encourage. Studies show that customer-sited energy storage can provide the largest number of services to the customer and to the electricity grid. Storage can provide customer services (backup power, increased PV self-consumption, time-of-use bill management, etc.), utility services (distribution deferral, transmission deferral, transmission congestion relief, resource adequacy) and even ISO services (energy arbitrage, spin and non-spin reserves, frequency regulation, voltage support, and black start).<sup>8</sup> Many of these benefits cannot be realized unless the battery is enabled to export stored clean energy to the electricity grid.

Significantly, the California Public Utilities Commission issued a ruling that made explicit its intent to prioritize and incentivize paired projects that provide “grid support.”<sup>9</sup> Restricting export from battery storage systems would restrict the operational capability of the battery system to provide the maximum benefits to the grid.

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<sup>8</sup> Fitzgerald, Garrett, James Mandel, Jesse Morris, and Hervé Touati. *The Economics of Battery Energy Storage: How multi-use, customer-sited batteries deliver the most services and value to customers and the grid.* Rocky Mountain Institute, September 2015. <<[http://www.rmi.org/electricity\\_battery\\_value](http://www.rmi.org/electricity_battery_value)>>

<sup>9</sup> See Orders issued on June 23, 2016 and June 2, 2017, in D. 16-06-055, *Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.*

### **III. CONCLUSION and PRAYER FOR RELIEF**

For the reasons stated herein, the Diocese respectfully asks the Commission to issue a Declaratory Judgment confirming that generating and storage systems, where the battery storage component charges only from the renewable energy generating system, the customer-host does not take electric supply service under a time of use and where the generator does not claim the right to capacity payments or the value of ancillary services, are eligible for net metering. While the Diocese has been informed by National Grid and the Commission that including the right to the value of capacity and ancillary services in this Petition may slow down the Commission's ability to rule on it (as it evidently has done in Massachusetts), the Diocese also asks the Commission to investigate and resolve the administrative issues with recognizing such value, so that a storage and generation project can also benefit from that value once resolved. In Docket 4660, the Commission set a goal that distributed energy resources shall be appropriately compensated for the value they provide to the electricity system, customers, and society.

**THE EPISCOPAL DIOCESE OF  
RHODE ISLAND**

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**CERTIFICATE OF SERVICE**

I hereby certify that on October 9, 2019, I delivered a true copy of the foregoing document to National Grid by electronic mail.

  
Helen D. Anthony  
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