

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

IN RE: PETITION OF THE EPISCOPAL :
DIOCESE OF RHODE ISLAND FOR :
DECLARATORY JUDGMENT ON : **DOCKET NO. 4982**
RHODE ISLAND GENERAL LAWS :
§ 39-26.4-1 TO 5, THE NET METERING ACT :

ORDER

On October 11, 2019, the Episcopal Diocese of Rhode Island (Petitioner) filed with the Public Utilities Commission (PUC) a Petition for Declaratory Judgment (petition) seeking a declaration that renewable energy generating systems paired with storage on systems in excess of 25 kW alternating current (AC), where the battery storage charges only from the renewable power generation system, where the customer/host does not take electric supply under a time-varying or time-of-use rate, and where the generator does not claim the right to capacity payments or the value of ancillary services, are eligible net metering systems.¹ Petitioner also requested that the PUC open a separate proceeding, as contemplated in its order in Docket No. 4743, to address net-metering eligibility and treatment of systems under different system configurations, use-cases, sizes, and rate structures and to include consideration of capacity and ancillary service values and ownership.²

Petitioner noted that In Docket No. 4743, the PUC declared that “Solar power generating systems no greater than 25 kW AC, and paired with battery storage, where the battery is only charged from the solar power generation system, and the host is not on time-of-use rates, fall within

¹ Pet. at 1-2; <http://www.ripuc.org/eventsactions/docket/4982-EpiscopalDiocese-DJ-NM-Storage%2010-11-19.pdf>. Petitioner has standing as a customer of The Narragansett Electric Company d/b/a National Grid seeking to develop a solar powered generation system paired with storage to qualify for net metering under the public entity remote net metering program.

² Pet. at 1. Petitioner agreed to neither sell capacity nor obtain value for ancillary services in Rhode Island pending further discovery and proceedings. *Id.* at 9.

the definition of an eligible net metering system.”³⁴ Petitioner asserted that regardless of the size of the system, a solar-paired-with-storage system is a net metering facility under R.I. Gen. Laws § 39-26.4-2(5). Petitioner noted that newer inverter technology on solar facilities disables battery charging from the grid and allows charging to occur only when there is power available from the energy generating facility. Petitioner recognized that this configuration would be necessary to allow the combined system to fit within the definition of eligible net metering system.⁵ Thus, the Petitioner reiterated its request that the PUC find renewable generating systems paired with storage that only charge from the renewable energy generation resource and discharge to the grid eligible for net metering as long as they have control measures in place to prevent charging from the electric grid.⁶

Comments were received from The Narragansett Electric Company d/b/a National Grid (National Grid), the Division of Public Utilities and Carriers (Division), and the Office of Energy Resources (OER). OER supported integrating energy storage with solar PV systems regardless of

³ Order No. 22991 (Dec. 22, 2017).

⁴ "Eligible net-metering system" means:

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. A projected annual consumption of energy may be used until the actual 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 becomes available for use in determining eligibility of the generating system. The eligible net-metering system may be owned by the same entity that is the customer of record on the net-metered accounts or may be owned by a third party that is not the customer of record at the eligible net-metering system site and which may offer a third-party, net-metering financing arrangement or net-metering financing arrangement, as applicable. Notwithstanding any other provisions of this chapter, any eligible net-metering resource: (i) Owned by a public entity, educational institution, hospital, nonprofit, or multi-municipal collaborative or (ii) Owned and operated by a renewable-generation developer on behalf of a public entity, educational institution, hospital, nonprofit, or multi-municipal collaborative through net-metering financing arrangement shall be treated as an eligible net-metering system and all accounts designated by the public entity, educational institution, hospital, nonprofit, or multi-municipal collaborative for net metering shall be treated as accounts eligible for net metering within an eligible net-metering-system site.

R.I. Gen. Laws § 39-26.4-5.

⁵ Pet. at 6.

⁶ *Id.*

solar system capacity. Noting that energy storage has the potential to benefit customers, the electric system, and society, OER supported “efforts to reduce barriers to storage deployment in Rhode Island and advance prudent policy measures to promote this technology in a thoughtful, cost-effective manner.”⁷

In its comments, the Division recommended approving the petition with the following conditions: (1) the solar power generating system is greater than 25 kW; (2) the battery storage system only charges from the solar generating system; (3) National Grid shall have the right to inspect such solar storage system to ensure that no grid charging occurs; and (4) any violation of these provisions would cause the customer host to lose its net metering credits.⁸

In its response to the petition, National Grid stated that expanding the PUC’s prior “declaration to systems larger than 25 kW AC is consistent with the stated purposes of Chapter 39-26.4, provided that the Commission retains the condition that the battery is only charged from the solar power generation system.”⁹ National Grid raised certain technical concerns and suggested opening the previously-contemplated broad-based storage docket would be timely.

Specifically, National Grid raised the following technical and policy considerations for a storage docket:

- How to adequately police the restriction against charging battery storage with non-renewable (brown) power from the grid to augment net metering revenues to the detriment of all other customers who fund the program over the lifetime of these projects (20+ years).
- As all projects over 25 kW are now required to have interval metering, they have access to time-varying rates (TVR) now through either third-party energy suppliers or in the wholesale market. Customers with net metering facilities less than 25 kW do not have the same access because advanced metering infrastructure is not in place to enable TVR. The Commission should, at a minimum, adopt the condition presented in Petitioner’s request

⁷ OER Comments (Nov. 15, 2019); [http://www.ripuc.org/eventsactions/docket/4982-OER-Comments\(11-15-19\).pdf](http://www.ripuc.org/eventsactions/docket/4982-OER-Comments(11-15-19).pdf).

⁸ Division Comments at 4 (Nov. 15, 2019); <http://www.ripuc.org/eventsactions/docket/4982-DIV-Comments%2011-15-19.pdf>.

⁹ National Grid Response at 4 (Nov. 15, 2019); [http://www.ripuc.org/eventsactions/docket/4982-NGrid-Comments\(11.15.19\).pdf](http://www.ripuc.org/eventsactions/docket/4982-NGrid-Comments(11.15.19).pdf).

that customers with net metering systems paired with battery storage will not take electric supply service under a TVR. The Commission should consider further how to prevent market manipulation through TVR, including when provided by third-party suppliers.

- How to maximize the value of energy storage if it is part of the net metering subsidy program for all customers. Specifically, whether the Company should be granted the ability to develop operating requirements for discharge of energy to reduce peak loading and prevent overloads from charging at the wrong times, something that will likely change over time as loading changes on the system.
- Interconnection requirements for energy storage need to be considered further. The current OER sponsored proceeding on modifying the interconnection tariff to clarify requirements when transmission level studies are required has not included any discussions relative to interconnection requirements for energy storage. Interconnection of energy storage has been a significant part of the related proceeding in Massachusetts under Docket D.P.U. 19-55. Similar considerations should be explored in Rhode Island.
- Metering requirements specific to energy storage and solar paired with energy storage also need to be considered to ensure that metering requirements support participation in the wholesale markets to capture the full value of energy storage.
- The Commission should consider whether the value of energy storage that could be gained from the wholesale markets participation should be used to offset costs of net metering and Renewable Energy Growth programs for all other non-participating customers, as has been discussed in Massachusetts under D.P.U. 17-146.
- The Commission should consider appropriate methods of maintaining the restriction on not exceeding the three-year average use of a single customer of multiple off-takes in a community (or virtual) net metering project by limiting the DC to AC ratio on projects.¹⁰

On November 27, 2019, Petitioner filed reply comments, noting that no comments had been received opposing the requested declaration.¹¹ Petitioner also proposed additional considerations for a storage docket:

- Administratively-based programs to identify the areas of the National Grid service territory with the greatest transmission and/or distribution constraints, as well as identifying potential non-wires alternative solutions (for example through use a targeted procurement process) that could cost-effectively defer or down-size traditional distribution investments.

¹⁰ *Id.* at 5-6.

¹¹ Petitioner's Reply at 1 (Nov. 27, 2019); <http://www.ripuc.org/eventsactions/docket/4982-EpiscopalDiocese-StorageReply%2011-27-19.pdf>.

- Targeting distributed energy resources (DERs) (e.g., microgrids, electric vehicle (EV) infrastructure, distributed generation (DG)) to neighborhoods with high economic and/or environmental locational value.
- Use both existing and new targeted incentives, pricing, or both in areas with greatest distribution constraints to incentivize demand reduction.
- Broad-based location-based pricing (once more granular information is readily available).
- Congestion-based pricing.¹²

At an Open Meeting held on December 17, 2019, the PUC reviewed the filings and the relevant law and declared that a renewable energy power generating system paired with battery storage fall within the definition of an eligible net metering system when: (1) the battery is only charged from the solar power generation system; (2) the host is not on time-of-use rates; (3) the generator/customer does not claim the right to capacity payments or the value of ancillary services markets; (4) and the entire system (renewable energy power generating system + storage) is paired on the customer side of the retail meter. The PUC also provided that National Grid shall have the right to inspect the paired system to ensure that it is configured to allow no charging of the storage unit from the electric grid.

While the petition was specific to solar paired with storage, the Net Metering Act does not prohibit other renewable energy power generating systems from being paired with storage. Any other renewable energy power generating system, of course, would still needs to have controls in place to ensure the battery is only charged from the solar power generation system. It would be contrary to statutory intent and all logic to allow a battery to charge from the electric grid, so-called brown power, and then claim renewable net metering credits, green power, when it discharged to the electric grid.

¹² *Id.* at 2-6.

The PUC also opened Docket No. 5000, entitled Public Utilities Commission's Investigation into the Treatment of Storage as an Electric Distribution System Resource. This matter will include short-term and long-term inquiries. It will focus first on distributed generation paired with storage and later consider standalone storage. At the outset, the PUC will issue a thirty-day notice to solicit comments from stakeholders on the scope of the docket. It will reconvene after the close of the comment period to determine the scope and discuss the appropriate process for this docket. The PUC found that the items on both National Grid's and Petitioner's list will be relevant, although some are more long-term items than others.

The docket will include the following broad topics: (1) identification of the costs and value streams of distributed energy resources under each of the programs in which renewable energy distributed energy resources can currently participate; (2) identification of the costs and value streams of distributed energy resources paired with storage under each of the programs in which renewable energy distributed energy resources can currently participate; (3) understanding whether and how the design and purpose of a paired system changes the costs and value streams; (4) identification of an definition of inappropriate market activity; (5) understanding of concerns with time-of-use rates and implications on the previously identified costs and value streams; and (6) ownership of capacity and ancillary services values.¹³

Prior to finalizing the scope of the docket, the PUC will decide on the appropriate forum for considering interconnection requirements for renewable distributed generation paired with storage. Stakeholders have been meeting to negotiate changes to the Distributed Generation Interconnection Standards. The paired-storage interconnection issues may be more appropriately

¹³ Ownership of capacity and ancillary services values will likely overlap with interconnection requirements. For example, a generating unit seeking to participate in the wholesale market may be required to interconnect through the ISO-NE process rather than the state process.

and efficiently address in a docket to consider proposals that may come before the PUC on the Distributed Generation Interconnection Standards.

Docket No. 5000 is intended to be a deliberative investigation to ensure that implementation of state energy policy goals are achieved in a least-cost manner consistent with the Docket No. 4600 goals, principles, and cost-benefit framework. This is consistent with OER’s position that efforts to “advance prudent policy measures to promote this technology [be done] in a thoughtful, cost-effective manner.”¹⁴

Among costs and benefits to the broad categories in the benefit-cost framework, it is important for all stakeholders to understand that the PUC will consider the costs and value streams that impact both participants and non-participants. Ultimately, rates should reflect these value streams. Setting of more dynamic rates will likely be a longer term goal dependent upon the ability to evaluate costs and benefits over time. In addition, while the PUC has broad ratemaking authority under various statutes (for example, R.I. Gen. Laws § 39-26.6-24 – renewable energy growth rate design and R.I. Gen. Laws § 39-1-27.7(a)(1)(iv) - system reliability and least cost procurement), the pricing elements will need to be reviewed in the context of the statutorily mandated net metering rate compensation.

It is hereby:

(23748) DECLARED:

That a renewable energy power generating system paired with battery storage fall within the definition of an eligible net metering system when: (1) the battery is only charged from the renewable energy power generation system; (2) the host is not on time-of-use rates; (3) the generator/customer does not claim the right to capacity payments or the value of ancillary services

¹⁴ OER Comments (Nov. 15, 2019).

markets; (4) and the entire system (renewable energy power generating system + storage) is paired on the customer side of the retail meter. National Grid shall have the right to inspect any such paired system to ensure that it is configured to allow no charging of the storage unit from the electric grid.

EFFECTIVE AT WARWICK, RHODE ISLAND ON DECEMBER 23, 2019
PURSUANT TO AN OPEN MEETING DECISION ON DECEMBER 17, 2019. WRITTEN
ORDER FILED WITH THE SECRETARY OF STATE'S OFFICE ON DECEMBER 23, 2019.

PUBLIC UTILITIES COMMISSION



Margaret E. Curran

Margaret E. Curran, Chairperson

*Marion S. Gold, Commissioner

Abigail Anthony

Abigail Anthony, Commissioner

*Commissioner Gold concurs with the decision but is unavailable for signature.

Notice of Right of Appeal: Pursuant to R.I. Gen. Laws § 39-5-1, any person aggrieved by a decision or order of the PUC may, within 7 days from the date of the Order, petition the Supreme Court for a Writ of Certiorari to review the legality and reasonableness of the decision or Order.