



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
PUBLIC UTILITIES COMMISSION

IN RE: PETITION OF TESLA, INC. AND SUNRUN, INC. :  
FOR DECLARATORY JUDGMENT OR AN ADVISORY : DOCKET NO. 4743  
RULING ON R.I. GEN. LAWS § 39-26.4, :  
THE NET METERING ACT :

ORDER

On September 28, 2017, Tesla, Inc. and Sunrun, Inc. (Petitioners) filed with the Public Utilities Commission (PUC) a Petition for Declaratory Judgment (petition) seeking a declaration that solar powered generation systems paired with battery storage -- where the solar power generating system is no greater than 25 kW alternating current (AC), the battery storage charges only from the solar power generation system, and the customer-host does not take electric supply under a time-varying or time-of-use rate (Rhode Island Small Scale Solar+Storage) -- are eligible net metering systems. Subsequently, following the receipt of comments from the Division of Public Utilities and Carriers (Division) and The Narragansett Electric Company d/b/a National Grid, Tesla stated, “[f]or purposes of ensuring timely decision on the Petition, Tesla is agreeing to the requirement where the battery component does not discharge to the grid and only charges from the eligible net metering facility.”<sup>1</sup> Petitioners also requested that the PUC open a separate proceeding to address net-metering eligibility and treatment of systems under different system configurations, use-cases, sizes, and rate structures.<sup>2</sup>

<sup>1</sup> Pet. at 1; [http://www.ripuc.org/eventsactions/docket/4743-Tesla-Sunrun-Petition\(9-26-17\).pdf](http://www.ripuc.org/eventsactions/docket/4743-Tesla-Sunrun-Petition(9-26-17).pdf); Tesla Reply Comments at 1-2; [http://www.ripuc.org/eventsactions/docket/4743-Tesla-ReplyComments\(11-14-17\).pdf](http://www.ripuc.org/eventsactions/docket/4743-Tesla-ReplyComments(11-14-17).pdf). Petitioners have standing as developers of solar powered generation systems paired with storage who are seeking to participate as developers in the net metering market in Rhode Island.  
<sup>2</sup> Pet. at 1. No commenter objected to a broader docket to address storage in the context of net metering. National Grid did not comment at all on the request. The Division suggested the PUC open a new docket if and when it were to consider time-of-use rates. Division Comments at 5; [http://www.ripuc.org/eventsactions/docket/4743-DPU--Comments\(11-7-17\).pdf](http://www.ripuc.org/eventsactions/docket/4743-DPU--Comments(11-7-17).pdf). The Office of Energy Resources (OER) and Northeast Clean Energy Council (NECEC) supported the opening of a docket. OER Comments; [http://www.ripuc.org/eventsactions/docket/4743-OER-Comments\(11-7-17\).pdf](http://www.ripuc.org/eventsactions/docket/4743-OER-Comments(11-7-17).pdf); NECEC Comments at 2; [http://www.ripuc.org/eventsactions/docket/4743-NECEC-Comments\(11-16-17\).pdf](http://www.ripuc.org/eventsactions/docket/4743-NECEC-Comments(11-16-17).pdf).

On November 28, 2017, after reviewing the docket, the PUC declared that Rhode Island Small Scale Solar+Storage, with the additional condition that the system not export to the electric grid, qualifies as an eligible net metering system. The PUC also found that it was appropriate to open a new docket to address the net-metering eligibility and treatment of systems under different system configurations, use-cases, sizes, and rate structures. On December 20, 2017, following a request from Tesla to reopen the docket to have the PUC reconsider its imposition of the prohibition of discharging from the battery to the distribution grid, the PUC struck the prohibition and 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 the definition of an eligible net metering system.

In support of their petition, Petitioners submitted that the addition of a storage component to a solar power generating system, where the battery is charged from the solar photovoltaic system, should not disqualify a solar photovoltaic system from net-metering eligibility. According to Petitioners, as long as the solar power generating system is using an eligible net metering resource to generate electricity and is sized according to the statutory requirements, the addition of a battery charged from the solar power generating system should not preclude it from being net-metering eligible.<sup>3,4</sup> Petitioners asserted that, to date, National Grid has denied net-metering

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<sup>3</sup> Pet. at 2. 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 average annual consumption of energy over the previous three 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 average annual consumption of energy over the previous three 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. R.I. Gen. Laws § 39-26.4-2(5). An eligible net metering resource means eligible renewable-energy resource, includes direct solar radiation and fuel cells using direct solar radiation. R.I. Gen. Laws §§ 39-26.4-2(4), 39-26-5(a).

<sup>4</sup> Petitioners explained how the Tesla Powerwall H6 together with the Sunrun inverter can be configured to ensure that the battery is charged only when there is power available from the solar panels, thus ensuring that the battery is only using electricity generated by the direct solar radiation. Pet. at 5.

eligibility to such Rhode Island Small Scale Solar+Storage systems, consistent with its affiliate's position in Massachusetts.<sup>5</sup> Thus, Petitioners asserted, the matter was ripe for resolution. A positive resolution would allow project developers to deploy paired systems and be assured they would qualify for net metering, their financing expectations would not be jeopardized and they would not face enforcement actions moving forward. Petitioners further maintained that the resolution of this issue in the affirmative will advance state renewable energy policy goals.<sup>6</sup>

In the course of this docket, several sets of data requests were propounded to Petitioners seeking additional information about the functionality of the solar+storage systems and how they were consistent with state net metering laws. Data requests were also propounded to National Grid.<sup>7</sup>

On October 17, 2017, the PUC caused a Notice of Filing and Deadline for Comments regarding the petition to be published in the Providence Journal. The deadline for filing written objections to or comments on the petition was November 16, 2017.<sup>8</sup> Comments were filed by the Division, the Office of Energy Resources (OER), National Grid, and the Northeast Clean Energy Council (NECEC). All comments favored a PUC ruling to clarify whether Rhode Island Solar+Storage Systems, with the conditions set forth in the petition, are eligible net metering systems.

OER and NECEC supported the petition including the parameters set forth by Petitioners. OER believed that the request to allow participation of solar+storage projects in the proposed limited scope was appropriate and reasonable to enable customers to realize the benefits of storage combined with renewable energy. OER suggested that the potential benefits of storage could

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<sup>5</sup> Pet. at 3-4.

<sup>6</sup> Pet. at 4-5, 7.

<sup>7</sup> The data responses may be accessed at: <http://www.ripuc.org/eventsactions/docket/4743page.html>.

<sup>8</sup> Notice; <http://www.ripuc.org/eventsactions/docket/4694-notice.pdf>.

include benefits to participating customers as well as non-participants through system-wide benefits. According to OER, approval of the petition would be consistent with State policy objectives.<sup>9</sup> NECEC indicated that approval of the petition was critical for reducing barriers to the development of beneficial solar+storage systems in Rhode Island. Reduction of such barriers, according to NECEC, would provide benefit to customers in Rhode Island and throughout New England.<sup>10</sup>

The Division, in its comments, supported the petition as furthering the goals of the net metering law, but proposed the additional condition that the Commission prohibit the battery storage system from being charged from the electric grid. Specifically, the Division suggested that the PUC approve the petition so long as “the battery storage charges only from the solar power generation system, and that grid-charging is expressly prohibited.”<sup>11</sup> The Division also raised several concerns for implementation, including inspections of installed systems.<sup>12</sup>

In its initial comments, National Grid supported a ruling by the PUC to clarify the question of whether Rhode Island Small Scale Solar+Storage is eligible for net metering. National Grid discussed some of its policy and technical concerns but stated that, generally, its concerns were mitigated under the limitations in the petition.<sup>13</sup> In its reply comments, filed after the Division’s comments, National Grid adopted all of the Division’s conditions and laid out a number of additional implementation factors.<sup>14</sup>

In its reply comments, Sunrun responded to many of the implementation issues raised by the Division and National Grid. Sunrun also indicated that determination of whether a system is

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<sup>9</sup> OER Comments.

<sup>10</sup> NECEC Comments at 1-2.

<sup>11</sup> Division Comments at 3-4.

<sup>12</sup> Division Comments at 4-5.

<sup>13</sup> National Grid Comments at 1-2.

<sup>14</sup> National Grid Reply Comments at 2-4.

properly configured is not complicated.<sup>15</sup> Tesla, in its reply comments, argued that an express prohibition on grid-charging is unnecessary and imprudent. Tesla expressed concern that an express prohibition on grid-charging is not technically practical given system response times for solar+storage systems. The amount of grid-charging was characterized as “inadvertent” and small.<sup>16</sup> Tesla explained that prohibiting grid-charging could impair the customer value proposition in some instances, such as in the case of systems deployed to provide back-up power in the event of a distribution system outage. In these instances, if the battery has been fully discharged during an outage, a customer may desire charging from the distribution grid in preparation for a future outage event. According to Tesla, such activity will not adversely impact net metering because the system size is limited by historic consumption. Over time, in the absence of time-of-use rates (eliminating the incentive to charge during low cost times and discharge during high cost times), the charging and discharging of the battery would mostly zero out.<sup>17</sup>

At an Open Meeting held on November 28, 2017, the PUC reviewed the docket and declared that Rhode Island Small Scale Solar+Storage, with the additional condition that the battery not export to the electric grid, qualifies as an eligible net metering system. Specifically, solar power generating systems no greater than 25 kW AC, where the battery is only charged from the solar power generation system, the host is not on time-of-use rates, and the battery component does not discharge to the electric distribution grid, fall within the definition of eligible net metering system. In making this declaration, the PUC highlights that, for purposes of R.I. Gen. Laws § 39-26.4-2(5), the solar+storage system capacity is equal to the inverter nameplate or capacity rating of the solar PV unit that it is associated with, up to 25 kW AC. Based on acceptance of Tesla’s

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<sup>15</sup> Sunrun Reply Comments at 1-2.

<sup>16</sup> Tesla Reply Comments at 4.

<sup>17</sup> Tesla Reply Comments at 4-5.

agreement of the requirement that the battery component not discharge to the electric grid, inclusion of the Division's express prohibition is unnecessary. Adding a battery to a solar photovoltaic system does not alter the size of the system.<sup>18</sup>

The Division and National Grid included several comments about implementation issues related to the distributed generation interconnection standards, net metering tariff, and oversight of these systems. The only issue before the PUC, however, was whether the proposed configuration falls within the definition of an eligible net metering system. The implementation issues raised by the Division and National Grid, albeit important, are not germane to this decision. The PUC expects, however, that National Grid will work expeditiously to review these applications.

The PUC finds it appropriate to open a new docket to address the net-metering eligibility and treatment of systems under different system configurations, use-cases, sizes, and rate structures. There are policy and ratemaking implications with net metering and storage under conditions different from those considered for this petition. A broad-based docket to review those policy and technical issues will allow for value-driven outcomes, particularly with the application of the Benefit-Cost Framework adopted by the PUC in Docket No. 4600 and as set forth in the related Guidance Document.<sup>19</sup>

The Net Metering chapter, R.I. Gen. Laws § 39-26.4-4, must be construed liberally in aid of its purpose. The purpose of the Net Metering Act is, in part, "to facilitate and promote installation of customer-sited, grid-connected generation of renewable energy [and] to support and

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<sup>18</sup> Petitioners' Response to PUC-1-3 and DPUC-1-5.

<sup>19</sup> Order No. 22851 (July 31, 2017); [http://www.ripuc.org/eventsactions/docket/4600-NGrid-Ord22851\\_7-31-17.pdf](http://www.ripuc.org/eventsactions/docket/4600-NGrid-Ord22851_7-31-17.pdf); Public Utilities Commission's Guidance on Goals, Principles and Values for Matters Involving The Narragansett Electric Company d/b/a National Grid; <http://www.ripuc.org/eventsactions/docket/4600A-GuidanceDocument-Final-Clean.pdf>.

encourage customer development of renewable generation systems.”<sup>20</sup> Finding that solar power generating systems paired with storage under the limited parameters meet the definition of eligible net metering system advances the stated purpose. Opening a docket to conduct a broader review of the storage issue in the context of net metering will allow further advancement of the State’s policy while protecting against unintended consequences that could result from a lack of deliberative process.

On November 30, 2017, Tesla filed a Motion to Reopen, seeking to have the PUC reconsider its imposition of the prohibition of discharging from the battery to the distribution grid. Tesla indicated that its good cause was the PUC had misunderstanding of Tesla’s Reply Comments. Tesla argued that in its Notice of Open Meeting, posted on November 21, 2017, the PUC misrepresented Tesla’s agreement to a prohibition on discharging from the battery storage to the electric grid. While Tesla did not deny agreeing to the prohibition, it contended that the wording of the Notice might have suggested that Tesla had invited the imposition of an express discharge limit as a fourth, or additional, condition of net metering eligibility. Tesla detailed its reasoning of why such a prohibition is unnecessary.

Sunrun filed supporting comments, reiterating its initial comments. NECEC also provided a letter of support for reopening and reversing the decision. National Grid did not oppose reopening, but requested that if the PUC did reopen the matter, it both limit reconsideration to the filings already in the docket and consider the process to certify, ensure, and enforce customers’ compliance with all interconnection, operating, and net metering eligibility restrictions.

On December 20, 2017, the PUC considered Tesla’s Motion to Reopen. Noting it was questionable whether Tesla met the legal standard for reopening, the PUC reasoned that, because

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<sup>20</sup> R.I. Gen. Laws § 39-26.4-1.

its rules have no provision for a Motion to Reconsider, the Motion to Reopen offered the only option for Tesla. The PUC indicated that its inclusion of the challenged prohibition was predicated solely and directly on Tesla's statement in its Reply Comments. In the Reply Comments, Tesla stated: "[f]or purposes of ensuring timely decision on the Petition, Tesla is agreeing to the requirement where the battery component does not discharge to the grid and only charges from the eligible net metering facility."<sup>21</sup>

Absent time-of-use rates, the batteries will likely be used as on-site backup storage for customer reliability. While the uses of these systems will surely evolve in the future, particularly if time-of-use rates are implemented, those benefits to both the customers and the distribution grid have not presently been monetized. Thus, no financial harm could currently result from inclusion of the prohibition in the decision. Indeed, Tesla did not allege that it would suffer any harm from the prohibition in the decision. To the extent Tesla argued that affirmation of the prohibition would be detrimental to Rhode Island's advancement of renewable energy, all of Tesla's arguments are premised on the existence of time-of-use technology and/or rates. These are all things that can, and will be addressed as part of the larger solar storage docket.

Despite the foregoing considerations, after a review of the record, the PUC is satisfied that Sunrun was correct in its assertion that no party other than Tesla proffered the now disputed condition that the battery component not discharged to the grid. Thus, the PUC reopened the docket to strike the condition.

It is hereby:

(22991) DECLARED:

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<sup>21</sup> Tesla Reply Comments at 1-2. The PUC considered this, and still considers this to be a clear indication of intent and believes the November 21, 2017 Notice of Open Meeting was accurate.



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 the definition of an eligible net metering system.

EFFECTIVE AT WARWICK, RHODE ISLAND ON DECEMBER 22, 2017 PURSUANT TO OPEN MEETING DECISIONS ON NOVEMBER 28, 2017 AND DECEMBER 20, 2017. WRITTEN ORDER FILED WITH THE SECRETARY OF STATE'S OFFICE ON DECEMBER 22, 2017.

PUBLIC UTILITIES COMMISSION



Handwritten signature of Margaret E. Curran in blue ink.

Margaret E. Curran, Chairperson

\*Marion S. Gold, Commissioner

Handwritten signature of Abigail Anthony in blue ink.

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.

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