

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Annual Local and Flexible Procurement Obligations for the 2019 and 2020 Compliance Years.

Rulemaking 17-09-020
(Filed September 28, 2017)

**COMMENTS OF THE INDEPENDENT ENERGY
PRODUCERS ASSOCIATION ON TRACK 3 PROPOSALS**

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The issues that the *Amended Scoping Memo and Ruling of Assigned Commissioner*, dated January 29, 2019, designated for consideration of Track 3 of this proceeding included, under the general heading of “Further Refinements to the Resource Adequacy Program,” revisions to the load forecast methodology and consideration of how storage and combined resources should be counted for Resource Adequacy (RA) credit. The Track 3 Proposal of Sunrun Inc., filed on March 4, 2019, touched on both of these issues and proposed a future in which behind-the-meter (BTM) residential solar and storage installations (solar + storage) would be aggregated to produce RA capacity that with appropriate compensation could be used to meet the RA procurement requirements of load-serving entities (LSEs).

Sunrun’s proposal deviates substantially from current arrangements for recognizing and transacting RA capacity and the existing programs to promote residential solar + storage. As a result, Sunrun’s proposal raises legal and practical questions. In these comments,

the Independent Energy Producers Association (IEP) raises some of those questions for the consideration of the Commission and other parties.

I. BACKGROUND

As IEP understands Sunrun's model, Sunrun proposes that the Commission should take steps to recognize the potential of aggregated BTM residential solar + storage facilities to provide RA capacity. Sunrun proposes that all dispatchable capacity of these facilities, and not just the capacity in excess of the capacity used to offset simultaneous load, would be counted and compensated as RA capacity and would be recognized for RA purposes.¹ The full capacity potential of BTM storage would be made available to the market. Sunrun also asks the Commission to provide clear guidance on "incrementality," in this case referring to the ability of a solar + storage facility that provides RA capacity to participate in other programs.² The Commission would also establish a qualifying capacity counting mechanism for solar + storage and prohibit jurisdictional LSEs from excluding BTM resources from solicitations conducted by the LSE.³

II. JURISDICTIONAL ISSUES AND RELATED CONCERNS

Sunrun's proposal seems to straddle the divide between state and federal jurisdiction. Sunrun's emphasis on BTM resources and distributed resources seems to contemplate that the issues Sunrun raises are subject to the Commission's jurisdiction. But because Sunrun proposes that the solar + storage facilities would sell RA capacity to LSEs and export capacity to the grid, Sunrun's proposal also touches on areas that are subject to federal jurisdiction, and specifically to the jurisdiction of the Federal Energy Regulatory Commission (FERC). For example, Sunrun advocates for removing the barriers to distributed energy

¹ Sunrun Track 3 Proposal, pp. 11-12.

² Sunrun Track 3 Proposal, p. 13.

³ Sunrun Track 3 Proposal, pp. 13-15.

resources participating in wholesale markets, an area where the jurisdiction of the FERC is clear. Moreover, Sunrun's overall goal is to increase the ability of aggregated solar + storage facilities to qualify for and sell RA capacity.

In some respects, Sunrun's proposal seems to build on the net surplus compensation program that the Commission has adopted, which in turn built on the net energy metering (NEM) program and tariff. It may be helpful to review the jurisdictional status of NEM, net surplus compensation, and similar programs to gain some insight into the jurisdictional and other issues raised by Sunrun's proposal.

A. NEM

The NEM program was able to avoid jurisdictional conflicts because FERC considered NEM to be a billing arrangement in which energy produced by the customer's eligible installation is netted against the customer's retail electricity purchases,⁴ rather than a physical export of energy to the grid for resale that could trigger FERC's jurisdiction over sales of electricity for resale. Thus, NEM transactions were not deemed to be wholesale sales that would fall under FERC's jurisdiction. By contrast, Sunrun's proposal contemplates exports of a facility's RA capacity, a product that is not consumed by the customers associated with the solar + storage facilities and thus is not susceptible to netting or treatment as a billing arrangement. Sunrun's proposal cannot take advantage of the jurisdictional exception that FERC applied to the NEM program.

B. Net Surplus Compensation

When the Commission initiated the net surplus compensation program in 2011, it acknowledged that FERC had determined that exports of net surplus energy to a utility by a NEM customer are wholesale sales subject to FERC's jurisdiction. The Commission avoided a

⁴ Decision (D.) 11-06-016, p. 7, citing FERC Order 2003-A, 106 FERC ¶61,220 (2004) at P 747.

potential jurisdictional conflict by declaring that it would implement the net surplus compensation program pursuant to the federal Public Utility Regulatory Policies Act (PURPA). To promote the development of cogeneration and small power generation facilities by independent developers, PURPA created an exemption from FERC's jurisdiction over wholesale sales of electricity for certain qualifying facilities (QFs).⁵ Each NEM customer electing net surplus compensation was required to notify the utility purchasing the excess energy that it was a QF.⁶

Applying the net surplus compensation solution to the solar + storage proposal raises jurisdictional questions, some of which are also raised in a current proceeding before FERC. That case, *NorthWestern Corporation* (EL18-195-000), is based on facts that are not directly comparable to Sunrun's proposal, but some of the questions raised by that case also apply to Sunrun's proposal. For example, does the addition of a storage element change the net capacity of the QF? The answer to that question could be significant for some net surplus compensation customers, because if the facility's capacity increases to greater than 1 MW, the customer would no longer meet the definition of "eligible customer-generator" of Public Utilities Code section 2787(b)(4)(A) and would not qualify for the streamlined interconnection procedures provided in Rule 21 of the electric utilities' tariffs.

While net surplus compensation applies only to energy produced in excess of the NEM customer's consumption, Sunrun seeks compensation for all of the storage component's discharge, including any quantity consumed by the customer. This seems to be a fundamental deviation from the existing model for NEM and net surplus compensation. In the existing

⁵ QFs include facilities of up to 80 MW that are fueled by solar energy or other renewable sources. 18 CFR 292.204.

⁶ D.11-06-016, pp. 9-11. Solar and wind QFs of less than 1 MW are not required to obtain certification of QF status from FERC.

model, NEM essentially provides for an exchange of electricity between the customer and the utility; the customer provides electricity to the utility when the output from the solar installation exceeds the customer's load (typically during the day) and the utility provides electricity to the customer when the solar output is less than the customer's demand (at night). The nature of this exchange makes it simple to see how FERC could view NEM as a billing arrangement. Net surplus compensation adds the twist that the customer will be compensated at rates equivalent to the utility's avoided cost (the PURPA standard) for solar production that exceeds the customer's demand over a period of time.

Sunrun's proposal adds a layer of complication to the NEM/net surplus compensation model. As IEP understands it, Sunrun's proposal would add a transaction between the utility and the customer—or more specifically the entity that aggregates the capacity from the individual solar + storage installations. The utility would buy RA capacity from the solar + storage aggregation, but the individual customer would still be able to offset its consumption (and effectively be compensated by the avoided retail rate) with the energy produced by the solar installation. But, as discussed below, RA capacity also includes the obligation to deliver energy to the grid when called on. If the customer is already receiving credit or net surplus compensation for all the energy produced by the solar installation, the additional obligation to provide the energy associated with RA capacity to the grid seems to raise issues of duplicate claims for the same energy or double payment.

It may be implicit in Sunrun's proposal, but the question about who owns or can claim the energy associated with the RA capacity requires complete clarity about the essential requirement that *the storage battery must be charged only with the energy produced by the solar installation, and never by energy from the grid.*

C. Demand Response

Sunrun's proposal is in part a reaction to the RA program's "narrow" focus on the Proxy Demand Response (PDR) program of the California Independent System Operator (CAISO), the "only programmatic mechanism for DERs to provide RA capacity."⁷ The PDR program has some key similarities to Sunrun's proposal. The PDR program allows for the aggregation of small increments of demand response for purposes of selling RA capacity to LSEs; Sunrun's proposal would aggregate small increments of residential solar + storage to sell RA capacity to LSEs.

Jurisdiction over the PDR model is unambiguous. In Order 745, FERC clearly reaffirmed its authority to "set the compensation level for demand response in organized wholesale energy markets."⁸

III. DETERMINATION OF NET QUALIFYING CAPACITY

The documents filed in the *NorthWestern Corporation* case raise another question. According to the developers of the QF projects that are the focus of that case, "Without making assumptions regarding the discharge schedule of the battery storage system, there is no single way to determine the MW value of a battery storage system."⁹ But RA capacity is based on the facility's net qualifying capacity, measured in MW, as determined by the CAISO using criteria established by the Commission. If there's no single way to determine the MW value of battery storage, how would the RA capacity of a solar + storage facility be measured? What assumption should be made about the discharge schedule of the numerous

⁷ Sunrun's Track 3 proposal, p. 2.

⁸ *Demand Response Compensation in Organized Wholesale Energy Markets*, 134 FERC ¶ 61,187, PP 112-115. Affirmed by *Federal Energy Regulatory Comm'n v. Electric Power Supply Ass'n*, 577 U.S. ____ (2016).

⁹ *Motion to Intervene and Answer of the Beaver Creek Wind Projects to the Motion for Revocation*, filed in FERC Docket EL18-195-000 et al. on Sept. 25, 2018, p. 13.

batteries used in discrete residential solar + storage facilities? Would the facility's net qualifying capacity be limited to the capacity of the solar component, or would the storage component add an increment of net qualifying capacity to the facility?

IV. INTERCONNECTION

Sunrun's proposal also creates some uncertainty about the interconnection process. Rule 21 provides that NEM resources and non-export generation facilities can connect under Rule 21 regardless of whether they connect to the utility's distribution or transmission system¹⁰ (in general, transmission-voltage facilities and interconnections to transmission-voltage lines are subject to FERC's jurisdiction). Because Sunrun specifically proposes to export RA capacity from the solar + storage facilities, it appears that the facilities would not be eligible for the Rule 21 interconnection process *unless* they qualify as NEM resources. Rule 21 further provides that applications for interconnections to the utility's distribution system for generating facilities that are subject to FERC's jurisdiction must be under the utility's FERC-approved Wholesale Distribution Access Tariff. The jurisdictional ambiguity described above extends to the interconnection process; the answer to the jurisdictional questions will determine the answers to the interconnection questions.

V. MUST OFFER OBLIGATIONS

If a solar + storage facility is selling RA capacity, it will also be subject to several requirements. Under the CAISO tariff, for example, RA resources are subject to a must-offer obligation (MOO) to offer their RA capacity into the CAISO's day-ahead market and to deliver energy if dispatched.¹¹ If the storage capacity is used for other purposes, as Sunrun requests, it might not be able to recharge and deliver the energy associated with the full amount of

¹⁰ E.g., PG&E's Rule 21.B.1.

¹¹ CAISO Tariff, § 40.6.1.

committed capacity if it is dispatched the following day. While aggregation of solar + storage resources would overcome variation among individual projects, a series of days with low solar production or high residential demand could leave the aggregated resource with insufficient discharge capability to meet its MOO. As discussed above, the MOO also raises questions about where the energy to meet the MOO would from if the customer is already compensated for 100% of the production from the solar installation. And who would be entitled to the market revenues resulting from the dispatch of the MOO energy? Again, it cannot be overemphasized that the storage facility must **never** be charged with energy from the grid.

VI. CONCLUSION

As IEP has shown in these comments, Sunrun's Track 3 proposal raises some significant jurisdictional and other issues that should be explored and understood before the Commission approves Sunrun's proposal. Compared to the many other issues in Track 3, resolution of Sunrun's proposal does not seem that critical, and the need for the Commission to act on Sunrun's proposal in Track 3 is not clear at this time.

Respectfully submitted March 22, 2019, at San Francisco, California.

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