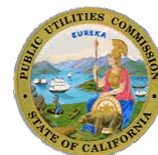


**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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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)

**JOINT COMMENTS OF ENGIE STORAGE, ENEL X NORTH AMERICA, INC.,
TESLA, INC., SUNRUN INC., CENTER FOR ENERGY EFFICIENCY AND
RENEWABLE TECHNOLOGIES, CALIFORNIA ENERGY STORAGE
ALLIANCE, CALIFORNIA EFFICIENCY + DEMAND MANAGEMENT
COUNCIL, AND VOTE SOLAR ON PROPOSED DECISION GRANTING
MOTION REGARDING QUALIFYING CAPACITY VALUE OF
HYBRID RESOURCES WITH MODIFICATIONS**

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December 20, 2019

Subject Matter Index

I.	SDG&E Qualifying Capacity Methodology Undervalues Hybrid Resources.	3
II.	Any Interim QC Methodology Adopted Should Also Apply to Hybrid Resources Located Behind the Utility Meter.....	5
III.	The Commission Should Adopt a Permanent QC Methodology for Hybrid Resources in the Near-Term.	6
IV.	Conclusion.....	7

Table of Authorities

Commission Decisions

D.19-11-016.....	2
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Commission Rules of Practice and Procedure

Rule 14.3.....	1
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Pursuant to Rule 14.3 of the California Public Utility Commission’s (“**Commission**”) Rules of Practice and Procedure, Engie Storage, Enel X North America, Inc., Tesla, Inc., Sunrun Inc., Center for Energy Efficiency and Renewable Technologies, California Energy Storage Alliance, California Efficiency + Demand Management Council, and Vote Solar (together, the “**Joint Parties**”)¹ hereby submit these comments on the *Proposed Decision Granting Motion Regarding Qualifying Capacity Value of Hybrid Resources with Modifications* in the above-referenced proceeding (“**PD**”).²

On September 27, 2019, the Joint Parties filed a motion in R.17-09-020³ and R.16-02-

¹ Joint Parties have consented to Sunrun Inc. filing these comments on their behalf.

² R.17-09-020, *Proposed Decision Granting Motion Regarding Qualifying Capacity Value of Hybrid Resources with Modifications* (November 26, 2019) (“Proposed Decision”).

³ R.17-09-020, *Joint Motion of Engie Storage, Enel X North America, Inc., Tesla, Inc., Sunrun Inc., Center for Energy Efficiency and Renewable Technologies, California Energy Storage Alliance, and Vote Solar to Establish a Schedule and Process for Determining the Capacity Value of Hybrid Resources* (September 27, 2019).

007⁴ requesting that the Commission both 1) establish a schedule and process for adopting a qualifying capacity (“**QC**”) methodology for hybrid resources operating both in front of and behind the utility meter, and 2) adopt an interim methodology that can be used in planning and contracting for the 3,300 MW procurement authorized in D.19-11-016, in the Commission’s Integrated Resource Plan (“**IRP**”) proceeding, R.16-02-007.⁵

On November 26, 2019, Administrative Law Judges Chiv and Allen issued the PD granting the version of the Joint Parties’ motion filed in this proceeding (“**Motion**”) with modifications. The PD, in sum, does the following: 1) adopts an interim QC methodology for storage hybrid resources proposed by San Diego Gas & Electric Company (“**SDG&E**”); 2) specifies that the methodology is applicable to hybrid resources located in front of the meter (“**IFOM**”), and not those interconnected behind the meter (“**BTM**”); and 3) denies the Joint Parties’ request for a timeline for establishing a QC methodology for hybrid resources, with reference to potentially developing a final QC for hybrid resources in the successor Resource Adequacy (“**RA**”) Rulemaking, R.19-11-009.

The Joint Parties thank the Commission for responding to the Motion and for establishing an interim QC methodology for hybrid resources so that parties can contract to fulfill IRP procurement requirements established pursuant to D.19-11-016. The PD recognizes the urgency of establishing the methodology given very near-term system reliability concerns while ensuring the continued development of clean and reliable sources of energy. However, the Joint Parties believe that the PD would benefit from further refinement. First, SDG&E’s methodology adopted by the Commission undervalues hybrid resources significantly. Second, it is neither

⁴ R.16-02-007, *Joint Motion of Enel X North America, Inc., Tesla, Inc., Sunrun Inc., Center for Energy Efficiency and Renewable Technologies, California Energy Storage Alliance, and Vote Solar to Establish a Schedule and Process for Determining the Capacity Value of Hybrid Resources* (September 27, 2019).

⁵ R.16-02-007, D.19-11-016, p. 3 (November 7, 2019).

unprecedented nor extraordinarily complicated for the interim methodology to apply to hybrid resources located BTM. Third, a permanent and durable methodology is needed in the near-term.

I. SDG&E Qualifying Capacity Methodology Undervalues Hybrid Resources.

The PD selects the QC methodology proposed by SDG&E on an interim basis, noting that the methodology proposed by Southern California Edison (“SCE”) may overvalue hybrid resources.⁶ In sum, the methodology proposed by SDG&E makes a distinction for hybrid resources that are “operationally restricted” in that the storage charges from the co-located generation system, and essentially limits the QC of such hybrid resources to the greater of the QC of the generator—either effective load carrying capacity (“ELCC”) of the non-dispatchable renewable resource or the QC of a dispatchable resource—or the QC of the storage resource.⁷ For hybrid resources that are co-located but operate such that the storage is not charged from the co-located generation, the Commission concludes that the two components need not be combined into a hybrid resource for QC purposes; instead, each resource can obtain an individual California Independent System Operator (“CAISO”) resource ID and receive individual QC values.⁸

The Joint Parties are concerned that the QC methodology that the PD proposes to adopt for so-called “operationally restricted” hybrid resources undervalues the capacity value of these resources by eliminating the capacity value of one of the paired technologies entirely. Limiting the capacity value of hybrid resources to a “greater of the two” approach, as the PD does, assumes that there is a significant capacity value that “operationally restricted” hybrid resources fail to provide. The Joint Parties contend that this is not true.

⁶ Proposed Decision, p. 8.

⁷ *Id.*, Ordering Paragraph 1.

⁸ *Id.*, p. 8.

First, using the example of a solar plus storage hybrid system wherein the storage charges from on-site solar, the hybrid system blends the individual and distinct attributes of the two systems to create a higher capacity value. The solar still operates during the daytime hours, either charging the on-site storage system or exporting energy to the wholesale market and thus the QC should be the same whether the storage charges directly from the paired solar system or not. The asset owner will charge the battery from the solar system when the market prices are lower, and will discharge to meet evening ramping capacity needs. The QC should reflect this capability.

Second, while the system may also provide services outside of its must offer obligation, such as intra-hour load following services and frequency regulation, the must offer obligation for the resource will require sufficient battery charge to deliver QC during availability assessment hours. The resource operator must meet those obligations regardless of the provision of other services and is incentivized by market prices to export during the evening ramp when prices are higher.

Third, given the increasing severity of the net load curve, or so-called “duck curve,” the Joint Parties assume that the Commission might be concerned with storage discharging during other periods of the day when it is not needed. The Joint Parties submit that this is highly unlikely, given the lack of economic incentive to do so. Thus, while the Joint Parties can appreciate the Commission’s desire to not overvalue resources, the logic underlying the selection of the methodology for “operationally restricted” resources is unclear and potentially discriminatory.

Finally, the PD acknowledges that “this approach may undervalue hybrid resources, and that the appropriate long-term QC value may fall somewhere between this value and SCE’s

proposed methodology.”⁹ The Joint Parties agree, continue to support SCE’s additive methodology, and urge the Commission to reconsider the selection of the interim methodology, especially because this is an interim methodology for a new resource class.

II. Any Interim QC Methodology Adopted Should Also Apply to Hybrid Resources Located Behind the Utility Meter.

The PD declines to adopt a QC value for hybrid resources located BTM, reasoning that doing so would be premature as it would entail “significant changes to the RA program and raise issues that have not been developed in this proceeding.”¹⁰ The PD further notes that “BTM resources currently receive RA credit only as demand response and may continue to do so for any combination of BTM batteries and traditional demand response. Other BTM resources are currently accounted for through adjustments to the load forecast.”¹¹

The Joint Parties acknowledge that changing the manner in which BTM resources count for RA purposes will require changes in how these resources are accounted for in forecasting to ensure that their RA contribution is counted only once. That said, the PD dismisses the issue entirely, without the necessary discussion or justification, thus declining to account for the actual reliability capacity value that these systems can and do provide. The Joint Parties contend that the changes that will be required are likely more surgical than substantial, and are not unprecedented.

In recent years, the Commission bifurcated demand response programs into those that are included in utility supply plans and thus receive QC value, and those that are imbedded in the forecast. A similar, though more granular approach can be used for BTM resources, and

⁹ *Id.*, p. 8.

¹⁰ *Id.*, p. 9.

¹¹ *Id.*

adopting such an approach will not require an overhaul of the RA program as the PD seems to suggest.

Further, the Joint Parties articulated actions by several agencies that are required before BTM resources can fully participate in the wholesale market in a workable fashion in their reply to comments on the Joint Parties' Motion.¹² The Joint Parties hereby incorporate those comments by reference. The Joint Parties appreciate that the Commission cannot effectuate all these changes itself, but urge the Commission to recognize that it must be proactive in addressing the elements of this effort under its control. The Commission can do so by applying the interim QC value to BTM resources, which will be one vital step in the process of developing a framework in which the true value of hybrid BTM resources is recognized. Thus, while further action—both at the Commission and at other agencies—will be necessary before BTM resources will be able to participate in the wholesale market, this does not preclude the Commission from assigning the interim methodology established in the PD to both IFOM and BTM resources now.

Individual members of the Joint Parties have commented on BTM issues—including but not limited to the issues covered by the Joint Parties' Motion and this PD—in R.19-11-009, and look forward to working with the Commission and stakeholders on that list of issues in the new proceeding.

III. The Commission Should Adopt a Permanent QC Methodology for Hybrid Resources in the Near-Term.

The PD denies the Joint Parties' request for a schedule for adopting a permanent QC methodology for hybrid resources and notes that:

[w]e intend to continue developing a permanent methodology for counting hybrid

¹² R.17-09-020, *Reply of Engie Storage, Enel X North America, Inc., Tesla, Inc., Sunrun Inc., Center for Energy Efficiency and Renewable Technologies, California Energy Storage Alliance, and Vote Solar to Responses to Joint Motion to Establish a Schedule and Process for Determining the Capacity Value of Hybrid Resources*, p. 3 (October 24, 2019).

resources in the successor RA proceeding, R.19-11-009. Additionally, we intend to evaluate a variety of QC methodologies, as well as those not previously discussed in this proceeding, such as exceedance, that will encourage energy dispatch at times necessary for grid reliability.¹³

The Joint Parties appreciate the Commission's focus on this issue in R.19-11-009 and again stress the importance of a permanent and durable methodology. To that end, we recommend that this PD clarify that the interim methodology apply for 2020 RA compliance and IRP deliveries in 2021. We will continue to comment on this issue in R.19-11-009.

IV. Conclusion.

The Joint Parties thank the Commission for proposing to adopt an interim QC methodology for hybrid resources, in recognition of the issues raised in the Motion. The Joint Parties also thank the Commission for recognizing that more work must be done in the successor proceeding to establish a durable permanent QC methodology for hybrids and consider significant changes to the RA program. The Joint Parties urge the Commission to adopt the recommendations offered herein and in Appendix A, which articulates several recommended changes to the Findings of Fact, Conclusions of Law, and Ordering Paragraphs of the PD.

Respectfully submitted December 20, 2019,

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¹³ Proposed Decision, pp. 9-10.

Appendix A

Revisions to the Proposed Findings of Fact

1. Establishing QC values is within the scope of issues appropriate for the RA proceeding.
2. Events following the issuance of D.19-06-026 warrant adoption of an interim QC methodology for hybrid resources.
3. SDG&E's definition of a hybrid resource is reasonable.
4. ~~SDG&E's alternative~~ SCE's proposal for hybrid resources with and without operational limitations is an appropriate, conservative interim approach to determining QC values.
- ~~5. It is premature to apply an interim QC methodology for hybrid resources to BTM resources.~~
5. For purposes of this decision, it is reasonable to define "interim" as applicable to 2020 RA compliance and IRP procurement for deliveries in 2021.
6. It is reasonable to apply the interim QC methodology for hybrid resources to both IFOM and BTM resources.

Revisions to the Proposed Conclusions of Law

1. An interim QC methodology for hybrid resources should be adopted.
2. SDG&E's definition of a hybrid resource should be adopted for purposes of an interim QC methodology.
3. For hybrid resources with and without operational limitations, ~~SDG&E's alternative~~ SCE's proposal should be adopted as an interim methodology.
4. For purposes of this decision, "interim" is defined as applicable to 2020 RA compliance and IRP procurement for deliveries in 2021.
~~4. The interim QC methodology for hybrid resources should apply only to in front of the meter hybrid resources.~~
5. The interim QC methodology for hybrid resources should apply to both IFOM and BTM resources.

Revisions to the Proposed ORDER

IT IS ORDERED that:

1. The following qualifying capacity methodology is adopted on an interim basis for both in front of the meter and behind the meter hybrid resources:

~~Where a hybrid resource has charging or other operational restrictions, t~~
The interim qualifying capacity value for hybrid resources shall be based on the sum of the
~~greater of either:~~ (i) the effective load carrying capacity-based qualifying capacity (QC) of the
intermittent resource or the QC of the dispatchable resource, whichever applies, and ~~or~~ (ii) the
QC of the co-located storage device.

2. For purposes of the interim qualifying capacity methodology, a “hybrid resource” is defined as a generating resource co-located with a storage project, having a single point of interconnection and represented by a single market resource ID.

3. The interim methodology established in this decision is applicable to 2020 RA compliance and IRP procurement for deliveries in 2021.

34. Rulemaking 17-09-020 remains open.