

**PUBLIC UTILITIES COMMISSION**505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298**FILED**11/26/19
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November 26, 2019

Agenda ID # 17977
Ratesetting

TO PARTIES OF RECORD IN RULEMAKING 17-09-020:

This is the proposed decision of Administrative Law Judge (ALJ) Chiv and ALJ Allen. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's January 16, 2020 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure, with the modification that comments shall be filed by December 20, 2019 and reply comments shall be filed by January 2, 2020.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, *ex parte* communications are prohibited pursuant to Rule 8.2(c)(4)(B).

/s/ ANNE E. SIMONAnne E. Simon
Chief Administrative Law Judge

AES:ilz

Decision **PROPOSED DECISION OF ALJ CHIV and ALJ ALLEN**

(Mailed 11/26/2019)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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

**PROPOSED DECISION GRANTING MOTION REGARDING QUALIFYING
CAPACITY VALUE OF HYBRID RESOURCES WITH MODIFICATIONS**

Summary

This decision grants the Joint Parties’ motion to establish a schedule and process for determining the qualifying capacity value of hybrid resources, with modifications.

This proceeding remains open.

1. Background

On September 27, 2019, a joint motion was filed by Engie Storage, Enel X, Tesla, Inc., Sunrun Inc., Center for Energy Efficiency and Renewable Technologies, California Energy Storage Alliance, and Vote Solar (collectively, the Joint Parties). The motion requests a schedule and process for determining

the qualifying capacity (QC) value of hybrid resources located in front of the utility meter (IFOM) and behind the utility meter (BTM).

On October 14, 2019, responses to the motion were filed by Alliance for Retail Energy Markets (AREM), California Community Choice Association (CalCCA), California Environmental Justice Alliance, Sierra Club, and Union of Concerned Scientists (the Joint Environmental Parties), Large-scale Solar Association (LSA), Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE). Replies to responses were filed on October 24, 2019 by PG&E and the Joint Parties.

2. Summary of the Motion

In Decision (D.) 19-06-026, the Commission stated:

We decline to adopt a combined QC value for a dispatchable battery combined with a dispatchable generating resource, or a dispatchable battery combined with a renewable resource at this time. The Commission appreciates the potential benefits of “plus solar” resources and the financial considerations that would encourage development of combined battery and renewable resources. However, a combined QC value raises many questions that we are unable to answer at this time.¹

The Commission “encourage[d] parties to discuss potential counting methodologies and modeling parameters in the ELCC working group.”²

In their motion, the Joint Parties highlight the following events that have occurred since the issuance of D.19-06-026:

1. The California Independent System Operator (CAISO) launched a stakeholder initiative to develop market participation rules for hybrid resources. The Joint Parties

¹ D.19-06-026 at 37.

² *Id.*

- state that the initiative issued a paper stating that “41 percent of the capacity in the CAISO interconnection queue is comprised of hybrid resources, at 35,341 megawatts (MW) of a total of 85,643 MW of generating projects in queue, suggesting that there is significant demand for such hybrid resources that warrants a fair and accurate capacity count.”³
2. A Proposed Decision in the Integrated Resource Planning (IRP) proceeding, Rulemaking (R.) 16-02-007, directed Load Serving Entities (LSEs) to procure 2,500 MW of incremental system Resource Adequacy (RA) capacity in SCE’s Transmission Access Charge (TAC) area to come online between August 2021 and 2023. The Proposed Decision also recommended extension of retirement deadlines for natural gas power plants that use once-through-cooling technology.⁴
 3. The IRP Proposed Decision also stated that “hybrid generation and storage projects will fare well in competitive solicitations for system reliability resources and should be strongly considered.”⁵ The Joint Parties add that “[w]ithout a clear QC methodology, hybrid resources may be undervalued for their capacity contributions and thus undervalued in competitive solicitations.”⁶
 4. The Commission’s Energy Division issued a State of the Resource Adequacy Market Report on September 3, 2019, which highlighted supply deficiencies in RA showings.

³ Joint Motion to Establish a Schedule and Process for Determining the Capacity Value of Hybrid Resources (Joint Motion) at 3 (citing CAISO’s Hybrid Resources Issue Paper, July 18, 2019, at 3, available at: <http://www.caiso.com/Documents/IssuePaper-HybridResources.pdf>).

⁴ R.16-02-007, Proposed Decision of September 12, 2019.

⁵ *Id.* at 38.

⁶ Joint Motion at 3.

The Joint Parties state that “[t]hese deficiencies could be met with hybrid resources.”⁷

5. Workshops required by D.19-06-026 were held on September 5 and 6, 2019. The Joint Parties state that “a clear path to establishing a hybrid resource QC did not come out of those workshops,” despite the stated urgency.⁸

Based on these events, the Joint Parties request that the Commission:

(1) establish a timeline and process for determining the QC value of hybrid resources, and (2) commit to adopting an interim methodology for determining that value before the end of 2019.

3. Discussion

3.1. Adoption in the Resource Adequacy Proceeding

The Joint Parties submitted their joint motion in both the RA proceeding and the IRP proceeding for resolution. AReM, PG&E, and SCE support the resolution of this motion in the RA proceeding, stating generally that the RA proceeding is historically where QC values have been set and that this issue is within the scope of Track 3 of this proceeding.⁹ LSA states that issuing interim NQC values is within the scope of the IRP proceeding.¹⁰

The Commission agrees that QC values have historically been addressed in the RA proceeding and that this issue is within the scope of issues appropriate for this proceeding. Therefore, this motion will be addressed in the RA proceeding.

⁷ *Id.* at 4.

⁸ *Id.*

⁹ AReM Response at 2, PG&E Response at 4, SCE Response at 2.

¹⁰ LSA Response at 2.

3.2. Interim Methodology

3.2.1. Parties' Positions

The Joint Parties recommend the adoption of SCE's "additive approach" as an interim methodology. In Track 3 of this proceeding, SCE proposed counting methodologies for various configurations of hybrid resources comprised of energy storage combined with a generating resource. SCE's proposal at issue in this decision is summarized as follows:

1. For resources pairing dispatchable storage with a dispatchable generator, the QC value should be the sum of the QC values of each element of the hybrid resource.
2. For resources pairing dispatchable storage with a non-dispatchable renewable generator, the QC value of the hybrid resource should be the sum of the effective load carrying capacity (ELCC) of the renewable resource and the maximum power output (Pmax) of the storage under a four-hour discharge.

Several parties support the motion, including AReM, CalCCA, the Joint Environmental Parties, and LSA.¹¹ SCE generally agrees with the motion but opposes developing a QC methodology for BTM resources as premature, citing jurisdictional issues with the Federal Energy Regulatory Commission (FERC) that cannot be unilaterally addressed in this proceeding and that the Commission does not allow export of power from BTM resources.¹² SCE states that if a permanent QC methodology for hybrid resources cannot be adopted by year end, SCE supports an interim methodology for counting IFOM hybrid resources.

¹¹ AReM Response at 2, CalCCA Response at 2, Joint Environmental Parties Response at 3, LSA Response at 2.

¹² SCE Response at 2.

SCE notes that it continues to refine its proposal based on questions raised in the workshop as to whether the proposed methodology overvalues a hybrid resource when the battery has charging restrictions, such as facilities receiving the Investment Tax Credit (ITC) that requires the battery to charge primarily from the paired renewable facility.

SDG&E generally supports the motion but offers an alternative interim approach for hybrid resources with operational restrictions, where the QC value of the hybrid resource should be “the larger of (i) the effective load carrying capability (ELCC)-based QC of the intermittent resource or the QC of the dispatchable resources, whichever applies, and (ii) the QC of the co-located storage device.”¹³ SDG&E states that “[t]his option has the advantage of certainty since the grid operator (the CAISO) has certainty that the hybrid resource can deliver *at least* the amount of the QC.”¹⁴ For hybrid resources without operational limitations, SDG&E supports SCE’s proposed methodology.

PG&E opposes the motion, stating that the development of a QC methodology should be coordinated with the CAISO’s stakeholder initiative, that D.19-11-016 does not require a progress report on LSEs’ efforts until February 15, 2020, and that there is insufficient record for adopting an interim solution. PG&E also states that because the scoped tracks in this proceeding have nearly concluded, a schedule and process for developing a QC methodology should be set in the successor RA proceeding.¹⁵

¹³ SDG&E Response at 7.

¹⁴ *Id.*

¹⁵ PG&E Response at 6.

In PG&E's reply, PG&E supports SCE's position that it is premature to determine a QC for exporting BTM resources.¹⁶ In the Joint Parties' reply, they clarify that their request is for "the QC value to apply to BTM resources participating in the market under any participation model, including the Distributed Energy Resource Provider (DERP) model."¹⁷ The Joint Parties disagree that the Commission must wait for FERC to assign a QC value to BTM hybrid resources.

3.2.2. Discussion

In D.19-06-026, the Commission declined to adopt a QC methodology for combined resources, stating that there were numerous unanswered questions. While we believe that unresolved issues remain in developing a long-term QC methodology for hybrid resources, we agree with the Joint Parties that events following the issuance of D.19-06-026 warrant consideration of an interim methodology. In particular, in D.19-11-016 of the IRP proceeding, the Commission adopted a requirement for all LSEs to procure 3,300 MW of incremental system RA capacity, a more expansive requirement than was originally in the proposed decision cited by the Joint Parties. In consideration of D.19-11-016, the Commission concludes that it is necessary to adopt an interim QC methodology for hybrid resources at this time to ensure that hybrid resources are appropriately valued in competitive solicitations.

We next consider the definition of a "hybrid resource" for purposes of this interim QC methodology. SDG&E defines a "hybrid resource" as a "generating resource co-located with a storage project, having a single point of

¹⁶ PG&E Reply to Responses at 8.

¹⁷ Joint Parties Reply to Responses at 3.

interconnection and represented by a single market resource ID.”¹⁸ SDG&E notes that this configuration “is used to qualify storage for Investment Tax Credits (ITC) since eligibility requires that a substantial portion of the storage device’s charging energy comes from renewable resources.”¹⁹ The Commission finds SDG&E’s definition to be reasonable and adopts it here.

Next, we evaluate the appropriate interim QC methodology for a hybrid resource. Where neither resource component has operational restrictions, we see no reason for the two components to be combined into a hybrid resource for QC purposes. Even if both resources are on a single interconnect, each resource can obtain an individual CAISO resource ID and thus receive individual QC values. Therefore, it is unnecessary to adopt a QC methodology for hybrid resources without operational restrictions.

For hybrid resources with operational restrictions, the Commission agrees with SDG&E and SCE that the sum of the QC values of the individual components may overstate the value of the hybrid resource and that it is unclear how the capacity would be “derated.” It is likely that many of these hybrid resources will come online in the near future in an effort to take advantage of ITCs. SDG&E’s alternative proposal for hybrid resources with operational limitations presents a reasonable, conservative approach to determining the QC value. We recognize 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. However, without any operational data or other method of determining how a battery should be “derated” at this

¹⁸ SDG&E Response at 4.

¹⁹ *Id.*

time, we find that SDG&E's approach is a prudent interim solution. Accordingly, where a hybrid resource has a charging or other operational restriction, the QC value shall be based on the greater of either: (i) the ELCC-based QC of the intermittent resource or the QC of the dispatchable resource, whichever applies, or (ii) the QC of the co-located storage device.

Lastly, the Commission agrees with SCE and PG&E that it is premature to apply this QC methodology for hybrid resources to BTM resources. 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. Changing the treatment of BTM resources would involve significant changes to the RA program and raise issues that have not been developed in this proceeding. Accordingly, the QC methodology for hybrid resources adopted in this decision shall apply only to in front of the meter hybrid resources.

3.3. Process for Establishing QC Values

The Joint Parties request a schedule and process for establishing a QC methodology for hybrid resources "so that developers of hybrid resources can plan and prepare to participate in resource solicitations, and so that LSEs can know if and when they will be able to procure hybrid resources and include those resources in their supply plans."²⁰

The Commission finds that the interim methodology adopted in this decision is sufficient at this time for procurement of hybrid resources to meet IRP requirements. We intend to continue developing a permanent methodology

²⁰ Joint Motion at 3.

for counting hybrid 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.

4. Comments on Proposed Decision

The proposed decision of Administrative Law Judges (ALJ) Chiv and Allen in this matter was mailed to parties in accordance with Section 311 of the Public Utilities Code. Comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure with the modification that opening comments must be filed by December 20, 2019 and reply comments must be filed by January 2, 2020. Comments were filed on _____, and reply comments were filed on _____ by _____.

5. Assignment of Proceeding

Liane M. Randolph is the assigned Commissioner and Debbie Chiv and Peter V. Allen are the assigned Administrative Law Judges in this proceeding.

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 proposal for hybrid resources with operational limitations is an appropriate, conservative approach to determining QC values.
5. It is premature to apply an interim QC methodology for hybrid resources to BTM resources.

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 operational limitations, SDG&E's alternative proposal should be adopted as an interim methodology.
4. The interim QC methodology for hybrid resources should apply only to in front of the meter hybrid resources.

O R D E R

IT IS ORDERED that:

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

Where a hybrid resource has charging or other operational restrictions, the qualifying capacity value shall be based on 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, 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. Rulemaking 17-09-020 remains open.

This order is effective today.

Dated _____, at San Francisco, California.