

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

Order Instituting Rulemaking to Oversee
the Resource Adequacy Program, Consider
Program Refinements, and Establish
Forward Resource Adequacy Procurement
Obligations.

Rulemaking 19-11-009
(Filed November 7, 2019)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON THE
RESOURCE ADEQUACY TRACK 2 PROPOSALS AND WORKING GROUP
REPORTS**

Alex J. Morris
Executive Director

Jin Noh
Senior Policy Manager

CALIFORNIA ENERGY STORAGE ALLIANCE
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (510) 665-7811
Email: cesa_regulatory@storagealliance.org

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”) hereby submits these comments on the Resource Adequacy (“RA”) Track 2 proposals and Working Group reports, which were filed on February 21, 2020 and March 11, 2020, respectively, pursuant to the *Assigned Commissioner’s Scoping Memo and Ruling* (“Scoping Memo”) issued by Assigned Commissioner Liane M. Randolph on January 22, 2020 and to the *Administrative Law Judge’s Ruling Modifying Track 2 Schedule* (“Track 2 Schedule Ruling”), issued by Administrative Law Judge (“ALJ”) Debbie Chiv on February 28, 2020..

I. INTRODUCTION.

CESA appreciates the detailed collaboration and thought leadership among the stakeholders in each of the RA Working Groups. Many of CESA’s ideas, proposals, and recommendations on the issues covered in the various working groups are included in our

previously filed comments on February 21, 2020,¹ so these comments are intended to supplement those comments as well as to provide some responses to the working group reports.

II. HYBRID RESOURCES WORKING GROUP REPORT.

A. The definitions for hybrid and co-located resource variations should be adopted but modified to cover the scope of projects that are not physically limited and can optimize for economic value and deliver further benefits.

The Hybrid Counting Working Group report aims to align the definitions of hybrid and co-located resources between the California Independent System Operator (“CAISO”) and the Commission, which has been the subject of confusion and uncertainty since the issuance of Decision (“D.”) 20-01-004. The Commission should adopt the definitions as proposed, which is supported by working group participants, including the California Independent System Operator (“CAISO”)² – an indication of significant alignment among all parties involved.

At the same time, CESA also recommends that the Commission modify the definition of “Non-ITC Limited Resources” to include resources that claim the investment tax credit (“ITC”) but do not commit to a charging restriction from the on-site generation resource (*e.g.*, via physical recloser, battery controller). Some hybrid and co-located resources may seek to balance its RA must-offer obligations (“MOO”) with ITC economic incentives, with the resource operator bearing the risks of reduced ITC capture in order to meet RA obligations and to realize other revenue streams (*e.g.*, ancillary services, additional energy revenues). Contrary to the assertions by San Diego Gas and Electric Company (“SDG&E”),³ this is not to suggest that the RA MOO is optional or secondary but that prescriptive or *ex ante* de-rates may not fully reflect value that can be realized

¹ *Resource Adequacy Track 2 Proposals of the California Energy Storage Alliance* filed on February 21, 2020 in R.19-11-009. <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M329/K148/329148295.PDF>

² Hybrid Counting Working Group Report at 10

³ *Ibid* at 13.

from resources that can provide additional grid-service value that outweigh the benefits of ITC capture while still adhering to RA MOOs and RA availability incentive mechanism (“RAAIM”) penalties otherwise. Many hybrid or co-located resources may seek a QC value based on an *ex ante* charging restriction in order to not risk ITC benefits, but there are other hybrid or co-located resource configurations that could optimize around the right balance of grid and on-site charging to enable it to meet RA obligations and deliver additional grid-service value, where trade-offs are made with the ITC economic incentives (not with its reliability obligations).

B. While SCE’s proposal represents a viable consensus methodology to address the 100% ITC-limited case for co-located resources, the additive methodology should be extended to 100% ITC-limited case for hybrid resources and further follow-up working groups are needed to address the other identified use cases.

CESA supports the proposal from Southern California Edison Company (“SCE”) shared and discussed in the Hybrid Counting Working Group. Unless otherwise modified, SCE’s proposal addresses a majority of the intended operations of co-located resources,⁴ which will likely seek to claim 100% of the ITC in the immediate term until the ITC ultimately steps down and phases out. CESA is party to a joint filing along with SCE and Center for Energy Efficiency and Renewable Technology (“CEERT”) expressing our support in this regard.

However, SCE’s proposal may need to be modified to account for and affirm that, after the five-year ITC recapture period, charging restrictions no longer apply, and the QC value of the battery should no longer be limited (*i.e.*, de-rated) to the amount of energy it can be expected to charge from the co-located renewable resource. In other words, an additive methodology with no de-rating but subject to the maximum capacity at the point of interconnection could apply for co-

⁴ *Ibid* at 7.

located, post-ITC resources (*i.e.*, falling under the co-located non-ITC limited resource category) that do not commit to some *ex ante* charging restriction.

Furthermore, CESA recommends extending a similar additive methodology for 100% ITC-limited hybrid resources (*i.e.*, those with a single resource ID). While MOOs for hybrid resources need to be worked out and may not be able to simply rely on that of the individual components, these issues can be worked out in the CAISO's Hybrid Resources Initiative. In the interim, the Commission can support hybrid resources by establishing a ("QC") methodology for 100% ITC-limited hybrid resources, which can guide CAISO stakeholder discussions.

Finally, as presented in the working group, including Track 2 proposals from CESA, there are a number of other use cases (*e.g.*, partial on-site charging) that were identified as areas where more discussion was needed. Track 3 of this proceeding should immediately take up this issue in further working group processes.

C. The appropriateness and details of the exceedance methodology needs to be further explored and vetted in Track 3 prior to use for paired resources.

CESA is not principally opposed to the exceedance methodology, but further discussion is needed to determine the appropriateness of the exceedance methodology for all hybrid and co-located resources. The working group report outlines a list of outstanding and important questions that must be addressed before adopting such a methodology, considering the applicability and accuracy of the exceedance methodology relies on the details and thresholds underlying the study.⁵ Such an investigation should occur in Track 3 of this proceeding.

⁵ *Ibid* at 14-15.

D. The capacity counting methodology for behind-the-meter hybrid resources must be addressed in Track 3.

The working group had limited discussion on the QC methodology for behind-the-meter (“BTM”) hybrid resources and participants were not ready to agree to an affirmation or statement that the QC methodology for in-front-of-the-meter (“IFOM”) hybrid resources could be similarly extended, noting a number of questions raised that still need to be addressed.⁶ Given similar resource characteristics and operations, CESA believes that such an affirmation or statement as a baseline starting point is not unreasonable; however, given that participants identified a need for further discussion, BTM hybrid resource QC methodology issues should be immediately scoped into Track 3 of this proceeding. These issues have been raised multiple times in the RA-related proceedings but have yet to get focused attention in a proceeding track or working group process. With substantial BTM storage resources being deployed with paired solar resources, especially to provide near-term resiliency, the Commission should prioritize this issue in the RA proceeding to support greater utilization of these resources aligned with grid capacity needs.

III. EFFECTIVE LOAD CARRYING CAPABILITY WORKING GROUP REPORT.

A. The Commission must recognize all the factors that impact the ELCC value of energy storage resources.

In our Track 2 proposal, CESA argued that the application of an effective load carrying capability (“ELCC”) methodology for energy storage is unwarranted at this time and any consideration of change should be addressed in Track 3 and set clear and reasonable vintaging rules. In addition, CESA participated in the ELCC Working Group to ensure that the potential application of the ELCC methodology to energy storage recognizes the various factors that would impact the resulting capacity values.

⁶ *Ibid* at 17-18.

However, the ELCC Working Group Report notes that, similar to wind and solar resources, the capacity value of limited-duration storage declines under increased penetrations.⁷ CESA notes that this statement is not entirely correct, as it has been shown that the capacity value of storage assets is dependent on three factors: penetration of storage, availability of renewable energy, and duration of the storage assets.⁸ Accurate understanding and interpretation of ELCC results is crucial, as it has been used to incorporate step-down ELCC curves in the Integrated Resource Planning (“IRP”) proceeding and could unduly reduce the capacity value of energy storage if said methodology is applied in the RA context.

At the February 13, 2020 working group meeting, CESA explained the complementary reliability benefits of solar generation and energy storage.⁹ Simply put, the ELCC is a measure of coincidence between supply and demand of electricity, which is appropriate to evaluate the capacity of variable energy resources (“VERs”), but it must be acknowledged that, under a VER-heavy future, the ELCC of dispatchable energy-limited resources such as energy storage would be largely dependent on the coincidence between VER output and expected load. To this end, the Commission should consider all the factors that impact the ELCC value for storage resources. Not only will this be important for RA purposes, but it will also be an important consideration for the Commission’s assessment and accurate/nuanced interpretation of the ELCC study results directed in the RPS proceeding (R.18-07-003).

⁷ ELCC WG Report, at A-9.

⁸ See NREL, *The Potential for Battery Energy Storage to Provide Peaking Capacity in the United States*, available at <https://www.nrel.gov/docs/fy19osti/74184.pdf>

⁹ See ELCC WG Report, at A-11.

IV. MAXIMUM CUMULATIVE CAPACITY BUCKETS PROPOSAL.

A. The Commission should delay any discussion of MCC buckets to Track 3 of the present RA proceeding.

While modifications to the maximum cumulative capacity (“MCC”) bucket structure were scoped into Track 2 of this proceeding as a means to provide further guidance into how LSEs fulfill their RA requirements, the merits and use of MCC buckets could be revised in Track 3 of R.19-11-009, leading to regulatory turnover and confusion. Instead, discussion on this matter and the underlying issues driving the Staff Proposal could be better and more comprehensively addressed in Track 3. As reference, many of our views and perspectives of the MCC Staff Proposal were included in our Track 2 proposal submitted on February 21, 2020 and are again reflected in a joint filing submitted concurrently with the Joint DER Parties.

B. The Commission’s MCC proposal does not appear to support California’s long-term resource investment needs.

To reiterate our Track 2 proposal, CESA continues to oppose the implementation of Option 4b as described by Energy Division in their MCC proposal,¹⁰ which expresses a preference for resources that are “available” during all hours but runs contrary to the state’s vision for decarbonization and forecasted needs for enabling technologies, many of which include energy-limited resources.

First, the Commission would be sending mixed signals by requiring LSEs to fulfill at least 56.1% of their RA requirements with Category 4 resources that are able to run 24 hours per day¹¹ on the one hand, and by directing the procurement of significant amounts of intermittent renewable generation and energy storage resources in the IRP proceeding to comply with California’s

¹⁰ ALJ Ruling on Energy Division’s Proposal at 8-9.

¹¹ See MCC Proposal, at 8 through 9.

environmental targets. Short-term reliability planning and long-term policy investments must be aligned.

Second, CESA is concerned with staff’s clarification of “availability” referring to an asset’s “ability to operate” – a contrast to the historical interpretation of availability as a requirement to participate within the applicable markets. It is unclear to CESA on whether this clarification toward physical availability (as opposed to market availability) is grounded in past precedent or Commission decisions, and whether this requires further record and policy development to make such a “clarification” that amounts to a significant change in the meaning of RA resources and how the MCC has been applied. As such, CESA is not convinced that this is a mere “clarification” but something that warrants greater discussion and policy development in Track 3.

C. The Commission’s proposed caps could impact liquidity in RA procurement.

Energy Division’s proposal also sets caps at the LSE level, which could lead to an outcome where several LSEs could potentially have “headroom” under a specific MCC resource category (*e.g.*, Category DR or 1) but not be able to transfer them to other LSEs seeking to procure a greater portion of RA resources for that category. Collectively, LSE-specific caps could result in system-wide under-procurement of resources in availability-limited resources that supports reliability and advances the state’s decarbonization goals. While CESA continues to oppose caps and seeks to defer the MCC staff proposal to Track 3, more optimized Category DR or 1 resource procurement may occur under system-wide caps, with the potential for cost and benefit allocation and attribution done *ex post* using existing Commission mechanisms.

V. **DEMAND RESPONSE WORKING GROUP REPORT.**

A. Demand response resources should rely on performance and testing requirements for capacity valuation, but minimum energy requirements should be deferred at this time.

CESA generally supports the use of *ex ante* testing requirements to set the QC and a combination of *ex post* performance and testing requirements to validate and inform QC values going forward for demand response (“DR”) resources, which provide a measured means of establishing and assessing capacity value. While still a pilot, the Demand Response Auction Mechanism (“DRAM”), as modified in Decision (“D.”) 19-07-009 and D.19-12-040, provides a reasonable starting point for a stakeholder-vetted framework and process to determining the QC and demonstrated capacity (“DC”) of DR resources. Storage-backed DR, in particular, is uniquely positioned to provide such measured and more frequent dispatch that will support more accurate QC and DC determinations, yet the right balance must be struck to not make the testing requirements too onerous, especially if such frequent testing is not needed. As such, the proposal made by the California Efficiency and Demand Management Council (“Council”) represents a reasonable proposal for DR capacity counting and processes that should be adopted, which is in large part in line with the DRAM requirements and benchmarked to the performance and testing requirements of other balancing authority areas.¹² In principle, CESA also supports the idea from Pacific Gas and Electric Company (“PG&E”) to reduce testing requirements upon demonstration of reliable performance.¹³

Over time, as the DRAM reports and evaluation come in, the Commission can evaluate the impact of the current testing and dispatch requirements as well as the minimum energy

¹² DR Working Group Report Attachment 1 at 6-7.

¹³ *Ibid* at 10.

requirements in order to determine if such rules should be tightened or expanded, as proposed by Energy Division's Proposal B (*i.e.*, add energy dispatch requirements) and PG&E (*i.e.*, four consecutive hour test during availability assessment hours). However, at this time, these proposals do not seem necessary for DR resources.

Importantly though, even as it is applied to DRAM as a pilot, the minimum energy requirement should be more deeply investigated and assessed within Track 3 of this proceeding before potentially broadening it to all DR resources, considering Track 3 will address energy and hourly capacity needs from the RA Program. Otherwise, CESA fears that DR resources will face energy requirements that no other RA resources are subject to at this time.

B. How behind-the-meter storage is accounted in the load forecast and ensured against double counting should be investigated in Track 3 of this proceeding.

In the limited discussion around load-modifying DR resources, the working group identified the need to avoid double counting BTM storage as a load-modifying resource and a supply-side resource.¹⁴ CESA agrees that BTM storage should not be double counted for its load impacts, whether as a load-modifying or supply-side resource. BTM energy storage was only recently incorporated into the California Energy Commission ("CEC") load forecasts, meaning that this is still a new frontier on how storage should be forecasted and how they can be counted in planning processes. With significant amounts of BTM storage expected to be deployed in the coming years, CESA believes that it is priority issue to address how BTM storage can support reliability and provide capacity, which will involve better understanding forecasting methodologies and developing an incrementality and load adjustment framework to allow BTM storage participation as an RA-reducing load-modifying DR resource or supply-side RA resource.

¹⁴ *Ibid* at 16.

There are challenges and uncertainties associated with BTM storage deployment forecasts, as well as on the assumed operations of storage dispatch, which as CESA currently understands it, may be limited under current forecasting approaches. In participating in the Demand Analysis Working Group (“DAWG”), CESA has learned that the Self-Generation Incentive Program (“SGIP”) deployment reports have been used to develop simple linear projections for deployment, while SGIP evaluation reports have been used to inform operations. However, as evidenced by recent deployment trends of slowed deployment in the commercial and industrial sector and rapid deployment in the residential sector, such forecasts are not accurate and do not recognize these differences. Meanwhile, storage dispatch may not be easy to assume using past evaluation reports for storage operating under a previous regime of SGIP rules and older rates, or even to model dispatch given the unique characteristics of various customer loads. As such, in addition to investigating storage forecasting methods, the Commission, in collaboration with the CEC, should consider how load forecasting adjustment approaches could be used to enable RA from BTM resources while avoiding double counting issues.

C. The ELCC methodology cannot capture the differentiated impact of a range of demand response resources.

For many of the same reasons cited above on the ELCC working group report as well as in our previous Track 2 proposals, CESA agrees with other parties that the ELCC methodology should not be used for DR resources.¹⁵ Rather than directly assessing, measuring, and compensating performance, the ELCC methodology would likely apply the same capacity value for all DR resources regardless of different technology characteristics and historical performance – a similar limitation that currently applies to solar and wind resources due to modeling

¹⁵ *Ibid* at 22-24.

complexities and intensity. CESA recognizes the CAISO's concern on energy sufficiency issues but Track 3 would be better positioned to more comprehensively examine this issue.

VII. CONCLUSION.

CESA appreciates the opportunity to submit these comments and looks forward to working with the Commission and stakeholders in this proceeding.

Respectfully submitted,



Alex J. Morris
Executive Director
CALIFORNIA ENERGY STORAGE ALLIANCE

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