

**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  
PROPOSED DECISION ADOPTING LOCAL CAPACITY OBLIGATIONS FOR 2022-  
2024, FLEXIBLE CAPACITY OBLIGATIONS FOR 2022, AND REFINEMENTS TO  
THE RESOURCE ADEQUACY PROGRAM**

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June 10, 2021

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THE RESOURCE ADEQUACY PROGRAM**

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 *Proposed Decision Adopting Local Capacity Obligations For 2022-2024, Flexible Capacity Obligations For 2022, And Refinements to The Resource Adequacy Program* (“PD”), issued by Administrative Law Judge (“ALJ”) Chiv on May 21, 2021.

**I. INTRODUCTION.**

Recent developments in the state’s electrical grid as well as California’s energy and environmental goals have required the Commission to consider refinements to its resource adequacy (“RA”) framework. The evolving resource mix has presented new challenges that require careful consideration of the rules in place and the incentives they create. In the PD, in addition to adopting the cyclical Local Capacity Requirements (“LCR”) for 2022-2024 as well as the Flexible Capacity Requirement (“FCR”) for 2022, the Commission addresses potential near-term refinements to the RA program, as scoped in Tracks 3B.1 and 4 in Rulemaking (“R.”) 19-11-009. Given the relevance of the RA Program in the maintenance of reliability and the attainment of decarbonization targets, the inclusion of near-term reforms is timely and appropriate.

CESA agrees with several of the determinations included in the PD. Particularly, we are pleased with the Commission’s correct determination that Category 2 of the Maximum Cumulative Capacity (“MCC”) bucket framework be retained. While the PD makes some progress in adapting

the RA program to a system increasingly reliant in non-conventional generation, certain topics require further consideration. It is unfortunate that, in its current state, the PD does little to provide certainty to market participants regarding the reliability value of long-duration energy storage (“LDES”) and behind-the-meter (“BTM”) hybrid and standalone energy storage exports. Moreover, some of the modifications contained in the PD merit clarification, specifically those related to the schedule of the RA proceeding and the application of the new minimum number of availability hours of MCC Category 1 assets. Thus, CESA’s comments can be summarized as follows:

- The Commission should prioritize refining the reliability value of LDES resources.
- The Commission should clarify the minimum number of availability hours in February for MCC Category 1 resources.
- The export constraint needs to be lifted and export capacity must be recognized and compensated to support Saturday availability.
- A stakeholder process should be launched immediately to work on the cross-cutting issues to establish a capacity value for BTM hybrid and storage capacity.
- Effective Load Carrying Capability (“ELCC”) approaches are not appropriate for firm and dispatchable BTM energy storage capacity.
- The Commission should reconsider its rejection of Center for Energy Efficiency and Renewable Technologies’ (“CEERT”) hybrid proposal.
- The Commission should provide clarity to parties regarding the timeline and process for evaluating Track 3B.2 proposals.

## **II. THE COMMISSION SHOULD PRIORITIZE REFINING THE RELIABILITY VALUE OF LDES RESOURCES.**

As part of the refinements considered in Track 3B.1, Energy Division presented a proposal to eliminate Category 2 from the MCC buckets framework. The PD correctly notes that Energy Division justified this recommendation solely by noting its potential to reduce the complexity of

the MCC buckets and because said Category is seldom used today.<sup>1</sup> In discussing this proposal, the PD highlighted that there is insufficient justification to remove this Category, and that its removal would be inconsistent with considerations in the Integrated Resource Planning (“IRP”) proceeding.<sup>2</sup>

CESA agrees with the Commission’s conclusion that there is little justification to eliminate Category 2, particularly in light of recent proposed procurement orders in the IRP proceeding.<sup>3</sup> To align RA and IRP incentives, requirements, and policies, CESA supports the PD maintaining the MCC Category 2 bucket, even as few resources have counted in this category to date. That should change with the upcoming procurement order, if approved with the long lead-time and LDES resource procurement requirement intact. While the preservation of Category 2 is the right move given current developments in the IRP proceeding, further coordination between these two proceedings is warranted to minimize the risk of confusion or inaction with regards to the procurement of LDES.

On this note, it is unfortunate that the PD also does not accurately represent CESA’s Track 3B.1 MCC proposal, which sought to clarify the RA value of LDES resources and would make it so that the Commission assign qualifying capacity (“QC”) values based on the maximum power output a resource can sustain over the period defined in its corresponding MCC bucket. When addressing CESA’s proposal, the PD notes that although net qualifying capacity (“NQC”) values for energy storage are based on four-hour dispatch, a four-hour storage resource may be shown in Category 2 on RA filings for half of its NQC value.<sup>4</sup> This clarification provided by the Commission does not address the issue of NQC for LDES, as it does not recognize incremental value from extended durations.

Considering the scope and development of the IRP proceeding, the Commission must prioritize reforms that recognize the incremental energy duration of energy storage resources, above and beyond the minimum four-hour capability requirement. Whether through CESA’s proposal or through the ongoing development and evaluation of the Track 3B.2 proposals, the

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<sup>1</sup> PD at 22.

<sup>2</sup> PD at 23.

<sup>3</sup> *Proposed Decision Requiring Procurement to Address Mid-Term Reliability (2023-2026)* issued on May 21, 2021 in R.20-05-003 at OP 2.

<sup>4</sup> PD at 26.

Commission must prioritize these reforms as they will be essential to signal the value of developing these assets to buyers and sellers of RA alike. As such, CESA requests the modification of the PD in a manner that explicitly states when and how the Commission will address the RA counting rules for storage resources with durations above four hours.

**III. THE COMMISSION SHOULD CLARIFY THE MINIMUM NUMBER OF AVAILABILITY HOURS IN FEBRUARY FOR CATEGORY 1 RESOURCES.**

In comments related to Track 3B.1 and 4 proposals, CESA noted that the modification proposed by Energy Division regarding an increase of the minimum number of availability hours for MCC Category 1 resources was reasonable, provided the Commission did not implement a bid cap proposal. As such, CESA generally finds the modification to increase the availability hours for MCC Category 1 resources to 100 hours per month between 4-9 pm and applied year-round to be reasonable.<sup>5</sup> However, CESA also observed that this availability hours requirement could be difficult to fulfill during months with fewer than 30 calendar days. Thus, CESA recommends that the Commission should clarify this availability for months like February when four-hour availability Monday through Saturday would total 96 hours. To still ensure reliability but align the proposed availability hours to the number of days in a month like February, CESA recommends modifying proposed Ordering Paragraph (“OP”) 8 to read as follows:

“The minimum availability of Category 1 resources of the Maximum Cumulative Capacity Buckets shall increase to 100 hours per month between 4:00 p.m. – 9:00 p.m. and apply ~~year-round to all months except February.~~ **In February, the minimum availability of Category 1 resources of the Maximum Cumulative Capacity Buckets shall increase to 96 hours per month between 4:00 p.m. – 9:00 p.m.** This is effective for the 2022 Resource Adequacy compliance year.”

**IV. THE EXPORT CONSTRAINT NEEDS TO BE LIFTED AND EXPORT CAPACITY MUST BE RECOGNIZED AND COMPENSATED TO SUPPORT SATURDAY AVAILABILITY.**

CESA does not oppose the PD’s determination to require Saturday availability as part of MCC changes in light of the August and September 2020 heat wave events.<sup>6</sup> These modifications are reasonable to ensure reliability during critical periods; however, these changes should be

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<sup>5</sup> PD at 22.

<sup>6</sup> PD at 21.

applied on a *going-forward basis* in order to avoid disruptive impacts to existing demand response (“DR”) contracts that have already been executed. Otherwise, many contracted DR resources, including many that are storage backed, face the risk of derated capacity and/or contract amendments to reflect the minimum load-reduction capacity that could be delivered consistently across any given RA month from Monday through Saturday. Therefore, CESA recommends that existing DR contracts be grandfathered from this new Saturday availability requirement.

Since energy storage resources are capable of being used and useful on a daily basis, CESA is generally not concerned with the addition of Saturday availability, except that behind-the-meter (“BTM”) energy storage resources are “load limited” under current DR constructs and do not have a QC value for their export capabilities. Since exports are not valued and compensated when energy storage resources operate as Proxy Demand Resources (“PDRs”), the Saturday availability requirement will have material impacts on BTM energy storage resources, particularly for commercial and industrial (“C&I”) customers, whose loads are typically lower on the weekends, thereby limiting the RA capacity that could be delivered to customer load.

Consequently, BTM energy storage resources will need to reduce their estimated QC to be consistent across the Monday through Saturday days of the month, with the QC being reduced to the minimal amount of load reduction capacity that can be delivered consistently across the RA month. To elaborate, if a commercial customer has 5-MW load reduction potential on weekdays that can be delivered by a BTM energy storage system and just 2-MW load reduction potential on weekends given the C&I customer’s load profile, the new Saturday availability requirement for this storage-backed DR resource would reduce the QC of the resource to 2 MW for Monday through Saturday, thus stranding up to 5 MW of capacity or more that could otherwise be delivered Monday through Saturday *if* the storage resource’s export capabilities are allowed, valued, and compensated. In line with the intent of the MCC change, BTM energy storage resources could by all means meet the Saturday availability requirement on a going-forward basis; however, with the Commission deferring on establishing a QC value for BTM energy storage and their exports, this MCC modification will only serve to reduce the capacity availability from this class of resources when the Commission is scouring for as much incremental capacity as possible as part of Proposed and Final Decisions in R.20-11-003 and R.20-05-003 for the 2021-2026 period. To this end, the Commission should initiate a working group process as soon as possible to address this BTM energy storage export capacity issue, as explained further in the next section of our comments.

V. **A STAKEHOLDER PROCESS SHOULD BE LAUNCHED IMMEDIATELY TO WORK ON THE CROSS-CUTTING ISSUES TO ESTABLISH A CAPACITY VALUE FOR BEHIND-THE-METER HYBRID AND STORAGE CAPACITY.**

CESA is strongly disappointed with the Commission declining to adopt a QC value for BTM energy storage exports, finding that the product to not yet be defined, a number of underlying issues that must be addressed first (*e.g.*, deliverability, incrementality), and BTM and in-front-of-the-meter (“IFOM”) resources do not have the same requirements or behavior.<sup>7</sup> While understanding the additional work needed to further develop the market-informed pathway, CESA was hoping that the Commission could take the first step in addressing a key barrier to the market-integrated pathway by establishing a base QC value for BTM energy storage exports.

Given the cross-cutting nature of BTM energy storage capacity issues and the wide range of proposals considered in Tracks 3-4, the RA proceeding could not feasibly tackle every single issue or barrier with a single workshop and through party proposals without focused coordination and collaboration from a wide range of stakeholders, including the CAISO, Commission, California Energy Commission (“CEC”), distribution utilities, load-serving entities (“LSEs”) and market participants. Some of the issues around deliverability, incrementality, metering/visibility, and/or load forecasting could not have been addressed in the RA proceeding; however, well within the scope of the RA proceeding is the QC methodology. With this issue being deferred, the Commission has not made any progress in more than two years.

While acknowledging the other issues that must be addressed as cited in the PD, CESA believes that the Commission has sufficient basis to establish a base QC value for BTM hybrid and energy storage resources equivalent to that of its IFOM counterparts. Similar to how IFOM resources have a methodology in place to establish a QC value, adjusted to a net qualifying capacity (“NQC”) value upon deliverability assessments, the same approach could be used for BTM resources to establish a base QC value in R.19-11-009 that is then adjusted based on determinations made by the Commission in other proceedings or initiatives around deliverability, incrementality, etc. For example, the NQC for BTM energy storage exports could thus capture adjustments to reflect how some or all of its base QC value is deliverable to the bulk grid, or the portion of its QC that is already captured in planning or operational forecasts or reflected in other forms of compensation.

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<sup>7</sup> PD at 54.

CESA thus urges the Commission to reconsider and adopt a base QC value for BTM energy storage resources that mirror that of IFOM resources. Alternatively, if further record development and discussion is needed, CESA recommends an immediate working group process be launched to bring a consensus proposal back to the Commission in R.19-11-009 for adoption at the same time or prior to the adoption of Track 3B.2 long-term reform proposals. Specifically, CESA encourages the Commission to mirror the success of the Hybrid QC Working Group model from earlier in the proceeding (Track 2) that involved stakeholder-chaired working groups (*e.g.*, one industry chair, one LSE chair). This structure encouraged broad participation from different groups, which is necessary to tackle cross-cutting issues such as those involving BTM energy storage capacity, as cited in this PD and as laid out in D.20-06-031.

CESA also supports the comments and recommendations reflected in the Joint Solar/Storage Parties' comments being submitted concurrently with these comments.

**VI. ELCC APPROACHES ARE NOT APPROPRIATE FOR FIRM AND DISPATCHABLE BTM ENERGY STORAGE CAPACITY.**

CESA agrees with the Commission declining to adopt an ELCC-derived QC methodology for DR resources at this time. Among the uncertainties and unanswered questions cited in the PD<sup>8</sup> include how an ELCC methodology would value storage-backed DR capacity, which is distinct from traditional DR capacity in the sense that BTM energy storage is not variable or intermittent. While customer loads offset by BTM energy storage discharge can be weather sensitive and/or variable, the capacity that can be offered and delivered from BTM energy storage is directly measurable and eliminates the “variable” element of load reduction capability if its discharge is no longer load limited – *i.e.*, exports are allowed, recognized, valued, and compensated. As a result, in the CEC stakeholder process being requested in the PD,<sup>9</sup> CESA recommends that the scope include whether and how BTM energy storage capacity should be differentiated from traditional DR or in investor-owned utility (“IOU”) DR program portfolios regarding the appropriateness of ELCC approaches to determine DR QC values.

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<sup>8</sup> PD at 36-37.

<sup>9</sup> PD at 35.



**VII. THE COMMISSION SHOULD RECONSIDER ITS REJECTION OF CEERT'S HYBRID PROPOSAL.**

In the PD, the Commission addresses a proposal put forth by the CEERT to modify the QC methodology applied to hybrid resources. CEERT's proposal seeks to recognize the differences in output between AC- and DC-coupled hybrid resources and argues that the DC-coupled configuration avoids losses from "clipped energy" for generation in excess of the inverter AC rating.<sup>10</sup> Thus, it would be reasonable to use the DC rating of the solar array to calculate the capacity of the solar component of the hybrid, rather than its nameplate capacity.

In discussing this proposal, the Commission noted that, while valuable and worthy of further development, it cannot be applied at this time due to a lack of clarity as to whether the information necessary is readily available.<sup>11</sup> CESA understands the Commission requires a clear path for implementation prior to recommending the adoption of a modification. In this case, it is possible that information regarding AC/DC coupling could be made available. As CESA understands it, AC- and DC-coupled hybrid resources have different metering configurations in line with CAISO rules.<sup>12</sup> In this context, the inclusion of this information to the CAISO Master File should be explored, as it could be a clerical modification that would ease implementation of CEERT's proposal, furthering the contributions of hybrid assets to grid reliability.

**VIII. THE COMMISSION SHOULD PROVIDE CLARITY TO PARTIES REGARDING THE TIMELINE AND PROCESS FOR EVALUATING TRACK 3B.2 PROPOSALS.**

Notably missing from the PD is any consideration or directional guidance on any of the Track 3B.2 proposals regarding long-term reforms to the RA Program. In previous comments and proposals, CESA recommended that the Commission create a roadmap or pathway to transition from the adopted Track 3B.1 proposal(s) to the adopted or shortlisted Track 3B.2 reforms, such that near-term and longer-term reforms are coordinated and include certain common elements that minimize the disruptive impacts of adopting a near-term proposal that does not reasonably transition to or is substantially different from the longer-term restructuring of the RA Program.

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<sup>10</sup> PD at 47.

<sup>11</sup> PD at 49.

<sup>12</sup> See CAISO, Hybrid Resources Initiative: Metering & Telemetry Technical Workgroup, at 20-27. Available at <http://www.caiso.com/InitiativeDocuments/Presentation-HybridResourcesMeteringWorkingGroup-Aug27-2019.pdf>.

Largely, the modifications adopted in the PD are generally incremental and minor in nature, such that our concerns about disruptive changes are moot.

At the same time, CESA views the long-term RA reforms as being necessary to support the transition of the RA Program to one that reflects evolving grid needs, including sufficient energy needed to charge the significant amounts of energy storage identified in IRP and SB 100 models, energy characteristics of the types of resources needed to support reliability such as LDES, and use limitations as appropriate for the capability of different resources. With significant amounts of procurement being proposed in the IRP, timely and intelligent RA reforms are needed to provide greater guidance to LSEs in their solicitations and to provide regulatory certainty for developers who build and finance new-build projects. These reforms should not be rushed, but it should also not be delayed. Steady progress is needed in order to align new resource procurement with both decarbonization goals and reliability objectives.

As a result, CESA reiterates our recommendation that the Commission should provide guidance on the timeline and process for evaluating Track 3B.2 proposals. Whether addressed directly in this PD at hand or through an Amended Scoping Memo and Ruling, the Commission should establish follow-up processes to shortlist and refine the various Track 3B.2 proposals and outline guiding principles as evaluation criteria. Our proposed guiding principles for Commission consideration include the following: (1) provide a reasonable degree of regulatory certainty to all market participants while ensuring the safe and reliable operation of the grid; (2) consider the compatibility with existing planning goals, policies, and programs; and (3) strike a balance between granularity and precision of meeting RA needs with a reasonable level of simplicity and transactability.

**IX. CONCLUSION.**

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

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jin Noh', written in a cursive style.

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**CALIFORNIA ENERGY STORAGE ALLIANCE**

Date: June 10, 2021