

**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)

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON  
TRACK 3B.1 AND 4 PROPOSALS**

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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 reply comments on the Track 3B.1 and 4 Proposals, submitted by the Commission Energy Division staff and parties on January 28, 2021. These comments are being timely filed and served pursuant to the schedule established in *Assigned Commissioner’s Amended Track 3B and Track 4 Scoping Memo and Ruling* (“Scoping Memo”) issued on December 11, 2020 by Assigned Commissioner Liane M. Randolph.

**I. INTRODUCTION.**

As various short- and long-term reforms are being considered, CESA reiterates our recommendation that three core principles be applied. First, the Resource Adequacy (“RA”) structure should provide a reasonable degree of regulatory certainty to all market participants while ensuring the safe and reliable operation of the grid. Second, the RA structure must be compatible with existing planning goals, policies, and programs. Finally, the Commission must strike a balance between granularity and precision of meeting RA needs with a reasonable level of simplicity and transactability. With these in mind, CESA appreciates the opportunity to provide these responses to opening comments by parties on several Track 3B.1 and 4 proposals. Our responses can be summarized as follows:

- The elimination of Category 2 from the Maximum Cumulative Capacity (“MCC”) bucket framework will hinder the urgent procurement being considered by the Commission.
- Linking a storage asset’s qualifying capacity (“QC”) value to the MCC category for which it is shown will provide contract certainty in the near-term.
- A modification of the California Independent System Operator (“CAISO”) Tariff could be required under any Track 3.B 2 proposal, highlighting the need for near-term coordination.
- Establishing minimum dispatch requirements, disallowing the incorporation of startup costs, and placing a maximum bid price for demand response (“DR”) resources could result in inefficient dispatch and increased costs.
- The Commission should adopt the Center for Energy Efficiency and Renewable Technologies’ (“CEERT”) hybrid qualifying capacity (“QC”) proposal.
- Energy Division’s (“ED”) proposal to modify the effective load carrying capability (“ELCC”) value of incremental solar resources should not be adopted.
- After establishing the QC value for behind-the-meter (“BTM”) energy storage and hybrid resources, the Commission should launch a Multiple-Use Applications (“MUA”) proceeding to address all cross-cutting issues.

**II. THE ELIMINATION OF CATEGORY 2 FROM THE MAXIMUM CUMULATIVE CAPACITY BUCKET FRAMEWORK WILL HINDER THE URGENT PROCUREMENT BEING CONSIDERED BY THE COMMISSION.**

In opening comments, CESA explained that Category 2 should be maintained because the fact that this bucket is “rarely used” is due to the lack of a capacity counting methodology for 8-hour energy storage resources.<sup>1</sup> Moreover, the elimination of Category 2 would have adverse effects on current and planned goals and directives considered by the Commission. Specifically, eliminating Category 2 sends conflicting market signals considering the *Administrative Law*

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<sup>1</sup> CESA comments at 5.

*Judge’s Ruling Seeking Feedback on Mid-Term Reliability Analysis and Proposed Procurement Requirements* (“Mid-Reliability Ruling”) issued on February 22, 2021 in R.20-05-003, which directs the minimum procurement of 1 GW of energy storage with durations equal to or above eight hours.<sup>2</sup> The Commission should note that several parties highlighted these concerns in their own comments,<sup>3</sup> supporting the case against the proposed elimination of Category 2.

Notably, California Community Choice Association (“CalCCA”) argued that the proposal to eliminate Category 2 would create substantial ambiguity for long-duration energy storage (“LDES”) procurement being proposed in the Mid-Reliability Ruling.<sup>4</sup> The California Environmental Justice Alliance (“CEJA”) and Sierra Club go further, remarking that the current MCC framework was designed for a fossil-based grid and that it does not facilitate the development of portfolios based on renewable and energy-limited assets.<sup>5</sup> Given these design deficiencies, CEJA and Sierra Club note that the elimination of Category 2 could artificially lock California into retaining gas capacity.<sup>6</sup> CESA completely agrees with these arguments, as they have guided our proposal to incorporate increasing ramping needs seen in systems with a high penetration of VERs within the MCC structure. As a result, CESA urges the Commission to consider coordination required between the IRP and RA proceedings as well and reject ED’s proposal to eliminate Category 2.

### **III. LINKING A STORAGE ASSET’S QUALIFYING CAPACITY VALUE TO THE MAXIMUM CUMULATIVE CAPACITY CATEGORY FOR WHICH IT IS SHOWN WILL PROVIDE CONTRACT CERTAINTY IN THE NEAR TERM.**

CESA recommended a series of modifications to the MCC structure in our Revised Track 3B.1 Proposal, including one that would determine a storage asset’s NQC value based on the maximum power output that a resource can sustain over the period defined in its corresponding MCC bucket.<sup>7</sup> This modification is reasonable as it balances the need to value the incremental reliability provided by LDES while ensuring the contract certainty needed to guarantee the timely

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<sup>2</sup> *Ibid*, at 20.

<sup>3</sup> *See, e.g.*, CAISO comments at 2-3.

<sup>4</sup> CalCCA Track 3B.1 and 4 comments at 21-22.

<sup>5</sup> CEJA and Sierra Club comments at 3.

<sup>6</sup> *Ibid*.

<sup>7</sup> *Revised Resource Adequacy Track 3B.1 Proposals of the California Energy Storage Alliance* filed on January 28, 2021 in R.19-11-009 at 4.

interconnection of the thousands of MW of four-hour storage assets currently in the queue.<sup>8</sup> Given the current uncertainty regarding the future RA structure and the fact that near- and mid-term reliability procurement directives highlight the need for storage assets with different operating characteristics within the next decade and well into 2045, this component of CESA’s Track 3B.1 proposal serves as a bridge between the status quo structure and an RA program based on longer-term reforms proposed by either CalCCA and Southern California Edison (“SCE”) (together, “the Joint Parties”), or Pacific Gas & Electric (“PG&E”).

In response to CESA’s proposal, San Diego Gas & Electric (“SDG&E”) argued that this change is not necessary as a scheduling coordinator (“SC”) can request that the qualifying capacity (“QC”) of a resource be less than the value based on the minimum four-hour requirement.<sup>9</sup> In essence, SDG&E argues that since a four-hour resource could simply be linearly derated and counted for in Category 2 at half its NQC, for example, the modification proposed by CESA is unnecessary.<sup>10</sup> CESA respectfully disagrees with this conclusion.

First, one of the purposes of this element of our proposal is to address the current lack of a valuation mechanism for the reliability benefits associated with procuring energy storage with durations above four hours. The fact that four-hour storage can be linearly derated to count towards other categories does not address this issue. This modification would provide clear signals to both sellers and buyer of RA that resources with longer durations are needed. Sellers get clarity regarding their potential revenues and fact that will be able compete in a level playing field when buyers conduct cost-benefit calculations. Buyers get certainty that investing in LDES resources now is viable and valuable, aligning with various mid- and long-term planning studies.<sup>11</sup>

This initial step to incorporate the value of energy attributes could also be accomplished by applying a methodology similar to the one proposed by the Large-scale Solar Association, Vote Solar, and the Solar Energy Industries Association (collectively, “Joint Solar Parties”). In this proposal, the Joint Solar Parties put forth a QC methodology based on two metrics: (1) the MWh of stored energy; and (2) the minimum-to-maximum MW range over which the MWh of stored

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<sup>8</sup> *Ibid*, at 10-11.

<sup>9</sup> SDG&E Track 3B.1 comments at 12.

<sup>10</sup> *Ibid* at 13.

<sup>11</sup> See Mid-Reliability Ruling *and* California Energy Commission (“CEC”) *et al*, “Draft 2021 SB 100 Joint Agency Report”, December 2020. Available at <https://efiling.energy.ca.gov/getdocument.aspx?tn=235848>

energy can be discharged.<sup>12</sup> Under this framework, a storage unit that has 200 MWh of storage and a discharge capacity ranging from 20 MW to 100 MW can provide 100 MW of RA capacity for a 2-hour period, 50 MW with a 4-hour duration, 25 MW for 8 hours, or 20 MW for as long as 10 hours.<sup>13</sup> CESA believes this modification to the current four-hour rule recognizes the value of LDES, retains the value of four-hour resources, and provides near-term certainty for procurement, provided Category 2 is maintained in the MCC framework. The sole drawback of this modification, as opposed to CESA's Track 3B.1 proposal, is that it is not able to internalize the willingness of a resource to cycle more than once per day. Nevertheless, this proposal enhances the conversation around near-term reforms that can balance the need for market signals related to future needs, and the preservation of a degree of contract stability. As a result, CESA recommends the Commission closely consider the use of the Joint Solar Parties' proposed storage QC methodology.

**IV. A MODIFICATION TO THE CAISO TARIFF COULD BE REQUIRED UNDER ANY TRACK 3B.2 PROPOSAL, HIGHLIGHTING THE NEED FOR NEAR-TERM COORDINATION.**

One of the modifications to the MCC structure in our Revised Track 3B.1 Proposal consisted of linking a resource's MOO to the specific MCC bucket for which it is shown.<sup>14</sup> To accomplish this, CESA recommended the Commission collaborate with the CAISO to identify a methodology to develop said MOOs.<sup>15</sup> This proposal could reasonably address the temporal concerns raised regarding the Joint Parties' proposal,<sup>16</sup> and it could ease the transition to a structure such as the one proposed by PG&E in its slice-of-day proposal.<sup>17</sup>

The CAISO offered comments on this element of CESA's proposal, arguing that this modification should not be adopted since the MOO is a CAISO tariff-defined concept requiring

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<sup>12</sup> Joint Solar Parties Track 3B.1 and 4 comments at 5.

<sup>13</sup> *Ibid.*

<sup>14</sup> *Revised Resource Adequacy Track 3B.1 Proposals of the California Energy Storage Alliance* filed on January 28, 2021 in R.19-11-009 at 15.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Southern California Edison Company (U 338-E) and California Community Choice Association's Second Revised Track 3B.2 Proposal* filed on February 26, 2021 in R.19-11-009 at 7.

<sup>17</sup> *Second Revised Track 3B.2 Proposals of Pacific Gas and Electric Company (U 39 E)* filed on February 26, 2021 in R.19-11-009 at A1-27.

shown RA capacity to offer into the CAISO market.<sup>18</sup> Moreover, CAISO offered clarifications regarding the interactions between the MOOs and the RA Availability Incentive Mechanism (“RAAIM”). Indeed, any material modification to the MOOs would necessitate a revision of the CAISO Tariff. While this would present a challenge for CAISO staff and stakeholders, it is necessary to consider the benefits of commencing this conversation when evaluating near- and long-term reforms concurrently. As noted above, both the Joint Parties’ and PG&E’s proposals could merit a modification of the MOOs, among other elements of the current RA program. Thus, CESA’s proposal should be read as a means to commence coordination and minimize modifications in accordance with the long-term restructuring of the program. As a result, CESA urges the Commission to consider the merits of CESA’s proposal in a cohesive manner, incorporating its potential streamlining of the transition to Track 3B.2 reforms.

V. **ESTABLISHING MINIMUM DISPATCH REQUIREMENTS, DISALLOWING THE INCORPORATION OF STARTUP COSTS, AND PLACING A MAXIMUM BID PRICE FOR DEMAND RESPONSE RESOURCES COULD RESULT IN INEFFICIENT DISPATCH AND INCREASED COSTS.**

SCE offered comments arguing against the adoption of ED’s Track 4 MCC proposal to adopt minimum dispatch requirements, disallow the incorporation of startup costs, and place maximum bid prices to DR resources. Regarding minimum dispatch requirements, SCE argued that this proposal may result in increased costs to end-users and would be premature given recent modifications to the Demand Response Auction Mechanism (“DRAM”).<sup>19</sup> CESA echoes these arguments and advises against the adoption of this proposal.

On the subject of disallowing the incorporation of startup costs for proxy demand response (“PDR”) resources, SCE warned against this recommendation as it could result in erroneous and inefficient dispatches related to the CAISO’s residual unit commitment (“RUC”) process.<sup>20</sup> In this context, CESA appreciates SCE’s remarks on how the RUC process incorrectly treats PDR resources with a minimum power output of zero (*i.e.*,  $P_{min} = 0$ ) as a zero-cost option. Given this glitch in the RUC process, SCE concludes the ED’s recommendation on startup costs should not

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<sup>18</sup> CAISO Track 3B.1 comments at 4.

<sup>19</sup> SCE, “Southern California Edison Company’s (U 338-E) Comments on track 3B.1, 3B.2, and 4 Proposals”, filed under this proceeding on March 12, 2021, at 23-24.

<sup>20</sup> *Ibid*, at 25.

be adopted. CESA agrees with the argument presented by SCE, as it represents potential for erroneous outcomes that could increase costs. Moreover, even if the aforementioned RUC glitch were resolved, a disallowance of startup costs would generally increase the risks of inefficient resource commitment and eventual dispatch. Disallowing these costs erases the competitive advantage of resources with minimal or no startup costs. Hence, the CESA recommends the Commission does not adopt this proposal.

Finally, on the establishment of a maximum bid price for DR, SCE argued against ED's proposal noting its 2019 rejection and its lack of stakeholder vetting.<sup>21</sup> CESA echoes these concerns, particularly considering the lack of formal analysis on how to institute the proposed maximum bid price across a heterogenous resource class of PDR resources and their underlying customer composition and technologies. Thus, CESA recommends the Commission not adopt ED's proposal on this matter.

**VI. ENERGY DIVISION'S PROPOSAL TO MODIFY THE EFFECTIVE LOAD CARRYING CAPABILITY VALUE OF INCREMENTAL SOLAR RESOURCES SHOULD NOT BE ADOPTED.**

CESA expressed general support for a zero marginal ELCC for new solar contracts if said modification was accompanied with the necessary vintaging provisions.<sup>22</sup> CESA based this assessment on the current and potential future RA structure and our narrow focus on how this would incentivize procurement against standalone solar projects. However, the Joint Solar Parties make valid arguments that this could result in incorrectly accounting for the value of hybrid solar-plus-storage projects that will be procured by many load-serving entities ("LSEs").<sup>23</sup> The Joint Solar Parties also argue that an adoption of marginal ELCC values is not warranted given the RA program's goals and principles and how this modification could erase the charging energy value that solar provides in hybrid configurations.<sup>24</sup> Similarly, the CAISO and SDG&E rightly argue that marginal ELCC is more appropriate for IRP procurement and how this could have material impacts on vintaging of resources.<sup>25</sup> CESA agrees and supports parties' recommendations against

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<sup>21</sup> *Ibid*, at 24.

<sup>22</sup> CESA comments at 31.

<sup>23</sup> Joint Solar Parties comments at 2.

<sup>24</sup> Joint Solar Parties at 2-3 and Department of Market Monitoring ("DMM") comments at 8.

<sup>25</sup> CAISO comments at 3 and SDG&E comments at 4.



adopting this modification. As the Commission contemplates any RA counting rule changes, however, CESA urges the Commission to consider the appropriate vintaging policies to avoid discriminatory and/or market disruptive impacts, as Energy Division contemplated in making this proposal.

**VII. AFTER ESTABLISHING THE QUALIFYING CAPACITY VALUE FOR BEHIND-THE-METER ENERGY STORAGE AND HYBRID RESOURCES, THE COMMISSION SHOULD LAUNCH A MULTIPLE-USE APPLICATIONS PROCEEDING TO ADDRESS ALL CROSS-CUTTING ISSUES.**

SCE and SDG&E comment on the need to fully address multiple issues prior to establishing an explicit QC value for BTM standalone energy storage and hybrid resources.<sup>26</sup> However, CESA reiterates our view that awaiting for all issues to be addressed prior to establishing an explicit QC value creates an unnecessary and artificial sequencing of issues that must be resolved. If such a sequential approach was pursued to tackle all of the issues involved with BTM storage and hybrid resources in providing RA value, then this class of resources would never be charted a pathway to do so, considering many of the underlying issues are interlinked and would never be resolved with issues viewed and resolved in silos. Importantly, establishing an explicit QC value for BTM standalone energy storage and hybrid resources does not mean that this will be the end-all for these resources since there will need to be consideration of performance evaluation, metering, deliverability, interconnection, and incrementality, which may lead to how this threshold QC value is adjusted or refined in a way that reflects their characteristics, capabilities, and compensation levels.

Upon establishing an explicit QC value for BTM standalone energy storage and hybrid resources in the June 2021 Decision in R.19-11-009, CESA recommends that the Commission then launch a new MUA proceeding to address all of these cross-cutting matters that draw expertise and staff from the relevant proceedings, initiatives, and agencies in order to provide concerted and coordinated focus on these matters. In the past, MUA issues have been addressed in Track 2 of the Energy Storage Rulemaking (R.15-03-011), but in light of Order No. 2222 directing focus on all types of distributed energy resources (“DERs”), an MUA proceeding could broadly address all DER issues that support Commission, CAISO, and CEC coordination on resolving issues,

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<sup>26</sup> SCE comments at 34-35 and SG&E comments at 3.

including for BTM energy storage and hybrid resources. This type of cross-agency working group was beneficial to developing solutions in the past, so a similar effort may help breakthrough the gridlock on these issues regarding BTM energy storage and hybrid resources.

**VIII. CONCLUSION.**

CESA appreciates the opportunity to submit these reply comments on the Track 3B.1 and 4 Proposals 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.

Jin Noh  
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**CALIFORNIA ENERGY STORAGE ALLIANCE**

Date: March 26, 2021