

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

Order Instituting Rulemaking to
Continue Electric Integrated Resource
Planning and Related Procurement
Processes.

Rulemaking 20-05-003
(Filed May 7, 2020)

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON
THE PROPOSED DECISION AND ALTERNATE PROPOSED DECISION REQUIRING
PROCUREMENT TO ADDRESS MID-TERM RELIABILITY (2023-2026)**

Jin Noh
Policy Director

Sergio Dueñas
Senior Regulatory Consultant

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

June 15, 2021

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

Order Instituting Rulemaking to
Continue Electric Integrated Resource
Planning and Related Procurement
Processes.

Rulemaking 20-05-003
(Filed May 7, 2020)

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON
THE PROPOSED DECISION AND ALTERNATE PROPOSED DECISION REQUIRING
PROCUREMENT TO ADDRESS MID-TERM RELIABILITY (2023-2026)**

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 Proposed Decision (“PD”) and Alternate Proposed Decision (“APD”) requiring procurement to address mid-term reliability, issued by the Administrative Law Judge (“ALJ”) Julie Fitch and Commissioner Clifford Rechtschaffen, respectively, on May 21, 2021.

I. INTRODUCTION.

CESA appreciates the opportunity to respond to select parties’ opening comments regarding the Integrated Resource Plan (“IRP”) mid-term reliability procurement PD/APD. CESA generally supports the PD/APD but offers the following key points for consideration.

II. THE 1,000 MW LONG-DURATION ENERGY STORAGE PROCUREMENT SHOULD BE MAINTAINED AS DEFINED IN THE PD/APD.

CESA observes a number of comments recommending modifications to the 1,000 MW long-duration energy storage (“LDES”) procurement requirement by 2026, including those recommending it be expanded to include firm/dispatchable clean generation,¹ four-hour energy storage solutions derated to discharge over an eight-hour period,² or mothballed or otherwise retired thermal generators using renewable fuels.³ However, the Commission should consider how the current 1,000 MW LDES procurement target for resources with minimum eight-hour discharge

¹ GridLiance West (“GLW”) comments at 3.

² California Community Choice Association (“CalCCA”) comments at 13 and Pacific Gas and Electric Company (“PG&E”) comments at 14.

³ Shell Energy North America (“Shell”) comments at 7.

capability is consistent with 2019-2020 Reference System Portfolio adopted in D.20-03-028, which selected 973 MW of optimally selected pumped hydro storage (“PHS”) under the 46 million metric ton (“MMT”) scenario by 2030, a proxy for LDES technologies with similar characteristics (*i.e.*, at least 8 hours of duration).⁴ Contrary to parties’ comments, clean firm or thermal generation did not substitute for the LDES selection. The RESOLVE model also selected this amount of LDES resources despite the modularity of lithium-ion battery energy storage to incrementally add energy duration.⁵ Unless substantiated otherwise by parties with evidence, CESA recommends that the Commission maintain the current 1,000 MW LDES procurement target in the PD/APD as is to be consistent with modeled portfolio selections.

III. CLARIFICATIONS ARE NEEDED FOR THE ZERO-EMISSION FIRM LONG LEAD-TIME RESOURCE PROCUREMENT CATEGORY.

CESA agrees with a number of parties who requested clarifications or modifications to the zero-emissions, firm long lead-time (“LLT”) resource procurement category. An immediate area of clarification is around the hours of dispatchability and energy delivery, where CESA agrees that a clarification that the hours are bookended as “hours ending” 17 and 21 to be consistent with Resource Adequacy (“RA”) Availability Assessment Hour (“AAH”) windows and the PD/APD requirement of 5 MWh of energy for every MW of capacity for resources qualifying in this category.⁶ CESA also generally agrees with requests for clarification from parties on the definition of “zero-emission,” “dispatchable,” and “*de minimis* emissions,” as well as the supposed interchangeability of the 85% capacity factor requirement with the five-hour dispatchability and delivery requirement.⁷ These definitions will impact the eligibility of standalone energy storage and renewable generation paired with energy storage, along with their charging restrictions or profiles. Depending on these clarifications on procurement category intent and resource characteristics, the Commission should not preclude specific resources if they can meet these

⁴ D.20-03-028 at 63.

⁵ CPUC, “RESOLVE Model Inputs and Results used for 2019 IRP Reference System Plan Proposed Decision,” Mar. 23, 2020. <https://www.cpuc.ca.gov/General.aspx?id=6442464143> (accessed Jun. 14, 2021). E3, “Proposed Inputs & Assumptions: 2019-2020 Integrated Resource Planning”, Oct. 04, 2020. <https://tinyurl.com/r9mdk7vv> (accessed Jun 14, 2021).

⁶ CalCCA comments at 7-8.

⁷ *See, e.g.*, Independent Energy Producers Association (“IEP”) comments at 4, Middle River Power (“MRP”) comments at 8-9, Calpine comments at 6, Public Advocates Office (“PAO”) comments at 2-3.

requirements. For example, some parties sought to expressly prohibit solar-plus-storage resources even though they represent zero-emissions generation, are made dispatchable by the pairing of energy storage, and are capable of providing firm capacity during the delivery windows with properly configured and designed energy storage (*e.g.*, five-hour duration, solar and storage sizing to ensure sufficient capacity delivery during conservative solar generation days). Such a resource would not meet the 85% capacity factor criterion, but as it currently stands, the PD/APD establish an “and/or” criterion. If unintended in that way, the Commission should clarify how and why the “and/or” resource eligibility characteristics are interchangeable for this procurement category.

IV. THE RESOURCE ADEQUACY RESTRUCTURING PROPOSAL NEEDS TO BE DEVELOPED AS SOON AS POSSIBLE TO ALIGN WITH PROCUREMENT.

CESA generally agrees with the comments from the California Independent System Operator (“CAISO”) and CalCCA that the IRP/RA counting methodologies need to be aligned and how RA Track 3B.2 proposals in R.19-11-019 may supersede the use of marginal effective load carrying capability (“ELCC”) values for solar, wind, and energy storage.⁸ On June 10, 2021, the Commission issued a PD adopting PG&E’s Slice-of-Day (“SOD”) proposal, which if adopted, will require additional refinement and development prior to its use in the 2024 RA compliance year. While it is too early to say whether the Commission officially adopts PG&E’s SOD proposal and/or how and how long implementation will take shape, the Commission must prioritize procurement and contracting certainty when establishing IRP ELCC values or in transitioning to RA restructuring reforms. Changing or uncertain RA values for energy storage will deter their procurement and present risks of timely deployment of resources needed for mid-term reliability.

V. STANDALONE STORAGE AND STORAGE HYBRIDIZATION WITH FOSSIL-FUELED ASSETS SHOULD BE RECOGNIZED AS A CLEAN RESOURCE ADEQUACY RESOURCE.

CESA is concerned with comments offered by the PAO regarding the eligibility of standalone energy storage to meet the 2024 procurement directive of 2.5 GW of incremental net qualifying capacity (“NQC”) provided by firm zero-emissions resources. In their opening comments, PAO notes that the PD and APD fail to define “zero-emissions” resources, making it unclear whether this concept refers only to onsite emissions from generation, or if it also

⁸ CAISO comments at 6 and CalCCA comments at 9.

encompasses upstream emissions from the production of a fuel source, such as electricity produced to charge a battery.⁹ In response, CESA recommends that the Commission clarify that energy storage assets, particularly those in standalone and gas-hybrid configurations, are in compliance of the Commission’s definitions of “zero or *de minimis* emissions”.

Standalone storage is faced with strong incentives to operate in a manner aligned with system reliability and minimizing greenhouse gas (“GHG”) emissions. In the RA Program, the Maximum Cumulative Capacity (“MCC”) buckets incent storage assets providing System RA to be available during the 4-9 pm period, whereas in the CAISO markets, the correlation of carbon rates and wholesale prices generally promotes the charging of storage during periods of high solar availability and later discharge coinciding with the peak-load period.¹⁰ Moreover, the CAISO recently adopted the minimum state-of-charge (“MSOC”) requirement to guarantee that, during days of significant demand and/or supply constraints, the CAISO can direct storage assets to charge ahead of the peak-load period, ensuring that storage will maximize the utilization of renewable energy that would be otherwise curtailed. Considering rules and incentives in place, PAO’s concerns related to the fact that grid electricity is not emission-free must be examined.

CESA agrees with MRP and PG&E that the PD/APD should reflect how energy storage hybridization with fossil-fueled capacity can address reliability and contingency needs while reducing GHG emissions, including in disadvantaged communities (“DACs”),¹¹ such that they should be treated as eligible for the IRP procurement order and allowed through a Tier 3 advice letter process. Hybrid gas-storage solutions are also explicitly required to be considered alongside preferred resources and energy storage resources in line with Public Utilities Code (“PUC”) Section 380, as modified by Senate Bill (“SB”) 1136.

VI. THE 10-YEAR CONTRACT TERM LENGTH MINIMUM MUST BE MAINTAINED.

Except for fossil-fueled capacity in most cases, the PD/APD establish minimum 10-year contract term lengths for new resource procurement pursuant to mid-term reliability needs. As The

⁹ PAO comments at 2.

¹⁰ CAISO. *2019 Annual Report on Market Issues & Performance*, 2020, p. 4. Available at <http://www.caiso.com/Documents/2019AnnualReportonMarketIssuesandPerformance.pdf>

¹¹ MRP comments at 13 and PG&E comments at 10.

Utility Reform Network (“TURN”) aptly puts, “long-term contracts are essential to the financing and development of new resources” and “the 10-year duration aligns with similar long-term contracting requirements under the Renewables Portfolio Standard (RPS) program for 65% of all compliance beginning in 2021.”¹² CESA agrees and urges the Commission to maintain this 10-year minimum contracting requirement. However, Shell and San Diego Gas and Electric Company (“SDG&E”) cast doubt on whether this is necessary for incremental IRP procurement and how it may reduce LSE flexibility in contracting for new resources in some cases.¹³ Even if IRP and RPS procurements are for different purposes, the Commission has recognized the need for long-term contracts, at least 10 years in length, for a long period of time in order to promote the development of new resources.¹⁴ For similar reasons, D.19-11-016 adopted these minimum contract requirements. Without long-term contracting, new resources will be unable to secure financing to support new-build projects.¹⁵ This fact does not change whether new resources are being procured, financed, and built for IRP or RPS purposes.

VII. CONCLUSION.

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

Respectfully submitted,



Jin Noh
Policy Director
CALIFORNIA ENERGY STORAGE ALLIANCE

Date: June 15, 2021

¹² TURN comments at 12.

¹³ Shell comments at 4-5 and SDG&E comments at 10.

¹⁴ See D.06-03-016 at 58; D.06-10-019 at Conclusions of Law (“COL”) 14-16 and Ordering Paragraphs (“OP”) 16-17; Public Utilities Code Section 399.13(a)(6) and Section 399.13(b); and D.17-06-026 at COL 1-3 and OP 1.

¹⁵ D.19-11-016 at 47, COL 28, and OP 10.