BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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TRACK 3 REPLY COMMENTS ON PROPOSALS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE

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Pursuant to the Assigned Commissioner's Scoping Memo and Ruling ("Scoping Memo"), issued on December 18, 2023, and the Assigned Commissioner's Amended Scoping Memo and Ruling ("Ruling") dated November 1, 2024, the California Energy Storage Alliance ("CESA") hereby submits these Track 3 Reply Comments to the California Public Utilities Commission ("Commission").

I. Introduction

The Ruling includes time-sensitive modifications to the slice-of-day ("SOD") framework, development of an Unforced Capacity ("UCAP") accreditation methodology for thermal power plants and battery electric storage systems, and other time-sensitive issues identified by parties in proposals to be discussed in Track 3 of this proceeding.

In Section II, regarding the UCAP proposals, (a) further workshops are needed, (b) a clear UCAP forced outage definition is needed, and (c) the supply cushion hours do not accurately reflect when specific resources are in-demand. In Section III, CESA addresses party concerns with

its voluntary charging sufficiency groups proposal. In Section IV, CESA addresses party concerns with its proposal to update the QC methodology for LDES resources procured to meet Integrated Resource Planning ("IRP") objectives. In Section V, CESA addresses party concerns with its proposed QC and slice-of-day treatment for extended duration Long Duration Energy Storage ("LDES") resources. In Section VI, CESA summarizes the support for its proposal to allow LSEs to show short-duration energy storage (less than 4 hours) at values up to their deliverability allocation. In Section VII, CESA opposes SCE's proposal to eliminate the current interim approach for charging sufficiency for paired resources and supports Terra-Gen's Track 2 recommendations.

II. UCAP

a. Further Workshops Are Needed

Both the Energy Division[1] and CESA[2] submitted UCAP proposals. Although the proposals were similar in their design for a resource-specific Effective Forced Outage Rate in-demand ("EFORd") that uses several years of historical outage data, CESA highlighted certain discrepancies[3] that need to be further developed. CESA agrees with Southern California Edison ("SCE"),[4] San Diego Gas & Electric ("SDG&E"),[5] REV Renewables ("REV"),[6] the Independent Energy Producers Association ("IEP"),[7] and California Environmental Justice Alliance ("CEJA")[8] that further workshops are needed.

[1] Energy Division Track 3 Proposals at pgs. 2-10.
[2] CESA Track 3 Opening Comments and Revised Proposals at Section III.a.
[3] *Id.* at Section II.a, Section II.b, and Sectin II.c.
[4] SCE Track 3 Proposals Opening Comments at pg. 15.
[5] SDG&E Track 3 Proposals Opening Comments at pg. 8.
[6] REV Track 3 Proposals Opening Comments at pg. 3.
[7] IEP Track 3 Proposals Opening Comments at pg. 4.
[8] CEJA Track 3 Proposals Opening Comments at pg. 10.

b. A Clear UCAP Forced Outage Definition Is Needed

REV,[9] Terra-Gen,[10] and Public Advocates Office ("Cal Advocates")[11] support CESA's proposal for the development of an unambiguous UCAP forced outage definition. The California Community Choice Association ("CalCCA")[12] recommended the Commission to work with stakeholders to better define UCAP-eligible outages for storage resources. Calpine[13] agrees that it is important to exclude outages that reflect "normal operating limitations." Cal Advocates supports CESA's guiding principle to exclude technology limitation driven forced outages from UCAP accounting but noted that the UCAP accounting should include state-of-charge ("SOC") driven forced outages that are under operator control.[14] This is an area where an unambiguous forced outage definition would add clarity to whether the outage should be accounted for in the UCAP value, as there are sudden equipment failures that lead to loss of storage capacity. CESA would see an equipment failure leading to loss of storage capacity as a UCAP forced outage, but not outages used to manage resource state-of-charge due to CAISO's lack of an accurate resource model.[15] At the Track 3 Workshop on February 12, 2025, CESA described the importance of ensuring resource UCAP values are comparable across resource types. Thermal resources have several normal operational limitations (e.g. various stages of a multi-stage generator) that ***are*** accounted for in CAISO's resource model, therefore ***not*** requiring thermal resource operators to

[9] REV Track 3 Proposals Opening Comments at pg. 1.
[10] Terra-Gen Track 3 Proposals Opening Comments at pg. 2.
[11] Cal Advocates Track 3 Proposals Opening Comments at pg. 20.
[12] CalCCA Track 3 Proposals Opening Comments at Section VI.H.
[13] Calpine Track 3 Proposals Opening Comments at pg. 3.
[14] Cal Advocates Track 3 Proposals Opening Comments at pg. 3.
[15] CESA believes Cal Advocates agrees with this, in principle, as it states, "The Commission should adopt CESA's proposal to exclude those outages that result from technology limitations that are not explicitly modeled in CAISO's market model and must instead be managed through the CAISO's outage process." Cal Advocates Track 3 Proposals Opening Comments at pg. 19.

insert outages for CAISO operational awareness. The resource model for energy storage does ***not*** similarly account for normal operating limitations of energy storage resources, therefore ***requiring*** energy storage resource operators to insert outages for CAISO operational awareness. Such outages must not be considered UCAP forced outages.

c. Supply Cushion Hours Do Not Accurately Reflect When Specific Resources Are In-Demand

AES Clean Energy ("ACE"),[16] CESA,[17] Terra-Gen,[18] and Middle River Power ("MRP")[19] expressed concerns regarding the Energy Division's supply cushion hours approach to defining when resources are in-demand. These concerns primarily revolve around whether the supply cushion hours accurately identify periods of genuine reliability need. Middle River Power ("MRP")[20] agrees with CESA that low supply cushion hours do not provide a reliable representation of system stress and notes the concern of including outages that occur during hours when resources are not needed. Further, MRP[21] supports CESA's proposal to develop EFORd UCAP rates, which considers a unit's availability performance when that resource is required to serve demand.

III. Voluntary Charging Sufficiency Groups

The slice-of-day transactability issues and impacts are well documented by both CESA[22] and CalCCA.[23] The current framework is not only inefficient, but it also discriminates against

[16] ACE Track 3 Proposals Opening Comments at Section II.1.
[17] CESA Track 3 Opening Comments and Revised Proposals at Section II.a.
[18] Terra-Gen Track 3 Opening Comments at Section II.B.
[19] MRP Track 3 Proposals Opening Comments at Section II.f
[20] *Id.*
[21] *Id.*
[22] CESA Track 3 Opening Comments at pgs. 30-32.
[23] CalCCA Track 3 Opening Comments at pg. 12.

standalone energy storage in favor of paired energy storage. A failure to resolve this issue will be detrimental to meeting state goals and seriously damage standalone storage value over time. The Commission must recognize that stand-alone storage provides reliability value to CAISO, regardless of whether a particular LSE obtains excess charging capacity. CESA proposed a voluntary charging sufficiency group construct to allow LSEs to form charging sufficiency groups, recognizing the full benefits of their inherent resource diversity. As discussed herein, all concerns raised by parties can be addressed.

ACE supports[24] CESA's proposal for voluntary charging sufficiency groups as a pragmatic approach to addressing the transactability and market inefficiencies created by the slice-of-day framework, stating that "…by allowing LSEs to voluntarily form Charging Sufficiency Groups, the framework enhances resource diversity benefits without disadvantaging non-participating LSEs and ensures that storage resources are utilized efficiently and that structural barriers to compliance are mitigated."[25] Although PG&E asks the Commission to decline[26] CESA's proposal at this time,[27] it does see some merits to the proposal, as the proposal does not prohibit LSEs from charging for membership in the group, meaning an LSE that has excess energy sufficiency could monetize it in one of these groups, somewhat addressing concerns with leaning in prior CESA proposals.

[24] ACE Track 3 Proposals Opening Comments at pg. 1
[25] *Id.* at pgs. 1-2
[26] PG&E Track 3 Proposals Opening Comments at pgs. 11-12.
[27] PG&E stated that "[t]he proposal should be reexamined after a year or more of SOD implementation to see if the need still exists."

MRP[28] and SDG&E[29] have expressed concerns regarding CESA's proposal for Voluntary Charging Sufficiency Groups.

Overall, SDG&E believes the proposal is administratively complex and burdensome, necessitating a significant expansion of responsibilities for Energy Division (ED) staff.[30] CESA outlined the additional steps that the Energy Division would need to take to implement the group-wide charging sufficiency test in its revised proposals.[31] None of the steps appear to be complex or burdensome.

SDG&E also believes the proposal lacks clarity regarding its interaction with the evolving UCAP methodology noting that the proposal fails to address how UCAP, which will derive resource RA value based on historical outage rates, would be applied within charging sufficiency groups.[32] The UCAP values will be applied to determine resource QC values, which would occur prior to the operation of the voluntary charging sufficiency group. The group construct does not add any complexity to the UCAP methodology and the UCAP methodology does not add any complexity to the group construct.

SDG&E claims that the proposal introduces operational complexities associated with coordinating charging and dispatch strategies across multiple LSEs within a group adding that such coordination may impede an individual LSE's ability to effectively manage its resource portfolio and respond dynamically to real-time grid conditions.[33] To be absolutely clear: the RA accounting under the slice-of-day framework is divorced from the actual operations of the portfolio

[28] MRP Track 3 Proposals Opening Comments at pg. 20.
[29] SDG&E Track 3 Proposals Opening Comments at pg. 18-19.
[30] *Id.*
[31] CESA Track 3 Opening Comments and Revised Proposals at pgs. 33-35.
[32] SDG&E Track 3 Proposals Opening Comments at pg. 18-19.
[33] *Id.*

resources and has no impact on how the CAISO will operate the resources. If anything, the voluntary charging sufficiency group proposal allows a more accurate RA accounting of how energy storage resources will be dispatched by the market, because CAISO will use any resource available to charge energy storage resources.

MRP argues that allowing individual LSEs to combine to meet their RA requirements would be a departure from the longstanding practice of assessing RA compliance on an individual LSE level.[34] Under CESA's proposal, each LSE must still procure enough resource capacity to meet their individual requirements.[35] The Energy Division would only ensure that there is sufficient excess energy in the group to charge the energy storage capacity needed for LSEs to meet their individual LSE RA requirements.

IV. IRP-LDES Qualified Capacity

CESA proposed[36] to update the QC methodology for LDES resources procured to meet IRP procurement obligations, to harmonize them with that which is required to meet IRP procurement obligations. CEERT[37] supports the proposal.

SCE[38] and SDG&E[39] are primarily concerned about the separation of RA program's reliability focus from the broader policy objectives of the IRP and the potential restriction of LSE procurement flexibility and increased costs. SDG&E posits the proposal as an unwarranted restriction on LSE procurement flexibility within the RA program and believes that the 8-hour

[34] MRP Track 3 Proposals Opening Comments, Section II.k
[35] CESA Track 3 Opening Comments and Revised Proposals at pg. 33.
[36] *Id.* at Section III.c.
[37] CEERT Track 3 Proposals Opening Comments at pg. 3
[38] SCE Track 3 Proposals Opening Comments at pg. 13
[39] SDG&E Track 3 Proposals Opening Comments at pg. 13-14

minimum duration itself is arbitrary.[40] The proposal is warranted to ensure that the RA value received in the RA program is aligned with the reliability value that was predicated in the IRP procurement decision. Without an update to the QC methodology, resources could be sold as an 8-hour resource IRP purposes, therefore being used to meet the 8-hour reliability value assumed in the IRP procurement decision but then be used in the RA program in a way that provides lower reliability value. As to whether the 8-hour duration is arbitrary, CESA clarifies that the 8-hour minimum would be used for those resources that were valued at the 8-hour value in the IRP process. The Commission could choose to further align resources valued at different durations in the IRP process with the RA program based on the various defined IRP durations for which LSEs are assessed IRP compliance.

V. Extended Duration LDES Qualified Capacity Value

CESA proposed to create an ED-LDES resource class and accompanying QC methodology and slice-of-day counting rules, to meet the Commission's intent to "[ensure] LDES resources are properly valued across the [slice-of-day] framework [as] critical to the durability and success of the [slice-of-day] framework."[41]

In discussing the merits of exempting LDES resources from charging sufficiency requirements, SCE agreed[42] that it is appropriate to exempt LDES that have discharge duration over 12 hours (12 hour +, 24 hour+, and Multiday) from the charging sufficiency requirement due to their unique charging and discharging patterns. It also noted that there are durations that should not be exempt (such as 8-hour duration resources) because they could likely be completely cycled

[40] *Id.* at pg. 14
[41] D.23-04-010 at 45.
[42] SCE Track 3 Proposals Opening Comments at pg. 12.

within 24 hours. CESA's proposal is mindful of SCE's concern, but instead of drawing a brightline definition based solely on the resource duration, the proposal considers both the duration and roundtrip efficiency to determine which resources would receive the ED-LDES treatment. CESA believes that this element of its proposal would meet SCE's intent.

Calpine notes that "…to the extent that charging sufficiency requirements are relaxed or eliminated for LDES resources, the Commission should utilize CESA's proposal to count LDES at its ELCC… [because] [c]ounting LDES at its ELCC accounts for the risk that LDES might not be charged if charging requirements are not reflected in the compliance showing itself."[43]

The Cal Advocates states that the proposal would create an unequal footing between LDES and other non-variable resources, where the Commission accredits LDES based on modeled reliability benefits while the Commission accredits all others based on their operational characteristics.[44] CESA notes that although the ELCC values will likely be very conservative, they are based both on operational characteristics as well as charging sufficiency and therefore would be a reasonable proxy for use in the slice-of-day framework at this time.

VI. Short Duration Energy Storage Slice-of-Day Counting

SCE, ACP-California, and CEERT support CESA's proposal to allow Load Serving Entities (LSEs) to show short-duration energy storage (less than 4 hours) at values up to their deliverability allocation. SCE stated that "…by appropriately enforcing all other resource constraints, it will allow a resource's contributions to reliability to be fairly represented in the RA process."[45] ACP-California supports the proposal as it aims to facilitate accurate showings for

[43] Calpine Track 3 Opening Comments at pg. 6.
[44] Cal Advocates Track 3 Opening Comments at pg. 18
[45] SCE Track 3 Proposals Opening Comments at pgs. 13-14

short duration storage resources.[46] CEERT agrees that the proposal will ensure LSEs have access to all available deliverable resource adequacy capacity.[47]

Based on opening comments, there appear to be no explicit concerns raised against CESA's proposal to allow LSEs to show short-duration energy storage (less than 4 hours) at values up to their deliverability allocation.

VII. The Commission Should Reject the SCE Proposal to Eliminate the Current Interim Approach for Charging Sufficiency for Paired Resources and Instead Adopt the Previous Terra-Gen Recommendation

SCE[48] proposes the Commission to deem "energy sufficiency" as a capacity attribute that is created by a project that is eligible to count towards an LSE's energy sufficiency showing and deem that capacity attribute to remain with the VER component of the paired resource.

As Terra-Gen explains,[49] "…there is no inherent capacity attribute created simply by the [Energy Only] solar on its own if there is no co-located storage RA resource associated with the same POI to create the on-site charging need." Creating a new capacity attribute and assigning it by default to a non-RA resource is problematic. It is more straightforward to allow the contracts to specify this attribute. In the absence of a contract specification, the interim pro-rata allocation *counting* approach is the most reasonable approach, because it does not assume a capacity attribute belongs to a particular resource, let alone a non-RA resource.

[46] ACP-California Track 3 Proposals Opening Comments at pg. 17.
[47] CEERT Track 3 Proposals Opening Comments at pg. 4.
[48] SCE Track 3 Proposals at pgs. 6-7.
[49] Terra-Gen Track 3 Proposals Opening Comments at pgs. 9-11.

The pro-rate allocation approach adopted as an interim measure by the Commission should continue to apply and only under circumstances where there are no contractual agreements administering the right to such benefits. The Commission should allow for an exemption to the proration rule for contracts that specify the allocation of charging energy sufficiency.

VIII. Conclusion

CESA appreciates the opportunity to submit these Track 3 Reply Comments and looks forward to working with the Commission and parties in this proceeding.

Respectfully submitted,

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