

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

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

Rulemaking 23-10-011

**COMMENTS OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
ON TRACK 1 PROPOSALS**

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**I. Introduction**

Pursuant to the *Assigned Commissioner’s Scoping Memo and Ruling* (Ruling), issued on December 18, 2023, the California Independent System Operator Corporation (CAISO) submits comments on all Track 1 proposals filed in this proceeding.

The CAISO’s comments focus on ensuring resource adequacy (RA) program requirements meet a 0.1 loss of load expectation (LOLE) across the year. Specifically, the CAISO urges the Commission to adopt a process to stress test the planning reserve margin (PRM) to meet a 0.1 LOLE. For 2025, the Commission should not adopt a PRM less than the 17% PRM adopted in Decision (D.) 23-06-029, and the Commission should retain the “effective” PRM adopted in D.23-06-029 until the Commission adopts a process to stress test the PRM to meet a 0.1 LOLE. The Commission should also consider adopting multiple PRMs across the year for 2026 and beyond.

The CAISO also recommends the Commission prioritize enhancements to RA and integrated resource plan (IRP) forward procurement processes as well as coordination between these two proceedings. Although the CAISO agrees with the rationale and some elements of Residual Capacity Auction (RCA) proposal submitted by the Public Advocates Office at the California Public Utilities Commission (Cal Advocates), the Commission should first develop of the Reliable and Clean Power Procurement Program (RCPPP) in the IRP proceeding. Prioritizing enhancements to forward, programmatic procurement well ahead of the need helps ensure load

serving entities (LSEs) have sufficient lead-time to complete procurement, interconnection, permitting, and construction processes and account for other risks such as supply chain delays.

The CAISO's comments also outline merits of the Commission delaying Slice of Day implementation beyond 2025. If the Commission delays Slice of Day implementation, the Commission should adopt a viable off-ramp RA framework for 2025.

Finally, the CAISO's comments commit to further coordination with Energy Division to develop counting methodologies that account for forced outages and ambient de-rates through CAISO's RA working groups and policy development. The CAISO also supports Bonneville Power Administration's (BPA) import RA proposal, and clarifies CAISO's RA showing timelines and processes.

## **II. Discussion**

### **A. Planning Reserve Margin**

The Commission should ensure RA requirements meet a 0.1 LOLE across the year. As such, the Commission should set the PRM in the RA program to meet this target. The CAISO provides several recommendations below to achieve this goal.

#### **1. The Commission Should Commit to Stress Testing the PRM to Meet a 0.1 LOLE Across the Year.**

The CAISO supports proposals by American Clean Power (ACP) and the Western Power Trading Forum (WPTF) recommending the Commission formally adopt a process to stress test the PRM in the RA program to ensure the PRM results in RA requirements that meet a 0.1 LOLE.<sup>1</sup> The CAISO's Track 1 proposal aligns with these PRM testing recommendations.<sup>2</sup>

Before the Commission adopts the PRM for a given RA year, the Commission should stress test the PRM to ensure it meets a 0.1 LOLE across the year. A 0.1 LOLE reliability target is an industry-accepted measure of supply sufficiency and can help prevent capacity shortfalls. As such, stress testing is critical to confirm the PRM achieves a reliable RA portfolio.

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<sup>1</sup> ACP, Track 1 Proposal, R.23-10-011, January 19, 2024, pp. 5-6; WPTF, Track 1 Proposal, R. 23-10-011 January 19, 2024, p. 2.

<sup>2</sup> CAISO, Track 1 Proposal, R.23-10-011, January 19, 2024:  
<https://www.caiso.com/Documents/Jan19-2024-Track1Proposals-ResourceAdequacyProgram-R23-10-011.pdf>

The CAISO agrees with ACP that “the most pressing area of alignment at this time is to ensure a functional translation between the [LOLE] study and the [PRM], a foundational programmatic element which is necessary to ensure a smooth implementation of Slice-of-Day and prevent reliability and market disruption when the program becomes binding for Compliance Year 2025.”<sup>3</sup> As such, the CAISO remains concerned that there are still uncertainties surrounding such alignment. First, the process to set the PRM under Slice of Day based on an LOLE study is unsettled. Second, the 17 percent PRM adopted for 2025 in D.23-06-029 and the PRM set for the Slice of Day test year have not been stress tested. Without testing, it is not clear whether the 2025 PRM adopted in D.23-06-029, nor the 15.43% Slice of Day test year PRM, will ensure that 2025 RA requirements meet a 0.1 LOLE.

Discussions in February RA working groups indicated that Energy Division will not have time to run an updated LOLE study and re-evaluate and stress test the PRM for 2025. For 2026 and beyond, the CAISO urges the Commission to prioritize developing a formal PRM stress testing process that the Commission will implement to establish the PRM. This stress testing is critical for ensuring the RA PRM will result in RA requirements that meet a 0.1 LOLE across the year.

**2. For 2025, the Commission Should Not Adopt a PRM Lower than 17% and Should Retain the “Effective” PRM.**

The Commission should not adopt a PRM less than the 17% PRM adopted in D.23-06-029 for 2025.<sup>4</sup> The Commission should not adopt the 15.43% PRM used for the Slice of Day test year for 2025. The 15.43% PRM the Commission established for the Slice of Day test year has not been stress tested. The CAISO is concerned a 15.43% PRM will introduce loss of load risk in months outside the peak month, and will not result in RA requirements that meet a 0.1 LOLE across the year.

In general, the CAISO remains concerned that simply taking the 2024 Slice of Day test year approach to set a single annual PRM, which calculates the PRM based on the peak month of the year, will not result in RA requirements that meet a 0.1 LOLE. As noted in CAISO’s Track 1

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<sup>3</sup> ACP, Track 1 Proposals, R.23-10-011, January 19, 2024, p. 2.

<sup>4</sup> *Decision Adopting Local Capacity Obligations for 2024-2026, Flexible Capacity Obligations for 2024, and Program Refinements (D. 23-06-029)*, June 29, 2023, p. 137.

Proposal, test results for this approach previously produced a 0.4 LOLE, much higher than the industry standard 0.1 LOLE target.<sup>5</sup>

The CAISO also has concerns about whether the 17% PRM adopted for 2025 is high enough to ensure RA requirements meet a 0.1 LOLE.<sup>6</sup> Ultimately, the CAISO does not support a PRM for 2025 less than the 17% adopted in D.23-06-029.

The Commission should also retain the “effective” PRM for 2025 adopted in D.23-06-029. Although the CAISO continues to have concerns about retention of an “effective” PRM in the RA program, there is no evidence to suggest that additional procurement under the “effective” PRM is unnecessary to ensure reliability of the RA program. The Commission should not eliminate this additional procurement requirement until the Commission sets the PRM at a level that is tested and meets a 0.1 LOLE.

### **3. For 2026 and Beyond, the Commission Should Consider Adopting Multiple PRMs Across the Year.**

The Commission should consider adopting multiple PRMs across the year for 2026 and beyond to ensure annual RA requirements meet a 0.1 LOLE. The CAISO agrees with ACP’s assessment in its revised Track 1 proposal that the Commission may need to consider multiple PRMs across the year, given documented challenges with effectively translating the results of an LOLE study to monthly compliance requirements.<sup>7</sup> As discussed in the CAISO’s Track 1 proposal, multiple PRMs across the year may be necessary to both ensure RA requirements meet a 0.1 LOLE across the year and to prevent any single month PRM and RA requirements from exceeding the planned resource portfolio.<sup>8</sup> The CAISO looks forward to exploring these concepts further in Track 2 of this proceeding.

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<sup>5</sup> Energy Division, Slice of Day – Load Forecast Process Update and Loss of Load Studies Translation for RA Proceeding Update, October 6, 2022: [https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/resource-adequacy-homepage/resource-adequacy-compliance-materials/resource-adequacy-history/10-6-2022-wrap-up/workshop-10\\_energy-division\\_221006.pdf](https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/resource-adequacy-homepage/resource-adequacy-compliance-materials/resource-adequacy-history/10-6-2022-wrap-up/workshop-10_energy-division_221006.pdf).

<sup>6</sup> CAISO, *Opening Comments on Decision Adopting Local Capacity Obligations for 2024-2026, Flexible Capacity Obligations for 2024, and Program Refinements*, June 14, 2023, p. 2.

<sup>7</sup> ACP, Track 1 Revised Proposals, R. 23-10-011, February 23, 2024, p. 3.

<sup>8</sup> CAISO, Track 1 Proposal, R. 23-10-011, January 19, 2024, pp. 2-3.

**B. The Commission Should Prioritize Enhancements to RA and IRP Forward Procurement Processes.**

**1. The Commission Should Prioritize Development of a Long-Term Procurement Framework in the IRP Proceeding and Alignment with RA.**

The Commission should prioritize the development of the RCPPP in the IRP proceeding to establish procurement requirements for new and existing resources well ahead of the need for these resources. Proactive forward procurement will help ensure LSEs have sufficient lead-time to complete procurement, interconnection, permitting, and construction processes and account for other risks such as supply chain delays.

The CAISO understands the Commission will consider longer-term forward procurement options and alignment with IRP in a later track of this proceeding. The Commission should prioritize enhancements to upstream procurement processes to help mitigate capacity shortfalls in the RA timeframe and alleviate drivers of delayed procurement and project development.

**2. The Commission Should Focus on Enhancements to Forward Capacity Procurement Processes Before Considering Cal Advocates RCA Proposal.**

The CAISO supports elements of Cal Advocates' RCA proposal. The CAISO appreciates that the RCA proposal is not solely a RA waiver proposal, but attempts to cure capacity shortfalls through a central buyer if the Commission grants RA waivers. The RCA proposal also limits reliance on the CAISO's backstop procurement processes by including a process for curing capacity shortfalls in the Commission's RA processes

Although the CAISO agrees with elements of the RCA proposal, this proposal will add significant work to already compressed monthly RA showing timelines. Parties will need to evaluate details and timelines associated with this proposal to determine if the RCA process could feasibly fit into monthly RA timelines.

Instead, the Commission should prioritize enhancements to upstream forward procurement processes to help manage capacity shortfalls further in advance. After the Commission develops the RCPPP and enhances its forward procurement framework, the Commission could revisit enhancements to backstop procurement processes, such as Cal Advocates' RCA proposal.

**C. The CAISO Supports Energy Division’s Efforts to Develop an Unforced Capacity Framework, and Commits to Continuing to Work with Energy Division to Advance Resource Counting Rules.**

The CAISO appreciates Energy Division’s commitment to coordinating development of an unforced capacity (UCAP) methodology across RA processes at the Commission and the CAISO.<sup>9</sup> In parallel to this proceeding, the CAISO continues to vet counting rules and availability and incentive mechanisms in its Resource Adequacy Modeling and Program Design (RAMPD) working groups. Stakeholders have suggested the CAISO explore developing a UCAP framework and re-evaluate availability and performance incentives in these working groups. Stakeholders have also suggested the CAISO update its default counting rules and PRM. The CAISO supports RA counting rules that effectively reflect resources’ contributions to reliability and incent both availability and performance, particularly during critical hours. The CAISO commits to further developing these concepts with Energy Division.

The CAISO agrees with principles in Pacific Gas and Electric Company’s (PG&E) Track 1 Proposals and with points raised by parties in workshop discussions that a UCAP design at Commission should closely coordinate with CAISO’s existing availability and incentive designs, including the RA Availability Incentive Mechanism (RAAIM) and the CAISO’s outage substitution rules.<sup>10</sup> The CAISO also agrees with PG&E that the Commission should coordinate application of a UCAP framework with the PRM, as resource counting rules directly impact the PRM.<sup>11</sup>

To advance UCAP and application of ambient de-rates to capacity accreditation, the CAISO identifies three issues for further coordination between the CAISO and the Commission: (1) whether the CAISO or Commission should develop a UCAP mechanism and/or application of ambient de-rates; (2) in order to strengthen availability incentives, whether a UCAP mechanism and/or ambient derates should be applied on a resource-specific basis versus a class average approach; and (3) if a resource-specific approach is favorable, what data sources are required (*e.g.*, Generating Availability Data System data versus CAISO outage data).

The CAISO is committed to working with Energy Division and parties to develop a UCAP framework in this proceeding and in the CAISO RAMPD working groups.

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<sup>9</sup> Energy Division, Track 1 Proposals, R. 23-10-011, January 19, 2024, p. 17.

<sup>10</sup> PG&E Track 1 Proposals, R. 23-10-011, January 19, 2024, p. 4.

<sup>11</sup> *Id.*

**D. The CAISO Finds Merit in Delaying Slice of Day Implementation. Before delaying implementation, the Commission Should Adopt a Viable Off-Ramp Framework for 2025 and Beyond.**

Energy Division’s Slice of Day (SOD) Report questions whether the Commission should “consider delaying full implementation of the SOD Framework until 2026 to allow more time for development of compliance tools and other key aspects of the framework.”<sup>12</sup> In revised Track 1 proposals, the California Community Choice Association (CalCCA) and the Alliance for Retail Energy Markets (AReM) propose that the Commission delay Slice of Day implementation.<sup>13</sup>

The CAISO sees merit to the Commission delaying Slice of Day implementation for reasons. A delay would allow the Commission and parties to: (1) solidify the process to set the PRM under the Slice of Day framework; (2) consider party proposals submitted in this proceeding, many of which are based on experience with the 2024 test year; (3) analyze LSEs’ monthly test year showings submitted throughout 2024, and identify any additional process and design enhancements.

If the Commission delays Slice of Day implementation, it is critical the Commission establish a viable off-ramp framework for 2025. Adopting a reversion framework in this proceeding will provide parties certainty regarding RA requirements for 2025.

**E. The CAISO Supports BPA’s Import RA Proposal.**

BPA’s proposal requests the Commission adopt a process for BPA to make several attestations to qualify BPA’s imports as resource-specific under the Commission’s import RA rules. Specifically, BPA will attest that its RA import resources are: (1) delivered from the Federal Columbia River Power System; and (2) not double counted or already encumbered.<sup>14</sup> BPA’s proposal is also implementable in the near term. BPA’s proposal states, “The information needed to validate that RA imports are backed by unencumbered resources is already provided to RC West, the Western reliability coordinator operated by the CAISO, and Bonneville can readily provide the same information to the CPUC or CAISO.”<sup>15</sup> In addition, BPA’s proposal states BPA

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<sup>12</sup> Energy Division, Report on Resource Adequacy Slice of Day Implementation and Year Ahead Showings, February 5, 2024, p. 60.

<sup>13</sup> AReM, Revised Track 1 Proposals, R. 23-10-011, February 23, 2024, pp. 4-6; CalCCA, Track 1 Revised Proposals, R. 23-10-011, February 23, 2024, p. 9.

<sup>14</sup> BPA, Track 1 Proposals R. 23-10-011, January 19, 2024, p. 4.

<sup>15</sup> *Id.*

is “willing and capable of delivering energy to the CAISO on firm transmission and backed by operating reserves.”<sup>16</sup>

The CAISO supports BPA’s proposal, which will help unlock additional reliable, firm RA supply. Given tight RA market conditions in California, the Commission should adopt enhancements to RA import rules that could allow additional reliable and deliverable import capacity to count towards RA requirements.

## **F. RA Showing Timelines**

### **1. The Commission Does Not Have the Authority to Change CAISO RA Showing Timelines.**

Several parties propose the Commission change RA showing timelines to allow more time for resources achieving commercial operation between the current showing deadline and the start of the RA month to count towards RA compliance at the Commission.<sup>17</sup> In workshops and in the California Energy Storage Alliance’s (CESA) revised Track 1 proposal, parties clarified these proposals only apply to Commission timelines, not CAISO RA showing timelines.<sup>18</sup> The CAISO appreciates this clarification. The CAISO reiterates that the Commission does not have the authority to change CAISO showing timelines, and any changes to CAISO showing timelines must be coordinated through CAISO’s stakeholder process.

### **2. CESA’s Analysis Overstates the Amount of Capacity not Shown on CAISO Supply Plans.**

CESA’s Track 1 proposal and revised Track 1 proposal, include an analysis of resources achieving commercial operation (COD) between T-45 and T-1 in 2023.<sup>19</sup> CESA states that this capacity was not “eligible to be included on LSE RA Plans in each Compliance Month and “[h]undreds of megawatts of capacity achieve COD over the course of the summer and could be available to the CAISO without the need to engage in backstop procurement.”<sup>20</sup> The CAISO believes CESA’s analysis warrants clarification.

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<sup>16</sup> *Id.*

<sup>17</sup> CESA, Revised Track 1 Proposals, R. 23-10-011, February 23, 2024, p. 3; CalCCA, Track 1 Proposals, R. 23-10-011, January 19, 2024, p. 8; Southern California Edison Company, Track 1 Proposals, R. 23-10-011, January 19, 2024, p. 5.

<sup>18</sup> CESA, Revised Track 1 Proposal, R. 23-10-011, February 23, 2024, p. 7.

<sup>19</sup> *Id.*, p. 6; CESA, Track 1 Proposals, R. 23-10-011, January 19, 2024, p. 6.

<sup>20</sup> CESA, Track 1 Proposals, R. 23-10-011, January 19, 2024, p. 7; CESA, Revised Track 1 Proposal, R. 23-10-011, February 23, 2024, pp. 5-6.

The CAISO clarifies that CAISO RA showing timelines include a cure period between T-45 and T-30, and projects that achieve COD or have commercial operation for markets (COM) status and receive net qualifying capacity (NQC) by T-30 are eligible to be shown on CAISO RA plans. Several projects in 2023 met these criteria by T-30, enabling LSEs to show these resources on CAISO RA plans and count as RA at the CAISO.

CESA's analysis includes all projects that achieved COD between T-45 and T-1, which includes projects that achieved COD within the CAISO cure period. CESA's analysis also includes projects that achieved COM and received NQC by the end of the CAISO cure period, but achieved COD between T-45 and T-1. Therefore, CESA's analysis overstates the amount of capacity that achieved commercial operation by T-1 not shown on CAISO RA plans.

### **III. Conclusion**

The CAISO appreciates the opportunity to provide comments on the party proposals.

Respectfully submitted

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