



Resource Adequacy Modeling and Program Design

Track 3A: Resource Visibility

Straw Proposal

May 2025

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Executive Summary

This straw proposal aims to enhance the California Independent System Operator's (ISO) resource adequacy processes by improving visibility into resources available for procurement through the ISO's backstop measures.¹ It is part of a broader stakeholder initiative launched to consider comprehensive changes to the ISO's resource adequacy processes (Resource Adequacy Modeling and Program Design, RAMPD). Following the guidance from the RAMPD working group, this proposal was prioritized for its ease of implementation and its potential to enhance the ISO's ability to maintain grid reliability.

Currently, the ISO lacks visibility into the contractual status of Resource Adequacy (RA)-eligible capacity not shown as RA. Obtaining this information will better inform the ISO's year-ahead, month-ahead, and intra-month Capacity Procurement Mechanism (CPM) processes. Improving visibility into resource status is a crucial first step in a multi-phase effort to enhance the effectiveness of the ISO's backstop processes.

The ISO's backstop procurement authority works alongside local regulatory RA programs to ensure reliability in the CAISO balancing authority area (BAA) through specific tariff-defined actions. When RA deficiencies or grid circumstances require more capacity than supplied by the RA program, the ISO can procure additional capacity through its CPM. To exercise its CPM authority, the ISO must identify capacity that is available and willing to accept a voluntary CPM designation.

This proposal suggests adopting annual and monthly reporting requirements for all RA-eligible capacity in the CAISO BAA that is not shown as RA. These reporting requirements will provide visibility without imposing new availability requirements on the reported capacity. Enhanced visibility into RA-eligible capacity will allow the ISO to better assess system reliability needs and target outreach to potential CPM suppliers more efficiently. The information gathered may also inform future updates to the CPM structure.

The proposed reporting requirements fall within the ISO's existing authority under section 4.6.7.1 of the ISO tariff. The ISO will issue a data request to obtain this information for the summer, and will seek tariff amendments to clarify the specific information required by this proposal.

Introduction

Building on the RAMPD working group's problem statements and stakeholder feedback on the issue paper released in November 2024, this straw proposal is also the first step in the ISO's review of its backstop procurement programs. Track 3 of the RAMPD initiative is focused on backstop procurement issues. The first area Track 3 will explore, called 3A, is resource visibility. Track 3A is focused on identifying and accessing information that will allow the ISO to carry out its existing backstop procurement programs more effectively. Track 3A will address the first of the four problem statements the RAMPD working group identified for backstop procurement reform:

1. The ISO lacks visibility into the contract and availability status of resources not shown as RA, preventing the ISO from efficiently and reliably running its current CPM processes.

¹ In this straw proposal the California Independent System Operator is referred to as "the ISO" except in cases referring to the California Independent System Operator Balancing Authority Area, where it is referred as "CAISO" as part of the abbreviation "CAISO BAA."

2. Some stakeholders note they lack visibility into the ISO's CPM decision making processes.
3. In the current tight RA market, the ISO's CPM may not be producing all of its intended results particularly given the frequent lack of bids into its Competitive Solicitation Processes.
4. As grid reliability needs evolve (e.g. to address changing needs for battery storage) the ISO's CPM process may need to evolve to obtain specific attributes necessary for reliability.

This straw proposal identifies the contractual status of RA-eligible capacity not shown as RA as information that would improve the effectiveness of the Capacity Procurement Mechanism (CPM), the ISO's primary backstop procurement program. The straw proposal outlines a new set of reporting requirements for this information that will apply to scheduling coordinators of RA-eligible capacity located inside the CAISO BAA. These reporting requirements are within the ISO's existing authority under tariff section 4.6.7.1, but the ISO will seek tariff changes to incorporate this specific information into the tariff for the sake of clarity.

Later in 2025 the ISO will begin the stakeholder process for Track 3b. Track 3b will focus on structural review and potential reform of the backstop programs, and will address problem statements two through four. It will be the vehicle for stakeholder suggestions on how to improve the CPM structure and some of the ISO's processes around the Extended Day-Ahead Market resource sufficiency evaluation. The conversation in Track 3b will be informed by the information gathered through the process in this straw proposal.

Background on the Capacity Procurement Mechanism (CPM) and the Competitive Solicitation Process (CSP)

The CPM is a core part of the ISO's backstop procurement authority designed to work in harmony with the forward LRA-administered RA programs. When there is a deficiency in load serving entity (LSE) RA plans or in specific extenuating grid circumstances, the ISO has the tariff authority to conduct backstop procurement to fill the gap and maintain grid reliability. This authority to designate capacity under the CPM covers six tariff-defined circumstances.² Four of the designations correspond to different types of RA deficiencies while the significant event and exceptional dispatch designations address extenuating grid circumstances.

Operation of the CPM relies on capacity willingly offered to the ISO by scheduling coordinators (SCs). The CSP is the ISO's process for identifying capacity available for a CPM designation. Through the CSP, SCs may voluntarily offer capacity that has not already been shown as RA for a CPM designation. CSPs are run on three recurring timeframes: annual, monthly, and intra-monthly.³ These correspond to the types of CPM designations, providing a pool of up-to-date offers on the timelines appropriate to the ISO decision-making on each type of designation (Figure 1). However, capacity is not required to have come through the CSP in order to receive and accept a CPM designation if it is otherwise eligible. If there are

² Tariff section 43A.2 describes the six sets of circumstances, or designations, under which the ISO has CPM procurement authority.

³ The term "year-ahead" is synonymous with "annual" when describing CSP processes. Similarly, "month-ahead" and "monthly" are synonymous.

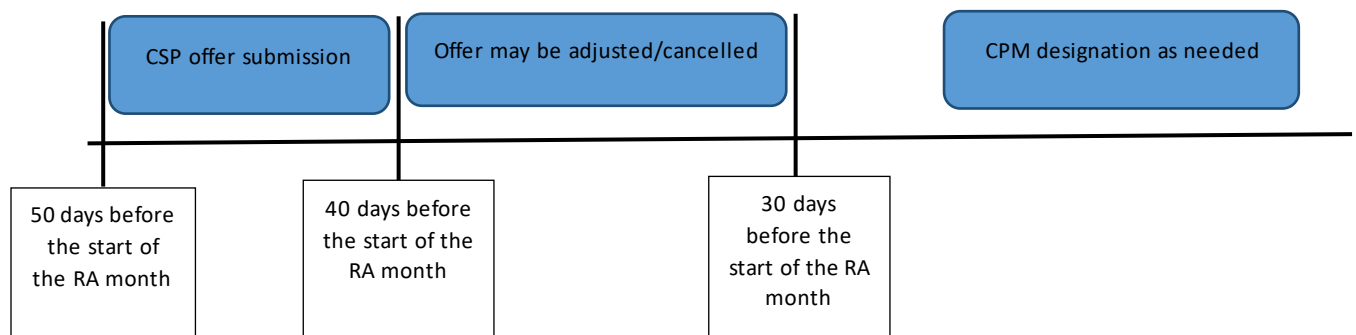
insufficient offers into a CSP to meet the ISO’s operational need, the ISO may offer a CPM designation to capacity that was not offered to the CSP.

Figure 1: CSP Timeframes and the CPM Designation Decisions they support⁴

Timeframe	CPM event covered in a CSP
Annual	<ul style="list-style-type: none"> • Insufficient cumulative local capacity in RA plans • Insufficient cumulative system capacity in RA plans • Insufficient cumulative flexible capacity in RA plans • Collective deficiency in local area
Monthly	<ul style="list-style-type: none"> • Insufficient cumulative local capacity in RA plans • Insufficient cumulative system capacity in RA plans • Insufficient cumulative flexible capacity in RA plans • Insufficient cumulative system capacity due to planned outages
Intra-monthly	<ul style="list-style-type: none"> • Significant event • Exceptional dispatch

All CSP iterations follow a standardized timeline documented in the ISO’s Business Practice Manual for Reliability Requirements. In the monthly timeframe for example, CSP offers may be submitted in CIRA up to 40 days before the start of the RA month and adjusted down in price or quantity up to 30 days before the start of the RA month. At that point all offers are finalized and may not be withdrawn until the ISO has completed the CPM process and awarded designations to the selected resources (Figure 2).⁵

Figure 2: Timeline for monthly Competitive Solicitation Process



In all iterations of the CSP, SCs may offer their capacity to the ISO at prices up to a soft offer cap, currently set at \$7.34/kW-month, or a resource-specific cost-based price approved by FERC.⁶

In theory, all available capacity not shown as RA can be offered into the CSP. If this was done, the CSP offer list would provide transparency into the full pool of resources available for CPM procurement. However, offering capacity into the CSP is voluntary, and there are reasons why a supplier might choose not to.

One reason articulated by stakeholders is loss of flexibility. Once CSP offers are finalized, suppliers may not withdraw them until the current CPM designation cycle is complete. If an offer is selected to receive a CPM designation the SC may not turn it down, and the resource acquires a must offer obligation

⁴ [Business Practice Manual for Reliability Requirements](#), Version 74, October 5, 2023. Section 5.1, page 48.

⁵ Id at 51.

⁶ See tariff section 43A.4.1.1.1.

equivalent to that of an RA resource for a minimum of 30 or 60 days depending on the type of CPM designation.⁷ This prevents capacity offered into the CSP from being committed elsewhere until the offer is released (if not selected) or the CPM designation term expires (if it is selected). Suppliers wishing to use capacity for other purposes, such as RA substitution within the ISO's RA program or reliability services in a market outside the CAISO BAA, may choose not to offer that capacity into the CSP to maintain flexibility to use the capacity for those other purposes. This means the CSP offers usually represent only a subset of CSP-eligible capacity, and the CSP process gives no visibility into how much CSP-eligible capacity is not offered and for what reasons.

This limits ISO personnel making backstop procurement decisions. First, it limits visibility into what additional capacity may be available if CSP offers are insufficient to meet the CPM procurement need in a given year or month. For example, a resource that did not offer to the CSP in hopes of selling its capacity outside the CAISO BAA may be unsuccessful. That resource may now be willing to accept a CPM designation, if offered, but the ISO does not know that resource is still available. This is a growing concern given the decline in CSP offers since 2020, discussed further in the following section.

The limited pool of CSP offers also makes it harder to identify potential drivers of long-term trends in CSP results. The ISO can see that the amount of capacity being offered has been declining but not why, and this ambiguity has implications for reliability planning. If offers are declining because more resources are taking on a market obligation through programs like RA that are still within the CAISO BAA, the decline in CSP offers may not be indicative of a reliability risk. But if, for example, more CSP-eligible capacity is being sold for reliability services outside the CAISO BAA, the decline in CSP offers may correspond to a meaningful decline in resources available to serve the CAISO BAA. The CSP process therefore creates only part of the visibility the ISO needs to make optimal backstop decisions in today's changing energy landscape.

The Role of Visibility

Identifying when backstop procurement is necessary and finding resources to procure both rely on the ISO having adequate visibility into the entire RA-eligible resource fleet. As discussed in the RAMPD working group, improved visibility into the resources internal to the CAISO BAA could help explain recent trends in CPM solicitation results, improve functioning of the CPM program, and potentially point to policy improvements.

The ISO's current source of year-ahead and month-ahead resource visibility is shown RA. The year-ahead and month-ahead showings of LSEs and the corresponding RA supply plans suppliers file with the ISO document a pool of committed capacity designed to be sufficient to meet projected load. Resources shown as RA can still experience outages or derates that affect their actual availability within any given month, but overall RA resources are the portion of the resource fleet the ISO has visibility into on a year-ahead and month-ahead basis.

The ISO does not have the same visibility into RA-eligible resources not shown as RA. The ISO has almost no visibility into the status of this portion of the RA-eligible fleet on a year ahead and month-ahead basis. This affects CPM implementation because such resources not shown as RA form the pool of potential CPM capacity. Conducting efficient and effective backstop procurement requires

⁷ Id at 167.

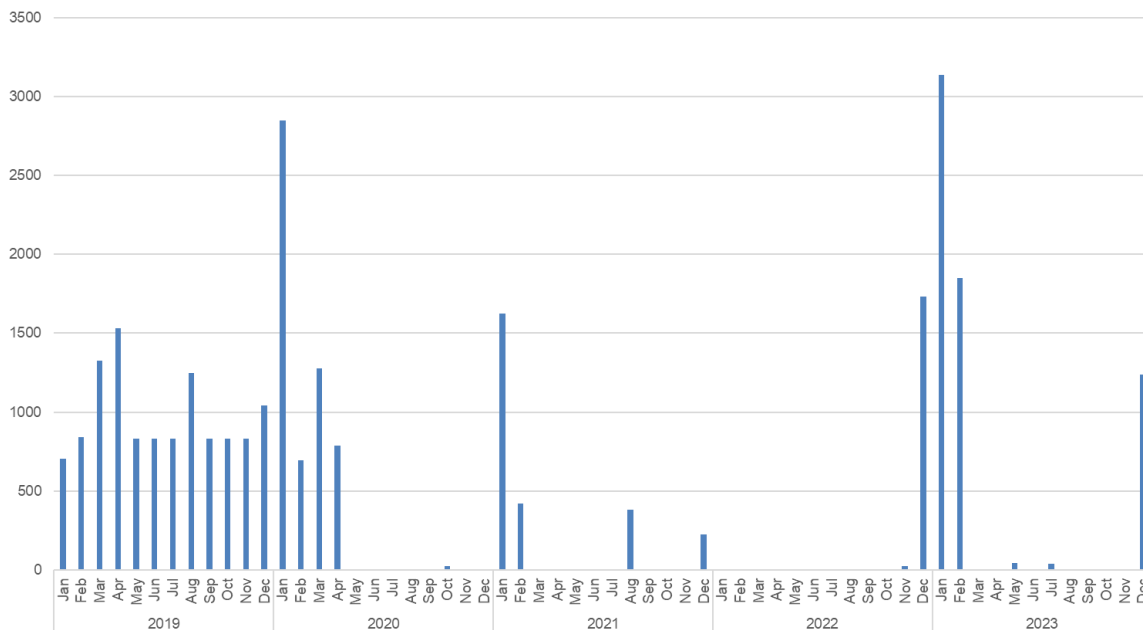
understanding what capacity is still available after accounting for all RA-shown resources. The CSP is designed to provide this understanding. However, as shown in Figure 3 below, bids into the CSP solicitations have dropped sharply since 2020.

When the offer pool is small enough, instances can and have occurred where not enough capacity is offered to meet the ISO's need for CPM procurement.⁸ In such cases, ISO personnel have had to reach out to suppliers in an attempt to identify capacity that is available for CPM procurement. Given the lack of visibility into RA-eligible capacity not shown as RA, the ISO currently has no way to eliminate RA-eligible capacity that is unavailable and targeting of the outreach is not as efficient as it could be with additional information.

The CAISO BAA resource fleet and market landscape have both evolved rapidly in this timeframe, and it is possible that the drop in bids is related to a broader trend in capacity commitments. Historically high prices in the bilateral RA market make it more likely that RA-eligible capacity previously bid into the CSP might be sold as RA instead. More capacity may be held back for substitution or sold outside the CAISO BAA. Such trends have implications for reliability planning and policy, but the ISO must be able to see these trends in order to take them into account.

Better visibility into the status of RA-eligible capacity not shown as RA will help the ISO conduct existing backstop processes more effectively and understand how any emerging trends should be incorporated into backstop program design.

Figure 3. Total Capacity Bid into the Competitive Solicitation Process by Month, 2019-2023 (MW)



⁸ See, for example, the ISO's [requested action](#) to suppliers for addition capacity offers outside the CSP process in August 2021.

Straw Proposal

To address the need for greater visibility into the portion of the RA-eligible CAISO BAA resource fleet not shown as RA, the ISO proposes new annual and monthly reporting requirements for RA-eligible capacity not shown as RA.⁹ Specifically, the ISO proposes that scheduling coordinators for generating resources report to the ISO what quantities of RA-eligible capacity falls into each of the following categories:

- **Sold outside the CAISO BAA.** This refers to RA-eligible capacity that has been committed outside of the CAISO BAA. As the Western RA Program and potentially other RA programs develop across the western US, there will be increasing opportunities for capacity inside the CAISO BAA to contract with entities outside the BAA. This is important information for the ISO to be aware of for both backstop and reliability planning reasons. Being contracted outside the BAA may affect a resource's ability to fulfill the obligations of a CPM contract, so outside contracting can affect the pool of capacity available for backstop procurement. Outside contracting also has implications for reliability studies, because resources located inside the CAISO BAA are considered available to help meet CAISO BAA load in most instances. Knowing which resources are committed elsewhere can improve the accuracy of reliability studies by avoiding overestimation of the resources actually available to meet CAISO BAA load.
- **Not shown due to being reserved for substitution.** This refers to RA-eligible capacity, whether contracted or not, that is not shown to the ISO in order to ensure compliance with RA substitution rules. The ISO notes that this category may evolve alongside substitution rule changes adopted in Track 2 of this initiative. However, in the context of the current substitution paradigm this category includes capacity associated with resource A in the following scenarios:
 - o The SC for resource A was contracted to serve as substitute capacity for resource B, controlled by a different SC.
 - o The same SC controls both resources A and B so there is no contract, but resource A is being used as substitute capacity for resource B.
 - o The SC for resource A is planning to sell resource A as substitute capacity for a resource controlled by another SC but does not have a contract in place yet.
- **Not shown due to potential unavailability.** This refers to RA-eligible capacity that, whether contracted for RA or not, is not shown to the ISO due to anticipated ambient derates or other outage events that suppliers believe might prevent it from operating. This includes known outages already reported in the Outage Management System (OMS).
- **Contracted to a CAISO BAA LSE but not shown.** This refers to RA-eligible capacity that is contracted to a CAISO BAA LSE but not shown as RA and does not fit under any of the categories above.
- **Not contracted.** This refers to RA-eligible capacity that is not under any kind of capacity contract and does not fit into any of the categories above.

This reporting would be done on the same timelines as the year-ahead and month-ahead RA showing processes. The ISO understands that some capacity may change status intra-month. The format of the reporting template will allow SCs to report status on a daily granularity, so SCs will be able to show intra-month status changes accurately. Additionally, each monthly report is meant only to be a snapshot in time. There will be no penalty if, upon outreach from ISO personnel to inquire about available capacity

⁹ This reporting requirement would fall under the ISO's existing tariff authority in Section 4.6.7.1.

for the CPM, current availability differs from the most recent monthly reporting so long as the initial submission represented a good-faith statement of the SC's view at the time. This reporting is meant to provide ISO personnel with additional visibility that can help them more effectively assess the reliability needs of the system and to efficiently identify available capacity in months where the CSP offers are insufficient to meet the ISO's CPM procurement need.

The ISO anticipates that these reporting requirements will be implemented in the CIRA platform alongside current RA reporting. The goal of this implementation approach is to make the reporting as easy as possible for SCs by leveraging a platform that is already familiar. For summer 2025, the ISO may issue an interim data request for similar information. This data request, if the ISO chooses to issue it, would provide ISO personnel with incremental visibility until the permanent CIRA implementation can be completed.

Finally, several stakeholders have expressed concern in previous RAMPD working group conversations and comments about whether reporting the status of non-shown capacity will impose any new availability requirements or offer obligations on that capacity. It will not. These reporting requirements will evolve alongside the RA program more broadly and could at some point in the future be used in additional ways such as collecting offers into the substitution pool approach being discussed in Track 2. These additional uses could carry obligations, but they would be policy changes in their own right and fully stakeholdered before adoption. The reporting proposed here is for visibility only and will not impose any new requirements on the capacity whose status is being reported.

Next steps

These proposed reporting requirements are already supported by authority granted in section 4.6.7.1 of the existing tariff. However, because the ISO is proposing a new ongoing process with specific requirements, the ISO sees benefit in documenting them in greater detail in the tariff. In light of this, Track 3A of the RAMPD initiative will go through the policy stakeholder process and the ISO will seek approval of the tariff revisions from the ISO Board of Governors later this year and through a filing with FERC. However, for this summer, the ISO will issue a data request to seek this information.

The ISO will host a virtual stakeholder meeting on May 27, 2025 from 9:00 – 11:00 am to discuss the key elements of this straw proposal. Please submit written comments on the straw proposal and stakeholder meeting by end of day on June 17, 2025.

Decisional Classification

Track 3A of this initiative concerns resource visibility; the straw proposal would create new annual and monthly reporting requirements for scheduling coordinators with RA-eligible capacity that is not being shown as RA in the given month or year. As explained above, the ISO plans to seek approval for the proposed changes from the ISO Board of Governors.

“The Board and the WEIM Governing Body have joint authority over any proposal to change or establish a tariff rule applicable to the WEIM/EDAM Entity balancing authority areas, WEIM/EDAM Entities, or other market participants within the WEIM/EDAM Entity balancing authority areas, in their capacity as participants in WEIM/EDAM...The scope of this joint authority excludes, without limitation, any other proposals to change or establish tariff rule(s) applicable only to the CAISO balancing authority area or to the CAISO-controlled grid.” – Charter for WEIM and EDAM Governance § 2.2.1.

The proposed tariff changes would not be “applicable to WEIM/EDAM Entity balancing authority areas, WEIM/EDAM Entities, or other market participants within WEIM/EDAM Entity balancing authority areas, in their capacity as participants in WEIM/EDAM.” They would be applicable only to the CAISO balancing authority area or to the CAISO-controlled grid. Accordingly, the proposed changes do not fall within the scope of joint authority.

In addition, the proposal falls outside the scope of the WEM Governing Body’s advisory role, which covers proposals to change or establish tariff rules that would apply to the real-time and/or day-ahead market but are not within the scope of joint authority. This initiative would not propose rules for the market.

This proposed classification reflects the current state of this initiative and could change as the stakeholder process moves ahead. Stakeholders are encouraged to submit a response in their written comments to the proposed classification of as described above, particularly if they have concerns or questions.