California ISO

Stakeholder Comments Template

On-Peak Deliverability Assessment Methodology Refinements

This template has been created for submission of stakeholder comments on the On-Peak Deliverability Assessment Methodology meeting that was held on June 11, 2026. The Stakeholder meeting presentation and other information related to this initiative may be found on the miscellaneous meeting webpage and the June 11 calendar event on the public calendar.

Upon completion of this template, please submit it to ISOStakeholderAffairs@caiso.com.

Submissions are requested by close of business on **June 25, 2026**

Submitted by	Organization	Date Submitted
Paulo Apolinario	*Bay Area Municipal Transmission Group (BAMx)*[1]	*June 25, 2026*

Please provide your organization's comments on the following issues and questions.

1. Please provide your organization's feedback on the On-Peak Deliverability assessment redlines and June 11 meeting discussion.

I. Introduction and General Position

The Bay Area Municipal Transmission Group (BAMx) appreciates the opportunity to comment on the CAISO's proposed refinements to the On-Peak Deliverability Assessment Methodology ("Revised Methodology"), posted on June 4, 2026, and discussed during the stakeholder meeting on June 11, 2026.

BAMx has been an active and consistent participant in the CAISO's deliverability methodology proceedings over the past decade. Throughout this engagement, BAMx's overarching position has been that the deliverability assessment methodology employs overly stringent assumptions that may trigger an excessive volume of

[1] The Bay Area Municipal Transmission group (BAMx) consists of the City of Santa Clara dba Silicon Valley Power and the City of Palo Alto Utilities.

Delivery Network Upgrades (DNUs) imposing billions of dollars in transmission costs on ratepayers without commensurate reliability benefits.

BAMx notes that the Revised Methodology is presented as a redline against the August 2022 version of the methodology document. However, many of the redlined changes—including the 10% DFAX threshold for 500 kV lines, the offshore wind treatment, the SSN scope reduction, the N-2 contingency provisions (Section 6.0), and the voltage and stability requirement—were already implemented in the April 11, 2024 version of the methodology document, which incorporated the outcomes of the January 2024 Final Proposal stakeholder process.[2] BAMx's comments below focus on the three genuinely new changes proposed in the June 2026 revision, along with BAMx's continuing concerns regarding fundamental methodology reform and governance.

Finally, BAMx notes that during the June 18, 2026 Demand and Distributed Energy Market Integration (DDEMI) Track 1 stakeholder call, the CAISO indicated that it must maintain previously granted deliverability, which is the reason it is not allowing demand response (DR) to export unless it has gone through the Transmission Plan Deliverability (TPD) allocation process. While BAMx appreciates the CAISO's concern with preserving existing deliverability allocations, resource deliverability could be preserved and expanded by undertaking a broader, structural reassessment of the deliverability assessment methodology. The CAISO should take this opportunity to consider whether the deliverability methodology itself needs to change to better reflect the ability of generation and load resources to reliably serve CAISO peak loads. A methodology that requires the aggregate output of all in-area generation, net of local load, to be simultaneously deliverable to the rest of the CAISO Control Area, regardless of whether such conditions are remotely plausible during actual peak-load events, imposes deliverability constraints that are increasingly disconnected from real-system reliability needs. As the resource mix continues to evolve and as load-side resources such as DR play a growing role in serving peak load, continuing to apply a deliverability methodology calibrated for a fundamentally different resource and load environment risks driving billions of dollars in unnecessary transmission upgrades without commensurate ratepayer benefit. BAMx urges the CAISO to initiate a holistic review of the deliverability methodology, in parallel with the refinements proposed in this initiative, so that the methodology better recognizes the reliability contributions of all resources serving CAISO peak loads on a comparable basis.

[2] CAISO, On-Peak Deliverability Assessment Methodology (for Resource Adequacy Purposes), April 11, 2024. See also CAISO, Final Proposal – Generation Deliverability Methodology Review, January 4, 2024, available at https://www.caiso.com/InitiativeDocuments/Final-Proposal-Generation-Deliverability-Methodology-Review-Jan-04-2024.pdf.

II. Demand Response Modeling: Questions and Concerns

A. The Proposed Policy Outcome Warrants Examination of Deliverability Assessment Methodology

The Revised Methodology adds demand response (DR) as a new resource type in Table 4.1, with the base case dispatch instruction to "turn on within the local study area corresponding to the group of proposed full capacity resources that are the focus of the base case."[3] The CAISO's June 11, 2026 presentation characterized this change as necessary to prevent deliverability from being "overallocated."[4]

During the June 11 stakeholder meeting, the CAISO clarified that modeling demand response in the deliverability study will effectively "occupy" deliverability—that is, DR will consume a portion of the available transmission headroom available for export out of the study area, thereby **reducing the deliverability capacity available for generation resources within the study area**. This clarification was not apparent from either the Revised Methodology document or the presentation slides, which described DR modeling in terms that could reasonably be interpreted as reducing net load (and thus easing the deliverability test). Instead, what appears would happen is that local generation that previously would have served load within the study area would now have less of their output assumed to serve the local load, thereby increasing the amount of their capacity that would need to be exported from the study area to retain the same level of resource adequacy capacity deliverability.

BAMx has reviewed the CAISO's engineering logic and acknowledges that it follows from a power-flow perspective within the framework of the existing deliverability methodology, though that broader methodology remains in need of comprehensive review. That is, because the deliverability test checks whether all capacity in a generation zone can simultaneously deliver output to the aggregate of load after the local load absorbs a portion of that generation output, reductions in local load would increase generation exports from the local area to the aggregate of load. The CAISO's Demand and Distributed Energy Market Integration (DDEMI) Track 1 Revised Straw Proposal, also posted on June 11, 2026, confirms this assessment, stating that "deliverability is finite and shared in the ISO BAA" and that resources relying on "general load" can "reduce deliverability available to other resources."[5]

Because the design of the CAISO Generator Deliverability Study methodology requires the aggregate generation output net of load in a given area to be simultaneously transferred to the remainder of the CAISO Control Area, the proposed policy outcome becomes problematic. Even though demand response enhances system reliability by reducing peak load during stressed conditions—precisely the conditions the deliverability test is designed to assess, the CAISO's proposed

[3] Revised Methodology, Table 4.1 (June 4, 2026).
[4] CAISO, "On-Peak Deliverability Assessment Methodology Refinements," Presentation, June 11, 2026, Slide 9.
[5] CAISO, Demand and Distributed Energy Market Integration: Track 1 Revised Straw Proposal, June 11, 2026, Section: ISO BAA Deliverability.

modeling of DR resources that improve system reliability would reduce deliverability available for generation resources, potentially triggering additional Delivery Network Upgrades to maintain deliverability. This creates a perverse outcome: a resource that helps the system is penalized in the planning framework. CAISO should reassess the deliverability methodology so that the reliability benefits provided by all resources can be recognized on a comparable basis.

Moreover, Table 4.1 appears to create an asymmetry that compounds this concern. DR consumes deliverability headroom in the base case but is not available to "scale down proportionally" with other capacity resources in the worst-case analysis (Steps 3–4). This means DR's impact on the test is maximized; it occupies deliverability space in the base case but cannot be backed down to create room when generators are ramped up. Unless BAMx is misconstruing the discussion during the June 11 stakeholder meeting, BAMx respectfully requests that the CAISO either correct this asymmetry or provide the engineering rationale for it.

B. BAMx Requests and Position

BAMx requests that the CAISO address the following before finalizing the Revised Methodology:

1. Has the CAISO quantified how many additional deliverability constraints or network upgrades would be triggered by the inclusion of DR in the study?
2. What is the engineering basis for treating DR as a supply-side resource that consumes deliverability headroom rather than as a load-side resource that reduces the need for deliverability?

BAMx has significant reservations about the inclusion of DR in the deliverability study if the effect is to make the test more stringent for generation resources. BAMx has consistently advocated for reforms that would reduce unnecessary transmission upgrades triggered by the deliverability methodology. Adding DR as a resource that consumes deliverability headroom would be inconsistent with the direction of reform that BAMx believes is needed. If the CAISO proceeds with DR modeling, BAMx encourages the CAISO to demonstrate, with empirical data, that the change does not result in additional DNUs, and to provide stakeholders with the specific MW assumptions and study area impacts before the methodology is finalized.

III. Base Case Dispatch: Lowering the Floor from 80% to 70%

A. The Proposed 70% Floor Is Not Supported by Either the LRA-Required PRM or the CAISO's Own 25% Estimate

The Revised Methodology lowers the base case dispatch floor for Existing and Proposed Full Capacity Resources from 80% to 70% of Pmax.[6] The CAISO explained during the June 11 meeting that this change reflects the increase in the planning reserve margin (PRM) from approximately 15% to approximately 25%.

BAMx questions the basis for using a 25 percent PRM as the benchmark for the dispatch floor reduction. The 25 percent figure is not a regulatory requirement adopted by any Local Regulatory Authority (LRA). Rather, it is a model-derived estimate of the PRM needed to meet a 0.1 LOLE for the 2026 June-September summer months (one day with an event in ten years) reliability target, produced through the CAISO's PLEXOS probabilistic simulation and multi-hour stack analysis.[7]

BAMx understands the rationale for seeking to align the dispatch floor with the current PRM. However, the arithmetic consequences are significant and should not be overlooked. Under the prior 80% floor, the maximum ramp-up from base case to worst-case dispatch was 20 percentage points (80% to 100% of Pmax). Under the proposed 70% floor, the maximum ramp-up increases to 30 percentage points. BAMx is concerned that this larger ramp may increase the likelihood that the deliverability test will identify binding constraints that would not have been found under the prior assumptions. The CAISO's own 2026 Summer Assessment reports that the load-weighted average PRM across all LRA RA obligations is 17.5 percent, with the CPUC—which has jurisdiction over approximately 90 percent of CAISO load—requiring an 18 percent PRM.[8] To BAMx's knowledge, no LRA has adopted or proposed a PRM of 25 percent for any compliance year.

BAMx has several concerns with using this model-derived figure to calibrate the deliverability methodology:

First, the Summer Assessment is an annual operational readiness tool, not a long-term planning standard. The CAISO describes its summer assessment methodology as having "transitioned from a solely deterministic evaluation of anticipated summer conditions to a probabilistic approach centered on operational situational awareness."[9] The deliverability methodology, by contrast, is a long-term planning tool that drives transmission upgrades costing billions of dollars and requiring 5–10+ years to construct. Calibrating a long-term planning methodology to an annual operational model output is inappropriate. Using the implied PRM derived from each year's summer assessment would lead to potentially widely varying dispatch floor levels.

Second, the 25 percent figure is derived from a resource portfolio that is materially broader than the set of resources subject to the deliverability test. The Summer Assessment's portfolio includes "all energy-only co-located solar resources relied upon to charge adjacent RA-eligible batteries," resources "contracted by entities without RA requirements, resources serving load outside CAISO, or resources that remain uncontracted," and resources whose contributions are subject to renewable

[6] Revised Methodology, Table 4.1 (June 4, 2026); cf. April 11, 2024 Methodology, Table 4.1 (80% to 95%).
[7] CAISO, 2026 Summer Loads and Resources Assessment, May 2026, Section 1.2, p. 13.
[8] Id. at p. 13.
[9] Id. at p. 2.

production profiles, operational constraints, and other modeling considerations.[10] Using a PRM derived from this expansive portfolio to make the deliverability test more stringent for the narrower set of resources actually seeking deliverability status creates a logical mismatch.

If the CAISO intends to align the dispatch floor with a reserve margin metric, BAMx submits that the appropriate benchmark is the actual PRM established by the LRAs—not a model-derived estimate from the Summer Assessment. Moreover, the arithmetic consequences of using 70 percent rather than 80 percent are significant. BAMx is concerned that adopting this change would increase the likelihood that the deliverability test will identify binding constraints that would not have been found under the prior or PRM-aligned assumptions, without adequate assessment of the costs and benefits of adopting such an approach.

B. Compounding Effect with Demand Response

The combination of a lower dispatch floor and DR consuming deliverability headroom compounds the stringency of the test. Each change independently may make the test more stringent; together, their effects could compound. A lower starting dispatch means more MW are available to ramp up in the worst-case analysis, while DR simultaneously reduces the transmission headroom available to absorb that ramp. BAMx is not aware of any analysis by the CAISO quantifying this combined effect.

C. BAMx's Position

BAMx does not oppose aligning the dispatch floor with current PRM levels in principle, but CAISO should: (1) explain why 70% was selected rather than the 80% level implied by the actual LRA load-weighted average PRM of 17.5%; (2) perform and share sensitivity analyses comparing the number and severity of deliverability constraints identified under 80%, 75%, and 70% floors; and (3) analyze the combined effect of the dispatch floor change and DR modeling.

IV. Proposed Resources for Local Reliability Needs (Note 2)

A. A Potentially Beneficial but Ambiguous Provision

The Revised Methodology adds a new sentence to Note 2 of Table 4.1: "Proposed resources may be turned on similar to existing resources, if they are identified in the resource portfolio and have been documented in the transmission planning process as meeting a local reliability need in lieu of a transmission upgrade."[11] This provision was not present in the April 11, 2024 version of the methodology. BAMx recognizes that this provision could be beneficial if it allows generation resources that displace

[10] Id. at p. 5.
[11] Revised Methodology, Note 2 to Table 4.1 (June 4, 2026).

transmission upgrades to be treated as existing resources in the base case, potentially reducing the need for additional DNUs.

B. Concerns

1. **"Reasonable Certainty" Standard Is Undefined.** The CAISO's June 11 presentation referenced "reasonable certainty" that a proposed resource will be completed as a condition for this treatment, but this standard is not defined in the Revised Methodology. CAISO should adopt clear standards/criteria for determining whether a resource will be available with reasonable certainty, such as meeting clear milestones, like obtaining an executed Power Purchase Agreement, achieving financial close, or construction commencement. Without clear criteria the determination would be subject to staff discretion, a concern BAMx has raised in prior initiatives.
2. **Risk of Circular Dependency.** If a proposed resource is dispatched like an existing resource in the base case, it creates deliverability headroom for other generators being studied. If that proposed resource subsequently withdraws from the interconnection queue, which is a well-documented and frequent occurrence given significant queue attrition rates, the deliverability allocations premised on its presence may be unsupported. BAMx requests that the CAISO explain how it would manage this risk and whether deliverability allocations would be revisited if the proposed resource does not reach commercial operation.

C. BAMx's Position

BAMx conditionally supports this provision as a step toward reducing unnecessary transmission upgrades, provided the CAISO establishes clear, transparent, and consistently applied qualification criteria and addresses the circular dependency risk. Without such safeguards, this provision may be difficult to apply consistently across study cycles.

V. The Methodology Should Be Subject to Tariff or BPM Provisions

BAMx reiterates its longstanding concern that the On-Peak Deliverability Assessment Methodology is not part of the CAISO tariff and is not subject to the Business Practice Manual (BPM) change management process. This is a staff-controlled document that:

- Directly drives billions of dollars in policy-driven transmission upgrade approvals. As BAMx documented in its comments on the 2025-2026 Draft Transmission Plan, the average cost of policy-driven transmission projects approved in the last five TPP cycles (since 2021-2022) has been approximately $2.6 billion per cycle, a dramatic increase from the average of $62 million per cycle in the preceding nine cycles.[12]

[12] BAMx Comments on CAISO 2025-2026 Draft Transmission Plan, April 29, 2026.

- Determines whether generation resources can obtain Full Capacity Deliverability Status (FCDS) or Partial Capacity Deliverability Status (PCDS) for resource adequacy purposes, directly affecting the RA market and procurement costs for California load-serving entities.
- Affects the cost allocation for Delivery Network Upgrades in the generation interconnection process, which is ultimately borne by transmission ratepayers.

The current refinement process illustrates the concern. The CAISO posted a redline document against the August 2022 version that commingled changes already implemented in April 2024 with the three genuinely new proposals, making it unnecessarily difficult for stakeholders to identify what are the actual proposed changes to current CAISO practices. The three genuinely new changes were identifiable only by conducting a line-by-line comparison of the June 2026 draft against the April 2024 version—a comparison the CAISO did not provide. BAMx respectfully suggests that providing a redline against the most recent operative version of the methodology—rather than the August 2022 version—would facilitate more productive stakeholder engagement.

Furthermore, the CAISO is alone among the major organized markets in maintaining its generation deliverability methodology entirely outside of either tariff or BPM governance. Each of PJM, MISO, NYISO, and ISO-NE has codified its generation deliverability methodology in either its FERC-approved tariff or in formal Manual/BPM-based governance subject to FERC oversight. For instance, PJM codifies its generation deliverability procedure in Manual 14B (Section 2.3 and Attachment C) and its resource adequacy methodology in Manual 20A; PJM Manuals are formal governance documents subject to a defined stakeholder change-management process, with material changes filed with FERC.[13] Similarly, MISO codifies the binding framework in Tariff Attachment X (Generator Interconnection Procedures) and Tariff Module E-1 (Resource Adequacy), with implementation detail provided in BPM-015 (Generation Interconnection, Appendix C: MISO Generation Deliverability Study Method) and BPM-011 (Resource Adequacy).[14]

In summary, BAMx recommends that the CAISO incorporate the deliverability assessment methodology into the CAISO tariff or, at a minimum, subject it to the BPM change management process, ensuring that changes are subject to formal stakeholder review, a comment-and-response matrix, and, where appropriate, FERC review.

[13] PJM Manual 14B: PJM Region Transmission Planning Process, Revision 59, Effective Date: April 22, 2026, Section 2.3. See https://www.pjm.com/-/media/DotCom/documents/manuals/m14b.pdf

[14] MISO Open Access Transmission, Energy and Operating Reserve Markets Tariff, Attachment X (Generator Interconnection Procedures); MISO Business Practices Manual BPM-015 (Generation Interconnection, Appendix C: MISO Generation Deliverability Study Method). See https://cdn.misoenergy.org/20230918%20PAC%20Item%2002c%20BPM-015%20Generator%20Interconnection%20Queue%20Reform%20Redlines630228.pdf