

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**California Independent System)
Operator Corporation)**

Docket No. ER22-1278-000

**MOTION TO INTERVENE AND COMMENTS
OF THE DEPARTMENT OF MARKET MONITORING
OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Pursuant to Rules 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“FERC” or “Commission”), 18 C.F.R. §§385.212, 385.214, the Department of Market Monitoring (“DMM”), acting in its capacity as the Independent Market Monitor for the California Independent System Operator Corporation (“CAISO”), submits this motion to intervene and comment in the above-captioned proceeding.

I. MOTION TO INTERVENE

DMM respectfully requests that the Commission afford due consideration to these comments and motion to intervene, and afford DMM full rights as a party to this proceeding. Pursuant to the Commission’s Order 719, the CAISO tariff states “DMM shall review existing and proposed market rules, tariff provisions, and market design elements and recommend proposed rule and tariff changes to the CAISO, the CAISO Governing Board, FERC staff, the California Public Utilities Commission, Market Participants, and other interested entities.”¹ As this proceeding involves CAISO tariff provisions that would affect the efficiency of CAISO markets, it implicates matters within DMM’s purview.

¹ CAISO Tariff Appendix P, Section 5.1.

II. SUMMARY

DMM supports most of the Resource Sufficiency Enhancements proposed by the CAISO in this proceeding.²

DMM supports the proposed enhancements to reduce the capacity from offline resources counted in the bid range capacity test. These enhancements will provide a more accurate assessment of capacity available in each balancing area for use by the Western Energy Imbalance Market (WEIM) optimization.

DMM also supports temporarily suspending the inclusion of inertia and net load uncertainty in the bid range capacity test, while the CAISO continues efforts to develop a better approach for incorporating uncertainty into the sufficiency test requirements.

DMM does not oppose the proposal to use e-Tag transmission data to limit how inertia awards are counted for the CAISO balancing area when performing the resource sufficiency evaluation. However, it is unclear to DMM why CAISO is not proposing to apply the same rule for all WEIM balancing areas. DMM recommends that the CAISO reconsider this limitation as part of a more comprehensive assessment of how imports should be counted in the resource sufficiency tests.

An upcoming CAISO stakeholder process will allow for more careful consideration and analysis of a full range of potential improvements to the resource sufficiency evaluation. The resource sufficiency evaluation was adopted at the beginning of the western energy imbalance market to incentivize balancing areas to make sufficient capacity available to meet their loads and deter “leaning” on other balancing areas to meet

² *Tariff Amendment to Implement Resource Sufficiency Evaluation Enhancements*, California Independent System Operator Corporation, Docket No. ER22-1278-000, March 11, 2022 (“Transmittal Letter”).

reliability needs – while still allowing economic transfers between areas. Further changes to the evaluation ultimately involve important policy decisions about the level of certainty in achieving this goal that is sought by market participants collectively. In addition to considering the methods for calculating available supply and uncertainty, stakeholders should also seek to gain consensus on the role of the resource tests and how to balance these against other considerations.

III. CAPACITY TEST COUNTING RULES

The proposed reduction in capacity counted from offline resources will improve accuracy of the capacity test

The CAISO proposes to reduce the capacity from offline resources that will be counted towards meeting a balancing areas' capacity test. Offline capacity will only be counted if the real-time market could have committed it. DMM supports these changes.

This enhancement will allow for a more accurate assessment of the amount of capacity made available in each balancing area for the WEIM optimization to utilize. The real-time market optimization cannot commit offline capacity with cycling times greater than 255 minutes. Even though this offline capacity is unavailable to the real-time market, currently the capacity test counts this capacity towards meeting the requirements if the supplier offers it into the real-time market. Preventing this significant source of capacity that was not actually available to the real-time market from counting towards capacity test requirements will increase the accuracy of the test.

CAISO's final proposal in the stakeholder process proposed some further enhancements to offline capacity that the capacity test would not count due to intertemporal constraints and the timing of bid submissions rendering the capacity unavailable for particular

hours.³ DMM recommends that CAISO continue to develop these and other more nuanced methods for only counting the capacity that suppliers actually made available. However, DMM supports the current proposal as an incremental improvement that avoids the significant inefficiencies that could arise from only counting online capacity, as discussed more below.

Only counting online capacity towards meeting the capacity test requirement would be detrimental to market efficiency

Some stakeholders have suggested the capacity test should only count the subset of capacity that the WEIM optimization chose to commit out of the entire pool of capacity that suppliers made available. This would reduce efficiency benefits gained from CAISO's real-time optimization being able to look forward more than four hours when making commitment decisions.

Capacity made available to the real-time market for the evaluation hour, which can feasibly be committed for that hour, may not be committed by the market optimization for economic reasons. When considering all offers across the WEIM footprint, the market optimization may determine it is more efficient to rely on less expensive capacity (potentially from a different WEIM balancing area) and to avoid committing, or to de-commit, the available capacity. The market optimization choosing to have this capacity offline does not mean the capacity was not made available.

DMM agrees with CAISO that not counting capacity that is offline, but that was made available, towards meeting the capacity test requirement would result in WEIM balancing areas making suboptimal commitment decisions and self-schedules in order to pass the test.

³ *EIM resource sufficiency evaluation enhancements phase 1 revised draft final proposal*, CAISO, December 16, 2021, pp 16-20:
<http://www.aiso.com/InitiativeDocuments/RevisedDraftFinalProposal-EIMResourceSufficiencyEvaluationEnhancements.pdf>

This could reduce the efficiency benefits relative to the market optimization making commitment decisions considering all available capacity throughout the broader WEIM footprint over the real-time market horizon.

DMM recommends further enhancements to how ramp-constrained capacity is counted in the resource sufficiency test.

The CAISO proposes to not incorporate any ramping constraints in the capacity test at this time. Instead, the CAISO proposes a configurable parameter in the market software that can reduce the amount of capacity available from specific resources based on data analysis. This approach reflects the fact that additional time is needed to develop and consider ways of determining whether and how capacity should be excluded from the test due to ramping constraints.

An offline resource that can be committed by the market optimization may not be able to reach full capacity in the time remaining after the start-up time because of ramping constraints. Online resources with slower ramp rates also may not be able to ramp to full capacity in the hour being evaluated. In some cases this may be because the scheduling coordinator did not make it available in time to be fully utilized during the hour being evaluated. But in other cases it could be because the optimization had previously held the resource dispatch down for economic reasons.

DMM recommends the CAISO continue to work on developing policy for differentiating between these two types of ramp-constrained capacity so that the CAISO can potentially remove the capacity unavailable because scheduling coordinators did not offer it in time to be fully utilized by the market.

IV. CAPACITY TEST UNCERTAINTY ADDERS

DMM supports temporary suspension of uncertainty adders in the capacity test

The CAISO proposes suspending the net load and inertia uncertainty components of the capacity test requirement. In an upcoming initiative, the CAISO and WEIM entities will more comprehensively consider what the capacity test requirements should be, and how uncertainty should be added onto those requirements. DMM supports this approach.

During the initiative on summer 2021 enhancements, there seemed to be general consensus among CAISO and WEIM entities that uncertainty should be added to the requirement to improve the capacity test's main goal of discouraging "leaning". Due to tight implementation timelines before the summer of 2021, CAISO proposed using the same uncertainty that was calculated for the flexible ramping product and to add that onto the capacity test requirement. This was also the uncertainty component used in the flexible ramping sufficiency test.

In prior reports and comments, DMM has explained in detail many major problems with the method the CAISO uses for calculating the uncertainty in these tests. However, there seemed to be general consensus among CAISO and WEIM entities that using this method for calculating an uncertainty component to add onto the capacity test requirement was better than not including any uncertainty adder.

In the first phase of this initiative, CAISO and stakeholders continued to contemplate adjusting the capacity test requirement to account for uncertainty. However, DMM believes that the discussion of various options has not yet been able to adequately consider their complexity, unintended consequences, or alignment with generally agreed upon principles for the design and intent of the tests. Therefore, DMM continues to

recommend that CAISO and stakeholders more comprehensively consider how the capacity and flexibility sufficiency tests should incorporate uncertainty in an upcoming stakeholder process.

WEIM balancing areas should develop consensus on the appropriate balance between protection from leaning and stringency of uncertainty adders

The resource sufficiency evaluation was adopted at the beginning of the western energy imbalance market to incent balancing areas to make sufficient capacity available to meet their loads and to deter “leaning” on other balancing areas to meet reliability needs – while still allowing economic transfers between areas. However, there is not an objectively correct answer to what this load and resource availability uncertainty adder included in capacity requirements should be.

On the one hand, increasing the capacity test requirement uncertainty adders will create more incentives for WEIM areas to procure more capacity in advance of the real-time market and will reduce the potential for “leaning”. On the other hand, it would be prohibitively expensive to meet requirements and resource-specific counting methodologies that would ensure each balancing area would be able to meet its full imbalance requirements 100 percent of the time with just the resources it made available to the real-time market.

The question of how to define an adder onto the capacity test requirement to account for load and resource availability uncertainty is a policy question that should be answered through debate and consensus amongst the balancing areas participating in WEIM.

V. LOAD BIAS IN THE SUFFICIENCY TESTS

DMM supports not adding load bias into the capacity test at this time

CAISO operators regularly use large adjustments to the hour-ahead and 15-minute market load forecasts over peak net load hours in order to create ramp to help address uncertainty in the net load forecast. Some stakeholders asked CAISO to add this load bias onto the capacity test requirement as part of this Phase 1a filing.

As explained more below, including load bias in the test requirement does not align with DMM's understanding of principles that have guided the design of sufficiency test requirements. Including load bias in the test requirements could require some significant changes in CAISO balancing area operational practices, or significant changes in how intertie bids and schedules are counted in the resource sufficiency test. Therefore, DMM has recommended that CAISO not incorporate the load bias into the capacity test requirement in this filing. Instead, the CAISO should only consider that possibility as part of a more comprehensive assessment of how the capacity and flexibility tests for all balancing areas should incorporate uncertainty in an upcoming stakeholder process.

Test requirements should not be based on quantity of capacity a balancing area tries to procure through mechanisms such as the load bias.

Individual balancing areas may want to procure capacity in excess of the standards established by the WEIM resource sufficiency tests. Non-CAISO entities participating in the energy imbalance market can utilize bilateral import transactions before base schedules are due to procure capacity in excess of the resource sufficiency test requirements. The CAISO balancing area currently relies on load bias to procure imports that operators would want in order for the balancing area to have capacity in excess of the test requirements. Basing the test on the amount of capacity a balancing area tries to

procure (through load bias or other means) does not seem consistent with the intent of the test. On the contrary, this could provide a disincentive to procure additional capacity through the load bias or other means.

The CAISO balancing area currently procures capacity in excess of its load forecast to address potential load and resource uncertainty by biasing the load forecast in hour-ahead and 15-minute market processes, and through out-of-market purchases. Imports that scheduling coordinators make available as hourly block bids at CAISO's interties are a significant capacity source for the CAISO balancing area. Rather than counting all of these available import bids towards meeting the capacity test requirement, the test only counts the subset of imports that receive schedules in the hour-ahead market. Therefore, adding load bias—whose intent is to secure excess capacity such as hourly block import bids—onto the test requirements while not counting all of the available import bids towards meeting that requirement could cause significant unintended consequences. For example, this could incentivize CAISO balancing area operators to significantly increase out-of-market import purchases rather than using load bias to procure the cheapest available capacity.

DMM appreciates that CAISO has moved contemplating if or how load bias should be incorporated into the tests to an upcoming stakeholder process. We recommend that this aspect of the initiative incorporate a broader assessment and much more careful consideration of how uncertainty and intertie bids and schedules should be considered in the tests for all WEIM balancing areas.

DMM's understanding is that a key goal of the resource sufficiency test design is to provide objective criteria for bid range capacity and flexible ramping tests that

participating balancing areas can agree are sufficient for concluding that an area is not using the energy imbalance market to “lean” on other balancing areas. The question of how to define the requirements to account for load and resource availability uncertainty is a policy question that can only be answered through discussion and consensus among the balancing areas participating in WEIM.

VI. INTERCHANGE TAGGING REQUIREMENTS

CAISO intertie schedules without a transmission e-tag by T-40 will not be included in sufficiency tests

The CAISO proposes an additional restriction on the amount of an import award that will be counted towards meeting the CAISO balancing area’s sufficiency tests. The amount of an import award that is in excess of the amount of transmission on its e-Tag at forty minutes prior to the hour (T-40) will not be counted towards meeting the sufficiency tests. The CAISO also proposes to not count export awards in excess of the T-40 transmission e-Tag towards the sufficiency test requirements.

DMM does not oppose these changes as interim measures. The CAISO enforces significant penalties on hourly interchange awards that do not have transmission tagged by T-40. Therefore, interchange awards that have not tagged their transmission by T-40 are unlikely to have acquired transmission by that time. It seems reasonable to not count them in the CAISO balancing area’s sufficiency tests.

CAISO’s explanation for only applying this e-tagging rule to the CAISO balancing area is not clear. The Transmittal Letter explains that other balancing areas “...have the opportunity to reflect their expected bilateral interchange schedules accurately through their base schedules up until when the final RSE is run at T-40.” The CAISO further states they have no indication that other balancing area interchange schedules are “...open to

the same type of bidding as CAISO's intertie market bidding and scheduling process that may raise concerns about undelivered awards."⁴

As we described above, it seems reasonable for the tests to utilize an objective criteria that could indicate if an import into a balancing area is unlikely to be delivered, and then to not count an import towards meeting the area's resource sufficiency requirement if the import does not meet that criteria. The factors that CAISO describes as differentiating non-CAISO WEIM balancing areas from the CAISO balancing area do not indicate that base schedule imports into non-CAISO WEIM areas should be considered as inherently reliable. In fact, CAISO has shown that many non-CAISO WEIM areas have a significant amount of base schedule imports that do not deliver.⁵ CAISO should clarify why it is not proposing to apply the e-tagging requirement to all WEIM balancing areas.

DMM believes the CAISO's policy for counting imports towards meeting the capacity test warrants more comprehensive consideration. DMM appreciates that the CAISO has committed to more carefully considering how to count imports in its upcoming stakeholder process. DMM recommends that this aspect include a thorough reconsideration of how intertie bids and schedules should be treated in the capacity test. For example, for balancing areas such as CAISO that use the real-time market to schedule import awards out of the set of available import bids, it may be more appropriate to start by considering all import bids as potentially counting towards the capacity test and

⁴ Transmittal Letter, p. 20.

⁵ *Analysis of the intertie deviation adder used in the capacity test*, CAISO, October 6, 2021, pp. 20-26: <http://www.caiso.com/InitiativeDocuments/Analysis-IntertieDeviationAdderUsed-CapacityTest.pdf>

then determining the subset of those bids to not count due to transmission constraints or uncertainty.

VII. CONCLUSION

DMM respectfully requests that the Commission afford due consideration to these comments as it evaluates the proposed tariff provisions before it.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service lists in the above-referenced proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 1st day of April, 2022.

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