



Memorandum

To: ISO Board of Governors and Western Energy Imbalance Market Governing Body
From: Anna McKenna, Vice President, Market Design and Analysis
Date: July 12, 2023
Re: **Decision on withdrawal of WEIM base schedule submission deadline**

This memorandum requires ISO Board of Governors and WEIM Governing Body action

EXECUTIVE SUMMARY

Management proposes to no longer pursue a previously approved enhancement to create a new final WEIM resource sufficiency evaluation (RSE) at thirty minutes prior to the hour (T-30). Management committed to start a process to consider this enhancement and was committed to make the change if doing so does not jeopardize market performance and ability to execute various real-time market requirements. Consistent with this commitment, Management requested WEIM Governing Body and Board of Governors authority to move forward with this possible change, while the ISO continued to consider the feasibility of such a change. In December 2020 the WEIM Governing Body and ISO Board of Governors approved the WEIM Base Schedule Submission Deadline proposal to move the final base schedule deadline from forty minutes prior to the hour (T-40) to T-30, with the final RSE occurring immediately following the T-30 submission deadline. Consistent with its commitment, Management also filed tariff language enabling such a change should it be feasible. In April 2021, the Federal Energy Commission issued an order accepting the tariff changes associated with this enhancement.

The purpose of this enhancement was to more accurately incorporate variable energy resource forecasts and to better accommodate Bonneville Power Administration's (BPA) participation in the WEIM since a subset of their power purchase agreements can be scheduled up to 30 minutes prior to the hour. The ISO previously committed to explore the feasibility of supporting base schedule submissions 30 minutes prior to the hour in the EIM implementation agreement with BPA.¹ The ISO fulfilled this commitment

¹ [Energy Imbalance Market implementation agreement with Bonneville Power Authority](#)

through the previous stakeholder and regulatory approval process to consider and explore the ability to include an additional base schedule submission deadline at T-30.

During development of this enhancement in 2020, stakeholders expressed concerns that the enhancement might not be feasible once the Flexible Ramping Product (FRP) enhancements were implemented and the real-time market optimization became even more technologically complex. Stakeholders agreed that the FRP enhancements contribute greatly to market efficiency and enhance the reliability of the real-time market solution. In response to stakeholder concerns, Management sequenced the deployment of this enhancement following that of the FRP refinements to ensure this enhancement would still be feasible given the additional requirements put on the real-time market with the FRP enhancements.² Management reiterated its commitment to only implement the T-30 enhancement if testing indicated that the enhancement would be feasible after FRP deployment.³ Following the implementation of FRP refinements, testing conducted by the ISO has shown that such a timeline change is not feasible given the totality of the requirements imposed on the real-time market.

Joint ISO Board of Governors and WEIM Governing Body motion:

Moved, that the ISO Board of Governors and WEIM Governing Body approve the revisions to the WEIM base schedule submission deadline as described in the memorandum dated July 12, 2023; and

Moved, that the ISO Board of Governors and the WEIM Governing Body authorize Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the change proposed in this memorandum, including any filings that implement the overarching initiative policy but contain discrete revisions to incorporate Commission guidance in any initial ruling on the proposed tariff amendment.

DISCUSSION AND ANALYSIS

The results of the WEIM RSE serve as an input that determines both potential WEIM entity transfer limits and flexible ramping product requirements in the subsequent ISO fifteen minute market (FMM). Specifically, the results of the final binding WEIM RSE serve as an input of the FMM run for the first fifteen minute interval of the operational hour. The result of the final binding WEIM RSE, whether conducted at T-40 or T-30, does not change the time by which this market run needs to be completed; rather it serves as a function to determine how much time the optimization has to complete.

² [December 2020 Memorandum to EIM Governing Body for Decision on EIM Base Schedule Submission Deadline Proposal](#) (page 4)

³ [EIM Base Schedule Submission Deadline Draft Final Proposal, November 2020](#) (page 4)

Implementing a final binding WEIM RSE at T-30 effectively removes approximately ten minutes of time available to solve the subsequent FMM. Instead of having approximately 16 minutes to run the market, the ISO would have six minutes. The primary benefits of moving this timeline were to more accurately incorporate variable energy resource forecasts as well as better represent BPA power purchase agreements. Consistent with the ISO's commitment to explore supporting this functionality the ISO recognized the ability to solve the FMM within this truncated timeline could prove challenging when considered in concert with parallel market enhancements. To address this concern, Management proposed to implement the T-30 WEIM RSE after the implementation of the FRP refinements, but no later than October 1, 2023 to ensure that there would continue to be sufficient time to run the market.⁴ Further testing conducted by the ISO revealed that the FRP refinements added approximately 90 seconds to the expected solution time of the FMM. Management has determined that T-30 timeline change is not feasible given this FRP changes and all of the requirements put on the real-time market. Management is not confident it will be able to regularly solve the FMM run in the approximate six minutes of time necessary to support the later base schedule submission deadline. FRP refinements enhancements are critical to ensuring both a more accurate calculation of net-load uncertainty and the ability to meet that uncertainty in the real-time market through deliverable flexible capacity. Management believes that more accurately ensuring uncertainty can be met provides broader reliability and market efficacy to the real time market as a whole. As a result, Management proposes to no longer pursue implementation of a T-30 WEIM RSE because of the risk it poses to the ISO's ability to solve the FMM in a timely manner.

POSITIONS OF THE PARTIES

The ISO held a stakeholder call on June 15, 2023 to inform stakeholders of the proposed change, provide detailed rationale for the withdrawal of the T-30 WEIM RSE, and respond to stakeholder questions and concerns.

Following the stakeholder call, BPA and NV Energy submitted written comments. In their comments, BPA and NV Energy expressed their disappointment with the ISO's proposed change, noting that the lack of an additional RSE at T-30 potentially reduces the accuracy of the test. Both submitted revised comments to clarify that, although disappointed this could not be accomplished, they do not object to the removal of this functionality. BPA clarified that it is not asking the ISO to continue exploring changing the submission deadline. While disappointed, BPA understands that the ISO has determined such a change to be computationally infeasible, and encourages the ISO to balance continued improvements to the accuracy of the T-40 processes with other high

⁴ This enhancement was accepted by FERC with an October 2021 effective date (<http://www.caiso.com/Documents/Apr30-2021-OrderAcceptingPart-RejectingPart-TariffRevisions-EnergyImbalanceMarket-ER21-955.pdf>), and is currently targeted for an October 2023 effective date following two one-year extensions filed and accepted by the FERC.

priority initiatives. NV Energy expressed its appreciation for the ISO's commitment to working with NV Energy and all stakeholders to better understand concerns over the newly implemented net-load uncertainty tool, to further analyze whether the observed variability reflects uncertainty that actually materializes, and to consider necessary changes after the evaluation is complete.

Management greatly appreciates these clarifications because Management's prior commitment to provide this additional flexibility was premised on the determination that it would be physically feasible to execute the market runs with all the updates it intended to make at the time this change was also proposed. Now that we have completed the FRP enhancements, further analysis has shown that this functionality cannot be implemented at T-30 without significant impacts to other market processes. But for these limitations, Management would have made the change. Management looks forward to working with stakeholders on future market enhancements that further the benefits of the WEIM.

CONCLUSION

As a result of market enhancements implemented following the approval of the WEIM Base Schedule Submission Deadline proposal in December 2020, Management has determined it is unable to support the T-30 WEIM RSE included in the proposal. Management proposes to withdraw its previously approved tariff revisions related to moving the base schedule submission deadline and conducting a WEIM RSE at T-30.