

Memorandum

To: ISO Board of Governors

From: Eric Hildebrandt, Executive Director, Market Monitoring

Date: December 9, 2020

Re: Department of Market Monitoring update

This memorandum does not require Board action.

EXECUTIVE SUMMARY

This memo provides comments by the Department of Market Monitoring (DMM) on three proposals being presented to the Board for approval.

- Energy storage and distributed energy systems phase 4
- EIM base schedule submission
- Real time settlement review

DMM supports all three of these proposals, which represent significant improvements in the current market design.

Energy storage and distributed energy systems phase 4

DMM supports the ISO's Energy Storage and Distributed Energy Resources – Storage Default Energy Bid Final Proposal. DMM supports the ISO's overall direction to apply market power mitigation to battery resources, and views the ISO's proposed energy storage default energy bid (DEB) as a reasonable and conservative initial step to mitigating energy storage resources.

While there is not currently a significant amount of battery capacity participating in the ISO markets, batteries continue to be sited in areas that are frequently downstream from uncompetitive constraints (or within transmission constrained load pockets). As battery capacity increases on the system and continues to replace traditional generation capacity in local areas, it will be increasingly important that batteries in uncompetitive locations be subject to energy bid mitigation.

In the Final Proposal, the ISO adopts modifications that were first presented in the Draft Final Proposal at the recommendation of the Market Surveillance Committee (MSC), as well as one additional modification. As DMM noted in earlier comments, the proposed storage DEB framework has a number of simplifications that may overestimate the cost of energy

storage resources.¹ In addition, DMM believes that the changes first presented in the Draft Final Proposal based on the suggestions of the MSC have some inconsistency with the MSC's logic which the ISO used to justify these changes.²

DMM supports the ISO's proposed energy storage DEB as an incremental improvement to the current market design. Currently, these resources are exempt from mitigation. A DEB that may overestimate costs is still an improvement to no mitigation. However, it is important for the ISO and stakeholders to commit to continuing development and refinement of DEBs for storage resources in future initiatives.

EIM Base schedule submission

DMM supports the proposed changes in the Western EIM Base Schedule Submission Deadline Draft Final Proposal. The ISO proposes two main changes. The ISO proposes moving the base schedule submission deadline closer to the beginning of the fifteen-minute market run. The ISO also proposes allowing start-up energy to be included in base schedules so that this energy can count towards meeting the resource sufficiency evaluation.

Moving the submission deadline will allow greater flexibility for Western EIM participants to take actions to pass the sufficiency tests—and thereby avoid the resulting restrictions on Western EIM transfers. Including start-up energy in base schedules will increase the accuracy of the resource sufficiency tests and could reduce uninstructed imbalance settlements. Thus, the proposal will provide significant improvements in EIM market rules.

A potential bid cost recovery issue could arise because the ISO will include start-up energy in base schedules but is not going to model this start-up energy in its real-time market dispatches. In the absence of special settlement provisions, the bid cost recovery calculation would treat the difference between this start-up energy base schedule and its real-time energy dispatch as an energy buyback (with negative market revenue) in the fifteen-minute market without a corresponding bid cost decrease. This could inflate bid cost recovery payments.

It is DMM's understanding that the ISO's policy intent is for bid cost recovery calculations to not include these negative market revenues. The ISO's implementation and policy teams have confirmed that settlements will not calculate any Expected Energy for the difference between the start-up energy in base schedules and real-time market dispatches. This

¹ *Comments on ESDER 4 Draft Final Proposal*, p. 3-4, Department of Market Monitoring, June 18, 2020. <http://www.caiso.com/InitiativeDocuments/DMMComments-EnergyStorageDistributedEnergyResourcesPhase4-DraftFinalProposal.pdf>

² *Comments on ESDER 4 – Storage Default Energy Bid Final Proposal*, pp. 2-3, Department of Market Monitoring, November 12, 2020. <http://www.caiso.com/Documents/DMMComments-EnergyStorageandDistributedEnergyResources-StorageDefaultEnergyBidFinalProposal-Nov122020.pdf>

special provision should prevent base schedule start-up energy from inflating bid cost recovery payments. The ISO will also calculate uninstructed energy for these start-up periods as the difference between the base schedule energy and metered output. This should prevent a generator from getting paid imbalance energy for output up to its base schedule

Real time settlement review

DMM supports the three proposals. The first proposal specifies that changes to base schedule transfers after the base schedule submission deadline will be settled at the locational marginal price of each imbalance. This initiative has revealed that these imbalances have not been getting settled on the locational marginal price. They have been allowed to not settle in the market at all or to settle at a different price than LMP, such as the average of the price between two balancing areas. We appreciate that this error was identified and we support the ISO fixing it now because, as the ISO's papers demonstrate, inequitable settlement issues will arise if imbalances are settled at a price other than the locational price.

The second proposal allows EIM entities who must derive their load through generation and intertie meters the option to not settle unaccounted for energy. For such entities, unaccounted for energy is not a very relevant metric. DMM has not thought of significant issues with allowing these entities to not settle unaccounted for energy. Therefore, given that entities have expressed that this option would be helpful for them, DMM supports the proposal.

The third proposal changes the calculation that adjusts the cost allocation for real-time bid cost recovery uplift costs for EIM transfers. DMM agrees with the ISO that the proposed changes should better align the allocation of this uplift with its causes. DMM also expects the proposed changes to reduce potential incentives for generators to inflate bid cost recovery.