Comments on Price Formation Enhancements
Balancing Authority Area-level Market Power Mitigation Working Group Discussions on November 6 and 20, 2024

Department of Market Monitoring

December 13, 2024

Overview

The Department of Market Monitoring (DMM) appreciates the opportunity to comment on the working group discussions for Price Formation Enhancements Phase 2: Balancing Authority Area-level Market Power Mitigation (BAA-level MPM). DMM continues to support a grouping mechanism for BAA-level MPM. This discussion addresses DMM's recommendation that that the structural tests incorporated in the WEIM market power mitigation procedures be revised to reflect the increase in structural competitiveness that has resulted from the expansion of the WEIM footprint and transmission between different BAAs. However, the proposal to mitigate only pivotal suppliers, and to implement an impact test to trigger mitigation, may have potential market implications that warrant careful consideration and further discussion. We offer additional detail in the comments below.

Comments

BAA-level MPM grouping approach

During the November 6, 2024 working group meeting, the ISO presented the rational for a grouping approach to BAA-level MPM. The ISO believes a grouping approach would more accurately assess the structural competitiveness of the market, reduce potentially unnecessary mitigation, and better reflect actual market conditions and competitive dynamics. DMM generally agrees with these points and supports the ISO's exploration of grouping approaches to BAA-level MPM.

The ISO also presented an initial concept for a potential grouping algorithm during the November 6 meeting. At a high level, the grouping algorithm presented would group BAAs with equal marginal energy costs (MEC), sort them in descending order of cost, and determine group competitiveness using a residual supply index (RSI) test. This approach offers two key improvements in the MPM process: (1) BAAs within the same MEC group are tested together as opposed to individually, and (2) BAAs deemed uncompetitive are tested with lower MEC groups that they have transfer capability with to determine a competitive LMP.

DMM commends the ISO for developing a detailed grouping algorithm and presenting it with plenty of time for discussion within the working groups. DMM continues to support implementing a grouping mechanism to test the competitiveness of groups of BAAs.[1] Testing BAAs together, rather than individually, may reveal that the group as a whole is competitive, and avoids unnecessarily subjecting individual non-competitive BAAs to mitigation.

[1] *Comments on Price Formation Enhancements September 14, 2023 Working Group*, Department of Market Monitoring, October 4, 2023: https://www.caiso.com/documents/dmm-comments-on-price-formation-enhancements-sep-14-2023-workinggroup-oct-10-2023.pdf

The specific algorithm that the ISO presented seems sensible, and could be an improvement that may avoid the pitfalls of earlier proposed grouping approaches.[2] It makes sense to group BAAs based on MEC and to consider transfer capability when determining competitive LMPs. At this point, DMM recommends further discussion about the grouping algorithm, additional detailed examples of how the algorithm would function in different scenarios, and consideration of whether any changes like potentially sorting the BAA groups from low MEC to high will affect mitigation frequency and competitive LMP formulation.

Pivotal supplier grouping and mitigation

During the November 20 policy development working group, the ISO presented rationale for subjecting only suppliers that could be part of a pivotal group to mitigation, rather than all suppliers in uncompetitive BAAs. The ISO clarified that pivotal suppliers are just the top three net seller portfolios in a group of BAAs being tested, whereas the set of suppliers that could be part of a pivotal group may include non-pivotal suppliers that could potentially exercise market power.[3] The ISO argues that while some non-pivotal suppliers may be able to exert market power, mitigation of some non-pivotal suppliers may be overly restrictive.[4]

An important aspect of this proposal is the identification of the pivotal group to subject to mitigation. One option is to define the group based on how mitigation is done today, where the largest three net seller affiliate groups in a BAA are deemed pivotal and the rest are non-pivotal. With this approach, only the top three net seller affiliate groups would define the pivotal group subject to mitigation. DMM does not view this as a workable approach when only the top three pivotal suppliers are subject to mitigation. There can be multiple third affiliate groups for whom, when supply is grouped with the two largest affiliate groups, would form additional pivotal groups cause the BAA to test uncompetitive. Failing to mitigate each of these additional pivotal supply groups could result in unmitigated market power.

To address the possibility of additional pivotal supply being unmitigated, the ISO presented an iterative method to determine all pivotal groups by starting with a pivotal group of the three largest suppliers, and iteratively replacing the third supplier with the next largest supplier. The suppliers in each of the pivotal groups are mitigated, while the last added supplier to result in a non-pivotal group, and any smaller suppliers, are not mitigated. While this approach may be more workable, DMM believes there is additional discussion and analysis needed to ensure that such an approach does not create unintended adverse incentives or unintentionally allow continued exercise of market power in some situations. A shift in behavior could result if some suppliers know their resources will not be mitigated in uncompetitive conditions due to relative portfolio size. Unintended consequences could result, if only in extremely specific (and perhaps difficult to predict) system conditions.

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[2] *Comments on the 11-16-2023 Price Formation Enhancements Working Group*, Department of Market Monitoring, December 18, 2023: https://www.caiso.com/documents/dmm-comments-on-price-formation-enhancements-nov-16-2023-working-group-dec-18-2023.pdf

[3] *Price Formation Enhancements – Enhancing BAA-Level LMP: Pivotal Suppliers and Impact Thresholds*, California ISO, November 20, 2024, p. 20: https://stakeholdercenter.caiso.com/InitiativeDocuments/Presentation-Price-Formation-Enhancements-Nov20-2024.pdf

[4] Ibid, p. 20-21

Impact test

A second topic discussed in the ISO's November 20 working group meeting was the potential of implementing an impact test as part of the BAA-level MPM framework. While all resources in uncompetitive areas are subject to mitigation under the current MPM approach, an impact test would mitigate bids in uncompetitive areas only if they are both above competitive levels, and affect prices above a predetermined threshold.

DMM appreciates the ISO's effort to find a balance between insufficient mitigation that could allow exercise of market power, and mitigating too much, potentially in instances where market power may not be a concern. DMM also understands that impact testing is used as part of mitigation approaches employed in other ISO/RTO markets. However, in the context of CAISO's current MPM design, an impact test may not be necessary to achieve these goals.

Further, DMM notes that the use of an impact test to trigger mitigation would effectively allow the exercise of market power up to a pre-defined level. DMM believes careful consideration should be taken when determining what level of price impact would be deemed appropriate. DMM notes that default energy bids used in mitigation already include a minimum 10 percent adder above estimated costs, and that other elements of default energy bids are designed to ensure that they meet or exceed actual marginal or opportunity costs. In addition, default energy bids are not used when these are lower than competitive market prices set by the system wide marginal prices plus congestion on competitive constraints. All these elements of the ISO's current approach are designed to ensure that mitigation is not applied unless it may have a significant impact on actual prices.

DMM understands the main argument for adding an impact test is to lower the frequency of mitigation to only instances where there would be "meaningful" price effects. While reducing the frequency of mitigation is a reoccurring theme in the BAA-level MPM working groups, DMM's analysis shows that the frequency that bids are actually capped by mitigation and that this mitigation effects market dispatch is very low. A recent analysis of 2023 WEIM data shows the actual impact of mitigation is very limited compared to the amount of bids that are subject to potential mitigation based on the structural pivotal supplier tests used as the initial market power screen.[5]

Stakeholders have also argued that energy-limited resources need a means to price themselves out of the market, in order to reflect opportunity costs that DEBs may not accurately reflect. The ISO provides multiple mechanisms to allow resources to reflect operational and opportunity costs in their bids and competitive reference levels. These include default energy bid (DEB) opportunity cost adders, other adders incorporated into DEB prices, hydro DEBs that include generous adders up to 40 percent and

[5] *Comments on Price Formation Enhancements: Discussion Paper and Stakeholder Recommendations*, Department of Market Monitoring, October 14, 2024: https://www.caiso.com/documents/dmm-comments-on-price-formation-enhancements-discussion-paper-oct-14-2024.pdf

reflect intertemporal geographic opportunity costs and short-term energy limitations, and an option to negotiate a negotiated DEB (NDEB).[6]

If stakeholders find current estimates of costs used in mitigation to be inaccurate, DMM recommends enhancements to these estimates, instead of developing an approach that essentially allows market power to be exercised by all resources up to some administratively determined threshold above the minimum 10 percent incorporated in the current approach.

[6] DMM notes that the hydro DEB was developed with extensive input from the stakeholder community in the 2018/2019 Local Market Power Mitigation Enhancements stakeholder initiative. This DEB was specifically designed to capture many of the opportunity costs faced by hydro resources. Regarding storage resources, DMM believes there is a need to refine the storage DEB to better reflect opportunity costs that changes throughout the day. This will likely result in a higher DEB in some hours, and a lower DEB in others, but should lead to a more accurate representation of costs faced by storage resources. The ISO just launched a new initiative, the Storage Design and Modeling Initiative, where DMM understands the topic of storage DEB enhancements is in scope.