



Memorandum

To: ISO Board of Governors

From: Benjamin F. Hobbs, Chair, ISO Market Surveillance Committee

Date: October 19, 2016

Re: Briefing on MSC activities from August 16 to October 8, 2016

This memorandum does not require Board action.

During the time interval covered by this memorandum, members of the Market Surveillance Committee held a general session meeting of the MSC on September 19, 2016. In preparation for the upcoming November 18, 2016 general session meeting, MSC members have reviewed materials and held discussions with ISO staff on several upcoming initiatives to be discussed at that meeting.

The first section of this memorandum presents some comments concerning the decision by the ISO not to propose at this time a decrease in the bid floor from $-\$150/\text{MWh}$. These comments are offered by individual members of the MSC; they are not a formal Opinion (which can only be submitted after posting and a public vote), and they do not necessarily represent a consensus among the members.

The discussions that took place during the September 19, 2016 general session meeting are summarized in the Section 2 of this memorandum.

1. Comments on Decreasing the Bid Floor Below $-\$150/\text{MWh}$

The following are individual opinions expressed by members of the MSC, and do not represent a formal Opinion of the MSC.

In the original Draft Final Proposal,¹ the ISO proposed to reduce the bid floor from $-\$150/\text{MWh}$ to $-\$300/\text{MWh}$ as part of an effort to incent more flexible downward bidding by resources. The present bid floor is the result of the Federal Energy Regulatory Commission accepting in December 2013 the ISO's proposal to lower the bid floor to $-\$150/\text{MWh}$ from the previous floor of $-\$30/\text{MWh}$.

¹California ISO, *Self-Schedules Bid Cost Recovery Allocation and Bid Floor, Draft Final Proposal*, Aug. 11, 2016.

In general, a further lowering of the bid floor would be consistent with the MSC's previous expressions of strong support for relying more on the ISO's spot markets than on capacity markets to incentivize flexibility.² Members of the MSC believe that reducing the bid floor should promote more flexible bidding. Self-scheduling would become more costly and risky, increasing the attractiveness of flexible bidding. Whether those effects would incent a major increase in flexible bidding is unclear, but members of the MSC expect at least some change. The resulting price impacts are uncertain.

However, the ISO has decided to defer a decision to decrease the bid floor further to below -\$150/MWh. This is at least in part due to general concerns raised by stakeholders and the Department of Market Monitoring about the impact from the exercise of downward market power being increased by a lower bid floor. We raised related concerns in a previous MSC opinion,³ in which we pointed out the possible need for safeguards in cases where changes in transmission limits or modeling differences between the day-ahead and real-time markets bestow local market power upon a small set of generators who could be required to be dispatched below their day-ahead market schedule in real time to eliminate transmission overloads. Unfortunately, in the five years since that opinion, no analyses have been made public of the frequency or severity of such potential problems in the ISO market, so we are not in a position to assess whether the potential for the exercise of such downward market power is a significant risk nor able to assess the importance of developing changes to the mitigation design that would be needed to address these issues with either the current bid floor or a lower bid floor.

In general, members of the MSC believe that a lower bid floor may need to be instituted in the near future to incent downward flexibility. There will be a growing need for more incentives for flexibility from those who can provide it, even though some stakeholders commented that there are reasons that they will continue to self-schedule. Members of the MSC disagree with the argument that the present lack of bids between, say, -\$50/MWh and -\$150/MWh indicates that lowering the floor would not elicit any more decremental bids; in fact, the large amounts of self-scheduled imports and generation are *de facto* -\$150/MWh bids. Encouraging market participants who presently self-schedule to submit explicit offers would result in more rational curtailment of imports and generation than present ISO procedures for choosing among self-schedules to curtail, and could in the longer run encourage market participants to revise contracts that presently have provisions that discourage the submission of price-based offers.

² Market Surveillance Committee of the California ISO, *Opinion on Flexible Resource Adequacy and Must Offer Obligation*, March 11, 2014, p. 17, <https://www.caiso.com/Documents/FinalOpinion-FlexibleResourceAdequacyCriteriaMustOfferObligation.pdf>

³Market Surveillance Committee of the California ISO, *Opinion on Renewable Integration: Market and Product Review*, Dec. 8, 2011, www.caiso.com/Documents/MS_C_Final_Opinion_RenewableIntegrationMarket-ProductReviewPhase1.pdf

2. September 19, 2016 MSC general session Meeting

Three sets of issues were addressed in the meeting. Each was the subject of an ISO staff presentation and subsequent MSC and stakeholder discussion.

1. Transmission access charge options, with a focus on cost allocation for regional transmission projects.
2. Regional integration and attribution of carbon emissions for purposes of California greenhouse gas compliance
3. Update on measures to mitigate the Aliso Canyon gas storage facility outage

1. Transmission Access Charge Options. The first agenda item was introduced by Dr. Lorenzo Kristov, Principal, Market and Infrastructure Policy at the ISO. His presentation, along with the subsequent discussion by MSC members and attendees, addressed two issues associated with this initiative.

The first issue was the allocation of the cost of building new transmission in the situation in which there are economic benefits. Three situations were discussed: transmission additions having only economic benefits (justified by reduced generation fuel and capital costs); transmission additions motivated primarily by reliability benefits but which also have economic benefits; and transmission additions motivated primarily by policy goals. Dr. Kristov introduced possible principles for cost allocation in each case. MSC Chair Hobbs suggested a framework based on cooperative game theory in which cost allocations consider the next best alternative for each subregion, if it had to address its economic, reliability, and/or policy goals on its own. In theory, it is possible to identify these next best alternatives based on an integrated consideration of generation and transmission alternatives, but this would be the equivalent of an integrated resource planning study, which would be costly and whose assumptions would be subject to dispute. Nevertheless, such studies might have useful insight on the general magnitude of policy, reliability, and economic benefits, expressed in dollar terms. MSC member Dr. Scott Harvey pointed out that a check upon cost allocation methods will be to allow those who are allocated most of the costs to veto construction of a line.

Several stakeholders raise the issue of allocation of congestion revenue rights and how that would be affected by cost allocation. Another stakeholder expressed support for using the California ISO TEAM (Transmission Economic Assessment Methodology) approach, but that its method for calculating capacity benefits needs to be revised.

The second issue addressed was whether a single export access charge should be applied to all exports from any region within the ISO. Such a single charge will be necessary to prevent gaming when determining the source for exports. Two different ways for calculating the charge were illustrated by Dr. Kristov, and the relative advantages of each were discussed by the MSC members and attendees.

2. Greenhouse Gas Compliance. The second agenda item concerned the evolving policy of the California Air Resources Board concerning attribution of carbon dioxide emissions to imports of power to California from other regions in the energy imbalance market (EIM), and possible ways that the ISO could assign emissions to resources in the EIM or otherwise account for those emissions.

Don Tretheway, Senior Advisor for Market Design and Regulatory Policy at the ISO, began the discussion by making a presentation in which he outlined several alternative methods for accounting for carbon emissions associated with California EIM imports, and assigning responsibility for surrendering carbon allowances. MSC members stressed the importance of setting up a system that (1) can be readily adapted to expansion of the EIM footprint and promotes efficient operations, and (2) incentivizes efficient carbon reductions as the states adapt their policies in response to the Obama Administration Clean Power Plan. The options were discussed by MSC members and stakeholders.

Additional issues that were raised in the discussion by stakeholders included accounting for the new Washington State carbon policy, and possible inconsistencies between the day-ahead and real-time markets in treatment of import-associated carbon emissions,

3. Aliso Canyon. The third substantive item on the agenda concerned the ISO's phase 2 gas-electric coordination initiative. Cathleen Colbert, Senior Market Design and Policy Developer at the ISO, began the discussion with a presentation of the elements of the phase 2 initiative, including elements that would be carried over from phase 1 as well as new elements. After reviewing last summer's experience operating under the Aliso Canyon constraints, Ms. Colbert asked for MSC feedback on several issues, including:

- The technical issue of how daily gas burn deviation limits should be disaggregated to hourly limits. MSC members emphasized the importance of being able to adapt those disaggregations during the day based on whether more or less gas has been burned so far in the day compared to the day-ahead schedule.
- The ISO's statistical analysis of amounts of factors contributing to patterns of deviations between day-ahead gas burn schedules and real-time burn.
- Whether adjustments should be made to gas price indices used in the market power mitigation processes.
- After-the-fact gas cost recovery.

In addition, MSC members discussed the possible need for additional local market power mitigation measures, as recommended by the Department of Market Monitoring.