

Memorandum

To: ISO Board of Governors
From: Benjamin F. Hobbs, Chair, ISO Market Surveillance Committee
Date: December 11, 2019
Re: **Briefing on MSC activities from November 5, 2019 to December 6, 2019**

This memorandum does not require Board action.

During the period covered by this memorandum, the MSC held a general session meeting in Folsom on December 6, 2019.¹ The presentations and discussions are briefly summarized in the first section below.

In addition, the MSC also adopted an opinion on mitigation of system-wide market power, which was approved during the November 5, 2019 MSC general teleconference meeting. The recommendations made in that opinion were summarized in our November 6 activities memo to the Board.

General Session Meeting of December 6, 2019

The general session meeting had two major items: import bidding and the setting of market parameters under FERC Order 831; and resource adequacy enhancements.

FERC Order 831 – Import Bidding and Market Parameters Discussion

Brittany Dean, Market Design Policy Developer at the ISO began this session with a presentation on alternatives for the verification of supply costs associated with import bids that exceed \$1000/MWh, once the bid cap is raised to \$2000/MWh under the FERC order. After discussing the features of imports that make their costs more difficult to verify than costs associated with within-ISO supplies, Ms. Dean described a procedure that the ISO proposes to use to estimate a ceiling for import bids. This procedure would involve two steps: first, consideration of prices at electricity hubs outside the ISO for multi-hour blocks of power, and then definition of hourly prices within those hours by considering the ratio of hourly net load to the average load within a block. The procedure, whose details have not been finalized, could be designed to also account for opportunity costs of hydro storage reservoirs; greenhouse gas costs; transmission costs to the ISO; and a 10% adder to capture other costs.

Ms. Dean then described two alternatives for implementing the maximum import bid price. One would treat it as a hard cap, such that bids that exceed the higher of \$1000/MWh and

¹All presentations and recordings of the meeting can be found at <http://www.caiso.com/informed/Pages/BoardCommittees/MarketSurveillanceCommittee/Default.aspx>

the defined maximum would be rejected and not considered by the market software. The other alternative would not reject such bids. Instead, the bids would be adjusted downwards to the higher of \$1000/MWh and the defined maximum, and then the adjusted bids would be used in the market software. A bidder whose offer was adjusted could then file a justification of the higher costs with the ISO; then if the ISO verifies those costs, the bidder would be eligible for an after-the-fact uplift payment. Ms. Dean summarized the advantages and disadvantages of each proposal.

Active discussion among ISO staff, MSC members, and stakeholders occurred during and after the presentation about a number of issues. Among the issues discussed included the competitiveness of markets outside the ISO; the treatment of resource-specific import bids versus system resources by this procedure, and by the California resource adequacy rules; treatment of start-up costs, which can be significant for resources operating for short periods; and the desire of suppliers for a predictable “safe harbor” for bids. It was noted by a MSC member that the proposed hourly price adjustment system assumes a supply price elasticity of +1, and that actual price responses to load changes might be quite different; a stakeholder proposal to instead base the hourly price adjustments on analyses of market data was discussed. Another MSC member also pointed out that in the second proposal, there is a need for a tie-breaker among supply bids that are reset; one approach is to use the original bids for the scheduling run, and then the reset bids for the pricing run of the market software.

Danielle Tavel, Policy Development Data Analyst at the ISO, then made a presentation about alternatives for adjusting parameters that define constraint violation penalties in the market software, after the bid cap is raised under the FERC order. One alternative is to simply raise all penalties in proportion to FERC’s 100% increase in the bid cap (from \$1000/MWh to \$2000/MWh) or, in a variant of that alternative, raise all penalties by \$1000/MWh. Under this alternative, penalties would be increased irrespective of whether any eligible supply bids greater than \$1000/MWh have been submitted. The second alternative would raise those penalties only if eligible bids exceeding \$1000/MWh have been submitted. Two variants of the second alternative were described by Ms. Tavel; these variants differ in how they would calculate prices in the market pricing run if the power balance is violated in the scheduling run of the market software. One variant sets prices based on a \$2000/MWh power balance penalty price. The other instead relaxes the power balance such that the last accepted supply bid sets the energy price.

Stakeholders, MSC members, and ISO staff actively discussed the pros and cons of each of these alternatives. MSC members expressed concern that if there was actual scarcity, some of the proposed alternatives would result in prices below \$2000/MWh, even if there were declined demand bids at that level. On the other hand, it was also pointed out that scarcity might simply be triggered by the exercise of market power, and so allowing \$2000/MWh penalties when costs are well below that level might be unnecessarily costly to consumers. Other issues discussed included the treatment of virtual bids and demand-side bids of the various proposals.

Resource Adequacy Enhancements

Dr. Karl Meeusen, Senior Advisor Infrastructure & Regulatory Policy at the ISO, presented the principles and elements of the ISO’s draft proposal for a flexible resource adequacy

product, and its relationship to the proposed imbalance reserves in the day-ahead market enhancements initiative. The need for a flexible capacity product was extensively discussed by ISO staff, stakeholders, and MSC members. Some participants in the discussion believed that the need for this additional product has not yet been established, and that future experience with a revamped ramp product that addresses present operational problems with that product might prove informative. In response, ISO staff described potential issues confronting flexible capacity as a result of depressed energy prices in a renewables-dominated energy market, and the potential for some load-serving entities to avoid contracting with flexible capacity when making a resource adequacy showing, thereby “leaning” on other entities.

There was also discussion about what duration of ramps might provide the greatest challenges to the mix of supply available to the ISO in the future. Dr. Meeusen stated that the longest ramps (3 hours) are largely predictable and can be managed by the day-ahead energy market but deviations between the day-ahead forecast and actual net loads require a product with a faster ramp. MSC members expressed concern that an exclusive focus on 15 minute rampable capacity might bias resource procurement towards smaller, more flexible, but more expensive generators, not all of which would actually be needed to operate the system.

Chris Devon, Lead Infrastructure and Regulatory Policy Developer at the ISO, concluded the meeting with a presentation on potential modifications of rules governing resource adequacy imports. That proposal revises an earlier ISO proposal, and would now allow resource adequacy to be specified as non-resource specific, although the source balancing authority would need to be specified. However, some stakeholders expressed their preference for the earlier ISO proposal that imported resource adequacy should be associated with specific physical resources. Other issues were also discussed, such as the rights that the originating balancing authority would have to “recall” capacity committed as resource adequacy to the ISO.

The last portion of Mr. Devon’s presentation addressed the recent decision by the California Public Utilities Commission to require that all import resource adequacy self-schedule energy into the ISO market during the contract term hours. This led to vigorous discussion among ISO staff, stakeholders including a representative of the Commission staff, and MSC members about the purpose of the Commission decision and how restrictive it was likely to be in practice. Ms. Michele Kito of the Commission clarified that a goal of the decision was to encourage resource-specific imports of resource adequacy, in an effort to prevent non-specific imported resource adequacy from failing to back up their bids with physical capacity. This problem was an issue discussed extensively in an MSC opinion earlier this year.² One potential solution proposed by MSC members was to require import resource adequacy to bid no more than some reasonably high price value that is nevertheless well below the cap; this would encourage importers to back their resource adequacy commitments with physical capacity, at least during potential scarcity conditions.

² J. Bushnell, S.M. Harvey, and B.F. Hobbs, Opinion on Intertie Deviation Settlements, Market Surveillance Committee of the California ISO, Jan. 16, 2019, www.caiso.com/Documents/MSO-OpiniononIntertieDeviationSettlement-Jan18_2019.pdf