

Memorandum

To: ISO Board of Governors
From: Benjamin F. Hobbs, Chair, ISO Market Surveillance Committee
Date: August 18, 2011
Re: **Briefing on MSC Activities from June 24, 2011 to August 10, 2011**

This memorandum does not require Board action.

Over the period covered by this memorandum, the Market Surveillance Committee has had four areas of activity. First, it finalized its opinion on the two ISO proposals to change the local market power mitigation and competitive path assessment procedures.¹ This opinion was adopted by three of the MSC members on July 1, 2011, and presented to the Board at their July 13-14 meeting, when the Board approved the proposals. Second, members of the MSC have participated in discussions with staff and stakeholders on the renewable integration market & product review, phase 2 (“Renewable Integration Review”).² We will be working with staff to provide reviews of the market changes to be proposed under the review, and intend to issue an opinion on those proposed changes in November 2011. Third, we have written an opinion on the ISO’s proposal on “Convergence Bidding and the Imbalance Energy Offset”³ which was adopted during a public MSC call on August 16, 2011. Finally, we have also adopted an opinion on the ISO’s proposal on “Opportunity Cost of Flexible Ramping Constraint”,⁴ also on August 16.

1. Opinion on Local Market Power Mitigation and Competitive Path Assessment

The Federal Energy Regulatory Commission has mandated changes in the California ISO’s local market power mitigation procedures to accommodate demand bids. In response, two ISO proposals were developed for changing the market’s local market power mitigation and competitive path assessment procedures:

- (1) The local market power mitigation proposal. This will trigger energy bid mitigation decisions in the day-ahead, hour ahead, and real-time markets based upon the presence of a positive local market power component in local marginal prices attributable to non-competitive transmission constraints (or paths).

¹“Local Market Power Mitigation Enhancements, Draft Final Proposal,” California ISO, May 6, 2011, and “Draft Final Proposal – Dynamic Competitive Path Assessment,” California ISO, Department of Market Monitoring, May 23, 2011

²www.caiso.com/informed/Pages/StakeholderProcesses/RenewablesIntegrationMarketProductReviewPhase2.aspx

³www.caiso.com/Documents/DraftFinalProposal-Real-TimeImbalanceEnergyOffset.pdf, July 29, 2011

⁴Draft Final Proposal, July 20, 2011, foliweb7.caiso.com/2bc1/2bc1e2b53ba90.pdf

- (2) The competitive path assessment proposal. This proposal establishes a procedure that dynamically identifies non-competitive paths based on daily and hourly market conditions. This competitive path assessment proposal would replace the competitive path assessment approach of designating path competitiveness based on quarterly studies.

On July 1, 2011 a majority of the MSC adopted an opinion⁵ on these proposals that offered conclusions and recommendations concerning several issues. The primary conclusion was that the proposed changes to the local market power mitigation procedures are desirable for several reasons. Most importantly, in addition to complying with FERC orders, the changes will allow the local market power mitigation process to consider all demand and supply bid into the day-ahead market (including virtual demand and supply bids and offers), and make it possible to define competitive paths on a more real-time basis. The opinion concluded that the proposed changes will increase the accuracy of mitigation by targeting generators whose output will impact flows on transmission constraints that (1) are designated as non-competitive and (2) are actually binding.

The opinion also concluded that there are some elements of the proposed design and implementation whose performance should be subjected to further analysis prior to implementation, and then monitored by the ISO and the Department of Market Monitoring following implementation. One issue to be monitored arises from possible inconsistencies between conditions in the real-time predispach unit commitment (when noncompetitive paths are to be identified for the real-time market) and the subsequent real-time dispatch. The extent of inconsistencies should be monitored and, if appropriate, possible remedies should be considered. Another element was the choice of reference bus; it is important that exercise of local market power does not result in inflation of the price at that bus, since it is the basis of the competitive price to which any generator's noncompetitive offer would be mitigated (if higher than the generator's default energy bid). A third element was the treatment of ramp rates and forward schedules in determining the ability of generators to induce congestion on a path in order to raise prices.

We look forward to working with the ISO as the details of the implementation of the new procedures are developed and tested over the coming months.

⁵"Opinion on Local Market Power Mitigation and Dynamic Competitive Path Assessment", Adopted 3-0-1 (Bushnell, Harvey, Hobbs in favor, Stoft abstaining) July 1, 2011, http://www.caiso.com/Documents/110713Decision_LocalMarketPowerMitigationEnhancements-MS%20Opinion.pdf .

2. Renewable Integration Market & Product Review, Phase 2

This is a critical initiative by the ISO to ensure that the ISO market products and procedures are fit for purpose as the penetration of renewable resources increases towards the 2020 State of California target of 33%. The MSC has agreed to provide regular feedback on proposals as they are developed for the real-time and day-ahead markets. A lead MSC member has been designated to interact with ISO staff, and has participated in public calls. A MSC opinion will be developed for adoption in November, 2011 that will assess the proposals.

3. Convergence Bidding and the Imbalance Energy Offset

The ISO has proposed a response to the problems created by the interaction of convergence bidding and the persistent market design problems that have led to large levels of uplift payments through the real-time imbalance energy offset charge.⁶ At the center of that proposal is a move to suspend convergence bidding on interties until a more robust solution is found to the pricing problems experienced on the interties between the ISO and neighboring control areas.

A MSC opinion on the proposal was discussed with stakeholders and adopted at the August 16, 2011 public call of the MSC. In preparing this opinion, the MSC benefited from interaction with ISO staff and from the written comments made by stakeholders. Two members of the MSC participated in public calls on the proposal, and benefited from the questions and concerns raised in those calls.

The opinion expressed support for the ISO's proposal to eliminate virtual supply bids at interties. Although the MSC did not expect that the elimination of virtual supply bids at the interties would, by itself, reduce the level of these charges to an acceptable level, the opinion stated that there is a reasonable basis for expecting that this change will reduce those charges to some extent. The reason why the MSC did not expect that the charges would be reduced to acceptable levels is the fact that the ability to submit such bids is not the root cause of the high levels of real-time energy imbalance offset charges. The opinion states that whether the reduction in charges that will be small or substantial is not clear, but the direction will be unambiguously to reduce the charges.

The opinion summarizes what the MSC believes are to be the causes of the problem and then describes the ISO's proposal. Other possible measures that could be taken are also described that could be considered if the elimination of virtual supply bids at interties fails to substantially ameliorate the problem.

4. Opinion on Payment for Provision of Flexible Ramping

This opinion comments on the ISO's "Opportunity Cost of Flexible Ramping Constraint" proposal.⁷ This proposal would implement a new set of constraints in the real-time unit commitment and dispatch processes. The goal of these constraints is to reserve unloaded rampable capacity ("flexiramp") to meet ramping needs in the real-time market. The proposal would also provide for payments to reserved capacity based on calculated marginal opportunity costs from the real-time

⁶Footnote 3, op. cit.

⁷Footnote 4, op. cit.

predispatch market. The proposal is meant to be an interim measure, to be superseded by a ramp-related product to be defined as part of the ISO's Renewable Integration Review.

The opinion, adopted during the MSC's public call on August 16, 2011, was developed after participation in public calls, discussion during the MSC meeting of April 29, 2011, and interaction with ISO staff. The opinion supported the proposal as a strictly interim measure to ensure enough upward ramp in the real-time market, pending market reforms resulting from the renewable integration review that address the fundamental issues that lead to inadequate amounts of such ramp. The opinion concluded that the proposal would likely be effective in providing more upward ramp and would not tie the ISO's hands regarding the definition of a permanent solution to the ramp problem.

The opinion expressed some concern about the payment mechanism. Payment is proposed to be based upon the opportunity cost of scheduling capacity for flexiramp, in terms of the gross margin (price minus bid cost) of spinning reserve or energy that otherwise could have been provided by the capacity. This opportunity cost is calculated in the real-time predispatch process, when real-time unit commitment and spinning reserve schedules are determined, but energy is not yet scheduled. However, the actual opportunity cost to capacity scheduled for flexiramp will often be determined instead by the energy schedules determined during the subsequent real-time dispatch process, and is likely to be less than the payment calculated during the predispatch process. The opinion expresses concern that this inconsistency could lead to incentives to alter bidding behavior, in part because the absence of a flexiramp constraint in the day-ahead market could lead to systematically different returns for spinning reserve between day-ahead and real-time, or systematically different returns for flexiramp and spinning reserve. A recommendation is made in the opinion to monitor market outcomes after implementing the flexiramp constraint, and to make appropriate adjustments if needed.