

Memorandum

To: ISO Board of Governors

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

Date: March 8, 2017

Re: Briefing on MSC activities from Feb. 4, 2017 to March 3, 2017

This memorandum does not require Board action.

During the period covered by this memorandum, the Market Surveillance Committee held a general session teleconference meeting on March 3, 2017.¹ The substantive agenda item was the ISO's stepped constraints parameters initiative, for which a straw proposal was posted on February 28, 2017.²

The meeting began with a presentation by Don Tretheway, Senior Advisor for Market Design and Regulatory Policy at the ISO, of the elements of the straw proposal. Mr. Tretheway described how the present proposal differs from the original issue paper in several important respects. In particular, the following issues are no longer part of the initiative: thresholds for shift factor effectiveness, evaluation of resource sufficiency in the energy imbalance market, and lowering the floor for energy bids. The remaining issues are parameters for violation of transmission capacity constraints and power balance constraints, and a new issue, which is the updating of constraint parameters to reflect the raising of the bid cap by the Federal Energy Regulatory Commission to \$2000/MWh.

Most of the presentation and subsequent discussion was about the proposal to allow small violations of power balance parameters at a penalty of \$155/MWh in the real-time (5 minute) dispatch market. This is lower than the present penalty, and would prevent minor violations from causing very high energy prices when in fact the system can easily compensate for very small supply-demand imbalances. This proposed penalty is justified by the ISO based on the low frequency of real-time energy prices in excess of that level. The amount of violation that is proposed to be allowed under this penalty is based upon an analysis of the distribution of the amount of frequency regulation (in particular, "up-regulation") resources that are actually called upon, since a power balance violation in which load exceeds supply would likely be made up by such resources.

Any changes recommended by the stepped constraints parameters initiative for the power balance constraint would likely be proposed as an interim measure until changes in the

¹<http://www.caiso.com/informed/Pages/BoardCommittees/MarketSurveillanceCommittee/Default.aspx>

²<http://www.caiso.com/informed/Pages/StakeholderProcesses/SteppedConstraintParameters.aspx>

5 minute real-time dispatch market are made to co-optimize acquisition of operating reserves and energy. There was significant discussion during the meeting by MSC members and participating stakeholders about the advantages of similar co-optimization systems now in place in the New York and Mid-Continent ISO markets, in which a potential power balance violation could be avoided by dispatching resources for energy that would otherwise be providing regulation or spinning reserves.

There was extensive discussion as to whether the ISO's proposed penalty approach would result in lower energy prices than would arise from a co-optimized approach similar to those used in other ISOs, and whether such prices are consistent with scarcity pricing principles. Other issues concerning the power balance parameter that were discussed included: interactions with available balancing capacity in non-CAISO balancing areas in the energy imbalance market; interactions with the load conformance limiter; whether the parameter would be too low on days with very high gas prices; and interactions of the power balance penalty with transmission penalty parameters, in terms of which constraints the market software will choose to violate.

There was also discussion of the implications of the new offer cap, in which offers over \$1000/MWh would have to be cost-justified. In particular, a question was raised about whether the adjustment in constraint parameters in the market software should consider that feature of the new offer cap.

The Market Surveillance Committee intends to provide a formal opinion to the ISO Board of Governors when this initiative's proposal is submitted for consideration by the Board.