

Memorandum

To: ISO Board of Governors

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

Date: January 31, 2013

Re: **Briefing on MSC Activities from Dec. 7, 2012-Jan. 24, 2013**

This memorandum does not require Board action.

Summary

Over the period covered by this memorandum, the Market Surveillance Committee held a noticed meeting on January 17, 2013 in Folsom, CA on topics including flexible resource adequacy criteria & must offer obligations; post-contingency compliance with systems operating limits; and FERC Order No. 764. Individual members of the MSC also participated in calls with ISO staff concerning various ISO initiatives.

In this memo is a brief summary of several of the issues discussed during the January 17 public meeting. A complete summary will be available in the meeting minutes.

Flexible Resource Adequacy Criteria and Must-Offer Obligations

After a presentation by ISO staff member Dr. Karl Meeusen, MSC members and stakeholders discussed several issues. One was the definition of the need for flexible capacity and the rationale for that definition. There are several different types of flexibility that are needed by the ISO system (distinguished by the time period over which a ramp needs to be sustained). There was discussion of the importance of each need, the extent to which the same or different types of capacity are required to meet each need, and which needs might not be met due to possible inadequacies in the day-ahead and real-time markets operated by the ISO.

Another issue examined was the definition of capacity that would qualify as designation of flexible capacity. That discussion focused on the differences between the Joint Parties proposal, which was submitted for CPUC consideration in the ongoing 2014 resource adequacy proceeding, and a proposal by PG&E regarding whether hydropower whose output was limited to fewer than 17 hours per day should be allowed

to be designated as a flexible resource. This led to a discussion of the role of hydropower in providing flexibility in a system with a mix of resources, and the pros and cons of differentiating capacity types in a resource adequacy system.

The MSC plans to issue an opinion on flexible capacity need definition and counting rules later this year.

Post-Contingency Compliance with Systems Operating Limit

Dr. Lin Xu of the ISO staff made a presentation on the reasons for a possible new constraint in the ISO market models. The purpose of this constraint would be to ensure that resources were positioned in the system dispatch so that if a contingency occurs, then the resources could move within 30 minutes to positions that would result in compliance with certain system operating limits. The MSC members and participating stakeholders discussed the effect of such constraints on pricing, and how resources that could move to meet the post-contingency constraints would be paid.

As explained by MSC member Ben Hobbs, the basic economic principle is that if a resource's schedule would be adjusted because of the constraint, then the energy, ancillary service, and contingency constraint payments should be such that the adjusted schedule yields the highest possible net return among alternative possible schedules for the resource under those prices. (The contingency constraint payment would be the amount of MW contributed by the resource to that constraint, times the constraint's shadow price.) This is the idea of "supporting prices", whose purpose is to incent resources to follow operator instructions. It is possible to calculate such supporting prices from the shadow prices of the constraints.

This method of representing these constraints in the ISO market models appears likely to help lessen the need for the ad hoc enforcement of these requirements through minimum on-line commitment constraints that some stakeholders believe presently may not minimize the cost of meeting load and may have an inappropriate effect on market prices.

One idea discussed by MSC member Shmuel Oren was that use of advanced stochastic or robust dispatch and unit commitment methods in the market software could limit the need for new operating reserve products and constraints. Use of such methods is under consideration by the eastern ISOs.

FERC Order No. 764

Mr. Don Tretheway of the ISO staff made a presentation summarizing four salient issues involving compliance with this order, which addresses implementation of 15 minute scheduling and settlement. These included:

- (1) transmission reservations hour ahead, which under the latest version of the ISO's proposal would result in reservation of import capacity but no settlements based on hour-ahead prices;
- (2) settlement of load in the proposed 15- and 5-minute markets,
- (3) settlement rules or penalties to incent resources to follow dispatch orders in the real-time market, and
- (4) the definition and settlement of the dual import constraints, in which there is one constraint on net physical plus virtual imports, and a second constraint on just physical net imports.

Each issue was addressed in comments by the MSC membership and attending stakeholders.

There was significant discussion by MSC members of the need for and possible definition of penalties for deviation from dispatch orders. MSC member discussion also focused on whether and how a combined integrated forward market (IFM) and residual unit commitment (RUC) process would adjust physical import or export schedules so that the physical net import constraint would be met in the combined market if there were virtual exports.

The MSC anticipates preparing a written opinion for submission to the Board later this year on the issues involved in compliance with FERC Order No. 764.