Memorandum

To: ISO Board of Governors

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

Date: November 1, 2013

Re: **Briefing on MSC Activities from Sept. 1-October 31, 2013**

This memorandum does not require Board action.

Over the two months covered by this memorandum, the Market Surveillance Committee has held a public session meeting in Folsom on September 6, 2013; MSC members have interacted with staff and stakeholders on several ISO initiatives; and a draft opinion on the energy imbalance market was written, with the final version adopted by the MSC on October 30, 2013, on a public session teleconference meeting.

The next meeting of the MSC will be in Folsom on November 15, 2013.

September 6, 2013 MSC meeting

During the September 6 MSC meeting, three ISO initiatives were discussed with stakeholders and staff, including:

- the proposed energy imbalance market between the ISO and PacifiCorp;
- development of the full network model; and
- definition of must-offer requirements for resources under the flexible resource adequacy requirements that the California Public Utilities Commission is developing in consultation with the ISO.

Presentations were made by MSC members at the meeting, including presentations on rationales for resource adequacy markets (Ben Hobbs); a proposed procedure for estimating opportunity costs of start-ups and other limitations for use in bidding under the flexible resource must-offer requirements (Ben Hobbs); and pricing of interchanges between the ISO and other systems in a full-network model, as opposed to the present radial network representation of interconnections (Scott Harvey). These presentations, as well as presentations by ISO staff and stakeholders, are available on the California ISO's website at: http://www.caiso.com/informed/Pages/BoardCommittees/MarketSurveillanceCommittee/Default.aspx

MSC Opinion on the energy imbalance market

On October 30, 2013, the MSC voted to adopt an opinion on the energy imbalance market. In this opinion, the MSC strongly supported the goals of the proposal, arguing that increasing the efficiency of power interchange across the West is crucial for reducing consumer costs and achieving the economic and environmental goals of renewable energy development. The MSC recommended that the Board of Governors approve the proposed EIM design.

Although the opinion provided extensive discussion of *potential* problems that could arise, the MSC also emphasized that the ISO has taken important steps to prepare the system to deal with these problems if they occur, and that there will be important benefits from successful implementation of the energy imbalance market.

The opinion stated that it is important to remember that this market design is not being drawn upon a blank slate. The establishment of a geographically expanded balancing market involves many steps, and is made more complicated by the need to accommodate and respect existing rights and practices on the western grid. It will not immediately resolve all of the integration problems and pricing inconsistencies created at the "seams" between market regions. Further, there are some risks associated with the implementation of the imbalance market changes that will need to be carefully monitored and analyzed by the ISO as this design moves toward implementation, and addressed as necessary.

The opinion discussed four aspects of the proposal:

1. **Schedule management rules.** First, if there are significant congestion interactions between the California ISO and PacifiCorp transmission systems, then there is potential for significant shortfalls in real-time congestion rents arising from the independent determination of market-based day-ahead schedules on the California ISO transmission grid and the base schedules on the EIM BAA grids. This can occur if market participants are able to structure day-ahead schedules (either physical or virtual market-based on the ISO side, or base schedules on the PacifiCorp side) that exceed the actual historical use of the transmission system in the neighboring BAAs. There is also a related potential for a shift of costs and benefits between the transmission customers that pay the embedded costs of the grid and other market participants that is not associated with congestion rent shortfalls (i.e., there can be cost shifts even if there are no congestion rent shortfalls). The ISO proposes to address these possible impacts in part by allocating specific congestion rent shortfalls to virtual transactions that contribute to them. In addition, the ISO proposes to have the ability in its day-ahead market to impose flow limits on specific transmission constraints on the PacifiCorp transmission system. The ISO will be able to take measures to activate this functionality, if it identifies constraints that could be impacted by inflated schedules in the California ISO day-ahead market.

   The MSC expressed its support for the steps that the ISO is taking to prepare for possible issues arising from interactions of ISO forward schedules, PacifiCorp base schedules, and the imbalance market. The MSC also stated that if the EIM expands, the California ISO will eventually need to develop a workable general framework that will account for these interactions in establishing forward schedules.

2. **Greenhouse gas emissions accounting rules.** Second, the MSC stated its belief that the system that the ISO proposes for accounting for greenhouse gas emissions is appropriate and consistent with the spirit of the rules adopted by the California Air

Resources Board. Some stakeholders have expressed concern that the new rules would enable EIM participants to specify a separate GHG cost component without bounds. However, the MSC concluded that, in effect, this capability already exists under the present market rules in which the offer price of imports to ISO can reflect whatever emission cost the out-of-state supplier chooses to include.

3. **Phase-in options.** Third, the MSC noted that the ability to limit the capacity of intertie transactions can be a potentially useful tool for diagnosing the source of any pricing or uplift issues that may arise. The MSC, therefore, supported having such a functionality in the California ISO system. The MSC stated its belief that testing will reveal much about the potential for uplifts or software issues and enable the ISO to assess whether limiting the EIM transfer capability to a low value (such as zero) for an initial period would be potentially helpful in verifying that the real-time dispatch is operating as intended. The expectation is that if such a step were taken, the limitation would be imposed for no more than a period of days, not months or longer.

4. **Market power mitigation.** Last, the MSC noted that taken by itself, expansion of the EIM would very likely enhance competition by expanding the contestability of regional markets. However, some questions remain about the implementation of balancing and transmission pricing within the non-CAISO EIM BAAs. In the opinion, the MSC described some conditions in which local market power could be an issue in these regions. The MSC expressed its support of the ISO's plans to include the market system functionality that will allow for mitigation to be potentially triggered by congestion on interties between EIM areas, as well as on internal constraints.

In summary, the MSC concluded that implementation of the EIM between the California ISO and PacifiCorp will yield large cost savings, while facilitating the integration of renewable power sources. The MSC anticipates that realization of these benefits would motivate other control areas to join the EIM, and furthermore encourage consideration of expansion and integration of day ahead as well as imbalance markets.