April 17, 2015

The Market Surveillance Committee (MSC), an advisory committee to the ISO Board of Governors, convened the general session at approximately 10:10 a.m. and the presence of a quorum was established.

ATTENDANCE

The following members of the Market Surveillance Committee were in attendance:

James Bushnell
Scott Harvey
Benjamin Hobbs, Chair

GENERAL SESSION

The following items were discussed in general session.

PUBLIC COMMENT

No public comment was offered at this time.

DECISION ON THE MINUTES

Motion

Committee member Bushnell

Moved, that the Market Surveillance Committee, Advisory Committee to the ISO Board of Governors, approve the general session minutes from the February 19 and March 23, 2015 meetings.
The motion was seconded by Committee member Harvey and approved 3-0-0.

BID COST RECOVERY AND VARIABLE ENERGY RESOURCE SETTLEMENT MODIFICATIONS

Delphine Hou, Lead Market Design and Regulatory Policy Developer, briefed the MSC and stakeholders on issues of the bid cost recovery and variable energy resource settlements initiative which included: use of the persistent deviation metric - and within that - the use of the default energy bid.

Ms. Hou clarified the existing policy and noted that all resources/generators should have a default energy bid. Ms. Hou stated the default option is a variable cost option, which would for variable energy resources would be close to or equal to zero, and could include GMC or variable O&M adder.

Next, Ms. Hou provided a list of questions for the MSC to consider: Should the default energy bid for resources receiving energy compensation outside of the ISO market be negative? If so, how should the ISO calculate the costs? What are the best practices in the other ISOs? Would this approach conflict with the LMP-based cost option?

Discussion ensued between Ms. Hou and the MSC.

To conclude, Ms. Hou noted that the bid cost recovery and variable energy resource settlement initiative would be going to the Board in July.

Public Comment

Dean Burke, on behalf of California Department of Water Resources, asked a clarifying question regarding whether any member of the MSC participated on the recent bid cost recovery and variable energy resource stakeholder call. Ms. Hou confirmed that Dr. Hobbs participated in a portion of the call and that they would be debriefed on the discussion from that call.

Following Ms. Hou, Dr. Hobbs briefed stakeholders and other members of the MSC on philosophies and consequences in setting default energy bids for variable energy resources. Dr. Hobbs discussed what could happen when default energy bids for variable energy resources are set to incorrect values. He described how default energy bids for variable energy resources in theory are used for local market power mitigation. Dr. Hobbs indicated that in theory, if one were to get the default energy bid wrong, there is a possibility of exercising market power. Dr. Hobbs stated that the important use is for residual imbalance energy and the persistent deviation metric.
To conclude, Dr. Hobbs touched on the variable energy owner’s marginal costs and provided some examples.

**ENERGY IMBALANCE MARKET PRICING**

Guillermo Bautista-Alderete, from Market Quality and Renewable Integration, gave a brief update on the performance of the energy imbalance market and enhancements made to the energy imbalance market. Dr. Bautista-Alderete briefly mentioned there has been a lot of discussion with participants and FERC, as well as a lot of activity regarding the performance of the EIM market. Dr. Bautista-Alderete reminded stakeholders that there is a FERC-approved waiver in place allowing the EIM to set prices at the last bid accepted in the case of market infeasibilities, as well as requirements to provide a regular report to FERC.

Dr. Bautista-Alderete discussed the 5-minute transfers capabilities to and from PacifiCorp for the period between November 1 and March 31 and noted that meaningful transfers took place between PAC East and PAC West. Dr. Harvey noted that the transfers in February dropped between PAC East and West. Dr. Bautista-Alderete also discussed the frequency and causes of under-generation EIM outcomes since November 2014, with a focus on March 2015.

**Public Comment**

Mark Smith, on behalf of Calpine, had a clarifying question regarding how the ISO characterizes the causes of infeasibility and whether the ISO is characterizing the infeasibility as a renewable deviation, which resulted in a manual dispatch, or manual dispatch which occurred because of a renewable deviation.

Also seeking clarification, Ellen Wolfe, on behalf of Western Power Trading Forum, asked whether there is an implication that if PacifiCorp were to take manual actions outside of EIM, then EIM prices should not reflect shortages might ensue.

Dr. Harvey, on behalf of the MSC, provided further clarification by stating that the market does not see the output or action taken by a manual dispatch to increase output.

Discussion ensued between Dr. Bautista-Alderete, stakeholders and the MSC.
RECESSED

There being additional general session matters to discuss, the meeting was recessed at approximately 12:00 p.m. Chairman Hobbs stated the meeting would reconvene at approximately 1:00 p.m.

RECONVENED

The Market Surveillance Committee (MSC), an advisory committee to the ISO Board of Governors, reconvened the general session at approximately 1:10 p.m. and the presence of a quorum was established.

ATTENDANCE

The following members of the Market Surveillance Committee were in attendance:

James Bushnell
Scott Harvey
Benjamin Hobbs, Chair

GENERAL SESSION

The following items were discussed in general session.

ENERGY IMBALANCE MARKET POTENTIAL PRICING MODIFICATIONS

Dr. Scott Harvey, Committee member of the Market Surveillance Committee briefed the MSC and stakeholders on ramp constraints and load balance penalties in electricity markets. Dr. Harvey provided some background statistics regarding power balance violations since November in the EIM five minute dispatch for the PacifiCorp east and west balancing regions. Dr. Harvey noted that power balance violations will exist, and indeed have and continue occur in the CAISO footprint, and that it would be unrealistic to expect them to go to zero. However the frequency of violations should decrease with ongoing training, and refinements to operating policies.

Next, Dr. Harvey provided data on New York ISO and MISO and referenced ramp constraints in the real-time dispatch. Dr. Harvey briefly spoke about some of the challenges MISO faced prior to 2009. Next, Dr. Harvey noted that the ISO likely faces bigger challenges than MISO in balancing load and generation within the EIM because of limited transfer capability between the EIM regions that are available in a five minute time frame. Dr. Harvey concluded his presentation by restating there is nothing distinctive about power balance violations in the time
frame of the real-time 5 minute dispatch. Dr. Harvey went on to say that notional power balance violations occur routinely, and that other ISOs as well as operators of non-ISO systems do not even enforce the power balance constraint in the dispatch on a five minute basis. Finally, he stated that if energy and ancillary service prices are used to incent market efficiency and support reliability, then shortage pricing needs to be rationally related to the degree of shortage.

Don Tretheway, Lead Market Design and Regulatory Policy Developer, then briefed the MSC and stakeholders on EIM potential pricing modifications. Mr. Tretheway noted the presentation was a follow-up to the FERC Technical Conference that was held the week prior to the MSC meeting. He noted that the presentation served to provide additional details on what the ISO will be proposing. Mr. Tretheway reviewed the main objectives to the proposed design change:

- To recognize available capacity when there is a market infeasibility in an EIM Balancing Authority Area (BAA),
- To ensure that available capacity is not used to support EIM transfers to other BAAs in the EIM,
- To ensure that available capacity is released to ensure that congestion is resolved.

Next, Mr. Tretheway, walked through some examples of how the design prices power balance infeasibilities, and the effect of the power balance relaxation parameter. Mr. Tretheway reviewed the elements being discussed of a proposal to respond to FERC’s requirement that the ISO take actions to improve the performance of the EIM.

Discussion ensued between Mr. Tretheway, the MSC and stakeholders.

FUTURE AGENDA ITEMS

Mr. Hobbs announced that the next in person meeting would be held tentatively in June.

ADJOURNED

There being no additional general session matters to discuss, the general session meeting was adjourned at approximately 3:00 p.m.
The MSC has approved these Minutes of the April 17, 2015 MSC Meeting at the following MSC Meeting:

Date of approval:        July 15, 2015