

Market Update Call Meeting Minutes August 03, 2017¹

Agenda

- 1) Meeting Minutes Review Rahul Kalaskar
- 2) Weekly Performance Report Rahul Kalaskar
- 3) Price Correction Reports Rahul Kalaskar
- 4) Actions Items from the previous week Rahul Kalaskar
- 5) General Questions/ Comments

Updates and Meeting Minutes Review

On July 18, 2017, the ISO held the market planning and performance forum meeting. During the morning session, there were several follow-up questions regarding the IFM market results for June 21, 2017. Furthermore in recent days, on August 1 and August 2 IFM also saw some high prices. So, the ISO would like to respond to those questions and provide some insights about the August 1 and August 2 market results.

Q. For June 21, 2017, did market have ancillary service scarcity pricing event?

A. On June 21, 2017, there was no ancillary service scarcity in the day-ahead market when high prices were observed. The scarcity of ancillary services is triggered when the ancillary service constraints are relaxed in the scheduling run. The penalty price to relax the ancillary service constraint is provided in section 6.6.5 of the market operations BPM. The table: Integrated Forward Market (IFM) parameter values, provide scheduling run values for the relaxation parameters. Once the ancillary service constraint is relaxed in the scheduling run, the prices are set by the demand curve in the pricing run. The details of the demand curves are provided in section 4.4.1: Ancillary Service pricing in event of supply insufficiency. On June 21, energy and ancillary service prices were high in the range of \$500-\$600, and these level of prices are still below the value of the penalty prices that triggers scarcity.

Q. What were the primary drivers for the high price in IFM for June 21, 2017? Similarly what were the primary drivers for high IFM prices on August 1 and August 2?

A. The ISO provided the main drivers for high prices for June 21, 2017, during the July 18, MPPF meeting. They were: high demand driven by higher temperatures and thinner supply bid stack. The marginal bid for June 21 high price was a virtual bid. The marginal bids for August 1 and August 2 were a combination of virtual bids and import bids. Also for these days, there was a reduction in import bids and increase in export bids compared to other days.

Q. What were the level of generation outages for these days?
A. The ISO posts generation outages on its website and is publicly available at http://www.caiso.com/market/Pages/OutageManagement/UnitStatus.aspx

California ISO/MVQA 8/16/2017

¹ The California ISO (CAISO) hosts this bi-weekly market update conference call, generally at 10:15AM PST bi-monthly on Thursdays. This call is an opportunity for market participants to ask general questions regarding the market. Please send any questions to CIDI system, which includes questions that have proprietary information and that might be commercially sensitive. Only general market-related questions which are neither proprietary, nor non time-sensitive should be sent to market_issues@caiso.com.



Q. Does the chart of bid stack discussed during the MPPF contain all online and offline resources? **A.** The bid stack discussed during the MPPF depicts only variable component of the three part bids. It does not include the Pmin of the resources. In future, ISO can also provide a stack of the Pmin.

Q. Why is the price above \$600 in the Integrated Forward market? Such high prices were not observed since the implementation of MRTU.

A. In the integrated forward market prices are set by bids, either physical or virtual. The marginal price for an hour is dependent on both the supply and demand bid stacks which are a function of outages and bid submission. On June 21, 2017, and August 1, and August 2, the supply bid stacks were reduced due to bid submission and the demand bid stack was clearing much higher due to higher demand motivated by higher temperatures.

Q. Why were high prices not observed in real-time?

A. Real-time market did not observe similar level of high prices compared to day-ahead market due to change in system conditions and availability of resources.

Q. On June 21, 2017, why is Market Power Mitigation (MPM) price lower than IFM prices? **A.** MPM and IFM runs are two different market runs and they produce two completely different solutions which are independent of each other. The bid sets for IFM can be different than that of MPM run due to mitigation leading to mitigated bids. Having a different set of input bids may lead to a slightly different solutions. In the day-ahead market, another complexity is that the market is also solving a unit commitment problem, so when bids are changed in some hours it may actually lead to a different commitment profile which may result in different pricing outcome.

Weekly Market Performance Report

The ISO posted the market performance reports for July 12, 2017, through July 25, 2017. For this timeframe both the day-ahead and real-time markets were generally quiet with the usual pattern of congestion observed in the most recent days. The congestion was driven by outages and load pattern observed in these days.

Questions on the Weekly Market Performance Report

None

Price Correction Reports

The ISO published two price correction reports in past two weeks. The first report was for July 10 through 14. There were 3542 intervals corrected for this period, all of the corrections were done by selective re-calculations. The price corrections were performed due to a software defect and data input error. The software defect was related to incorrect dispatch of a resource and due to incorrect pricing from a RTCD run. The second report was for July 17 through July 21. For this timeframe the ISO corrected prices for 2599 intervals by selective re-calculations and 8 intervals by interval replacement. The price corrections were due to software defect and data input error. The correction of data input error was related to incorrect limit on the transmission constraints. The software defect was related to incorrect pricing on selective Pnodes and incorrect pricing from RTCD run.

Questions on Price Correction Report

None



General Questions

None

General Reminders

- NOTE: The current best practice, and preferred method, of asking questions is to route through the Customer Inquiry, Dispute and Information system, "CIDI".
- Please submit your questions ahead of the call; there are occasions when we have to gather information: submission ahead of time allows us more preparation time to reply.
- To add general comments/questions/requests to the action item list or meeting agenda, market participants should also open corresponding CIDI tickets with both the Functional Environment as "Market Performance" and SCID as "XPUB" by close of business (COB) on Mondays.