

Market Update Call Meeting Minutes September 14, 2017¹

Agenda

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

Meeting Minutes Review

The August 31st meeting minutes have been posted. ISO provided a response to the questions from that call. This question and ISO's response is captured below with an additional clarification.

Q: Why are there negative prices for the internal CAISO region for the real-time regulation down scarcity event on August 21, 2017?

A: The negative \$700 Regulation down price was observed for the AS_CAISO region, and at the same time, the CAISO expanded (AS_CAISO_EXP) region had the \$700 price (scarcity price). The negative price was driven by an erroneous limit on the maximum requirement for the AS_CAISO region. The maximum requirement in the real-time market was below the regulation down procurement from the day-ahead market for the AS_CAISO region, such that award from the sub region could not contribute to the system wide requirement hence there was a scarcity for the system wide area. The same reason results in a negative regulation down shadow price for the AS_CAISO region because the optimization engine was binding for the maximum constraint (maximum requirement constraint was relaxed). This error was discovered after the five business day deadline for price corrections so these prices will not be corrected. The incorrect regulation down requirement was a result of a manual error, so to avoid such mistakes in future, the ISO is working on a process to automatically align the regulation down requirement.

Weekly Market Performance Report

The ISO posted the bi-weekly price correction report for August 23 through September 5. During this time, between August 28, and September 3, the day-ahead market saw high prices above \$100/MWh for several hours primarily for both the peak load and the net peak load hours. Here net peak load refers to load minus output from variable energy resources. These high prices were driven by high temperatures in California and rest of the west. The maximum LMP for this timeframe occurred on September 1, 2017 for hour ending 19 at \$771/MWh. For this day the real-time peak was above 50,000 MW which was very close to ISO's all-time peak load. For the same days, in several hours for the both FMM and five minute market prices were set to \$1000 mainly driven by energy requirement and local area congestion.

Questions on the Weekly Market Performance Report

Q: Is there something fundamentally different with the market now because we have observed the similar level of loads in the past but the prices have not been as high as they are recently? Is the market procuring

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.



other types of services like regulation and ancillary services or are there less imports that are driving the prices up?

A: There are several factors that contributed to high prices in the day-ahead market. First, the load levels for recent months are much higher compared to the prior years. For instance, on September 1, California was close to breaking the record peak set back in 2006. The load levels observed during past few weeks are the highest we have seen in the past 10 years. Second, the bid stack has changed compared to prior years. This was discussed in the July 18 MPFF. The generation landscape has changed significantly with reduction in nuclear power in California and a large increase in renewable generation has created a completely different dynamic. Furthermore, during some of these days, there was a reduction in net import bids in the market.

Price Correction Reports

During the week of August 21-25, 2017, the ISO processed 2246 price corrections due to software defects and data input errors. During the week of August 28-September 1, 2017, the ISO processed 2684 price corrections due to software defects and data input errors.

The ISO would like to modify the existing price correction reports such that if there are correction for every interval to only few locations, this information will be presented in a summary rather than captured in a table depicting every single interval. An example of this change has been posted for the week of September 5-8 at: http://www.caiso.com/Documents/WeeklyPriceCorrectionReportSep5-8 2017 NewFormat.pdf

To compare the original version is located at: http://www.caiso.com/Documents/WeeklyPriceCorrectionReportSep5-8 2017.pdf

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 **C**ustomer Inquiry, **D**ispute 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.