

# Price Correction Report

## Week of July 6 – 10, 2020

### Overview

This document is intended to meet the requirements of ISO Tariff section 35.6, and provides the Market Participants with a summary of all price corrections that occurred during the week. For example, report titled with May 5-9, 2014 will cover all corrections made during the week of May 5-9. In a normal situation, it will include trade dates that have price corrections which are due between May 5-9, 2014 based on the five business day for Real-Time market and three business day for Day-Ahead market.

The structure of the report is as follows:

- Price correction listing – this section includes a listing of all the corrections, including market intervals affected, locations, reason (which would tie back to the description of issues section), and method of price correction.
- Description of Issues – this section describes each issue which resulted in a correction in more detail.
- Price-fill report – metrics on the number of empty price intervals that were filled by adjacent interval prices, usually due to failed runs.

For the week covered by this report, **1169** intervals were corrected.

The trade dates covered by this report are:

DAM: 6/30/2020 – 7/7/2020

RTM: 6/26/2020 – 7/5/2020

### ***Correction methodologies***

The following are the definitions of the correction methodologies used:

**Selective recalculation:** The CAISO will selectively recalculate incorrect financially binding prices when the invalid prices are isolated and can be corrected such that no other financially binding prices are affected by the correction.

**System recalculation:** The CAISO will recalculate all prices for the invalidated market interval using corrected or recreated input data, or repaired software as applicable.

**Replacement:** If the above correction methods are not applicable and practicable, the CAISO shall use, in place of prices for the binding interval of an invalidated market solution, replicated prices from binding or advisory intervals from the validated market solution in which the market conditions were most similar to the market conditions in the invalidated market solution for the affected interval.

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### Price Correction Listing

The following is a list of the corrections made during the week, sorted by date and time. The number to the left of the reason field corresponds to the issue number in the Description of Issues section. The count of corrected Pnode/Apnode for each corrected interval is listed left to the Affected Location field. In case of many intervals with the same correction reason, instead of providing the exact count of corrected Pnode/Apnode, the range of Pnode/Apnode affected is provided and listed in another table. Please note that there are only flex ramp prices corrections or AS price corrections for those intervals that have the Count of Corrected Pnode/Apnode column missing.

#### Corrections made through selective recalculation: 1164

Date	HE	Intervals	Market	#	Reason	Number of corrected Pnodes/Apnodes	Affected Area
06/26/2020	1,9-14,16,21-22,24	1-12	RTD	1	Software Defect	5	Local
06/26/2020	15	1-10,12	RTD	1	Software Defect	5	Local
06/26/2020	15	11	RTD	1, 4	Software Defect, Data Input Error	50	Local
06/26/2020	17	1-9	RTD	1	Software Defect	5	Local
06/26/2020	19-20	7-12	RTD	1	Software Defect	5	Local
06/26/2020	2	1-8	RTD	1	Software Defect	5	Local
06/26/2020	23	1-9,12	RTD	1	Software Defect	5	Local
06/26/2020	3	2-3,10-11	RTD	1	Software Defect	5	Local
06/26/2020	5	3-9	RTD	1	Software Defect	5	Local
06/26/2020	6	1-8,11-12	RTD	1	Software Defect	5	Local
06/26/2020	7	1-5,10-12	RTD	1	Software Defect	5	Local
06/26/2020	8	2-12	RTD	1	Software Defect	5	Local
06/26/2020	1-2,8-13,16-17,21-24	1-4	RTPD	1	Software Defect	5	Local
06/26/2020	14	3	RTPD	1, 4	Software Defect, Data Input Error	17	Local
06/26/2020	15	1,3-4	RTPD	1	Software Defect	5	Local
06/26/2020	15	2	RTPD	1, 3, 4	Software Defect, Data Input Error	110	Local
06/26/2020	19	4	RTPD	1	Software Defect	5	Local
06/26/2020	20	1,4	RTPD	1	Software Defect	5	Local
06/26/2020	3	1-2	RTPD	1	Software Defect	5	Local
06/26/2020	5	2	RTPD	1	Software Defect	5	Local
06/26/2020	6	1	RTPD	1	Software Defect	5	Local
06/26/2020	7,14	1-2,4	RTPD	1	Software Defect	5	Local
06/27/2020	1-3,6-8,13,21-23	1-12	RTD	1	Software Defect	5	Local
06/27/2020	10	1-4,9-10,12	RTD	1	Software Defect	5	Local
06/27/2020	11	1-4,10	RTD	1	Software Defect	5	Local
06/27/2020	14	5-12	RTD	1	Software Defect	5	Local
06/27/2020	15	1-4,6-11	RTD	1	Software Defect	5	Local
06/27/2020	16	10	RTD	1, 2	Software Defect, Data Input Error	1409	Local
06/27/2020	16	11	RTD	1, 2	Software Defect, Data Input Error	1414	Local
06/27/2020	16	12	RTD	1, 2	Software Defect, Data Input Error	1413	Local
06/27/2020	17	1	RTD	1, 2	Software Defect, Data Input Error	1404	Local
06/27/2020	17	12	RTD	1, 2	Software Defect, Data Input Error	1414	Local
06/27/2020	17	2-3	RTD	1, 2	Software Defect, Data Input Error	1405	Local
06/27/2020	17	4	RTD	1, 2	Software Defect, Data Input Error	1398	Local
06/27/2020	17	5-6	RTD	2	Data Input Error	1397	Local
06/27/2020	17	7-8	RTD	1, 2	Software Defect, Data Input Error	1394	Local
06/27/2020	17	9-11	RTD	1, 2	Software Defect, Data Input Error	1396	Local

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06/27/2020	18	1,8-9	RTD	1, 2	Software Defect, Data Input Error	1396	Local
06/27/2020	18	10	RTD	1, 2	Software Defect, Data Input Error	1402	Local
06/27/2020	18	11	RTD	1, 2	Software Defect, Data Input Error	1399	Local
06/27/2020	18	12	RTD	1, 2	Software Defect, Data Input Error	1403	Local
06/27/2020	18	2-3	RTD	1, 2	Software Defect, Data Input Error	1391	Local
06/27/2020	18	4-5	RTD	2	Data Input Error	1391	Local
06/27/2020	18	6	RTD	2	Data Input Error	1392	Local
06/27/2020	18	7	RTD	1, 2	Software Defect, Data Input Error	1393	Local
06/27/2020	19	1-2,4-5,8	RTD	1, 2	Software Defect, Data Input Error	1374	Local
06/27/2020	19	10	RTD	1, 2	Software Defect, Data Input Error	1376	Local
06/27/2020	19	11	RTD	1, 2	Software Defect, Data Input Error	1384	Local
06/27/2020	19	12	RTD	1, 2	Software Defect, Data Input Error	1395	Local
06/27/2020	19	3	RTD	1	Software Defect	5	Local
06/27/2020	19	6	RTD	1, 2	Software Defect, Data Input Error	1375	Local
06/27/2020	19	7	RTD	1, 2	Software Defect, Data Input Error	1373	Local
06/27/2020	19	9	RTD	1, 2	Software Defect, Data Input Error	1422	Local
06/27/2020	20	1,3-12	RTD	1	Software Defect	5	Local
06/27/2020	4,16	1-9	RTD	1	Software Defect	5	Local
06/27/2020	5	4-9	RTD	1	Software Defect	5	Local
06/27/2020	9	1-5,7-12	RTD	1	Software Defect	5	Local
06/27/2020	1-4,6-8,12,15-16,20-22	1-4	RTPD	1	Software Defect	5	Local
06/27/2020	13	2-3	RTPD	1	Software Defect	5	Local
06/27/2020	14	4	RTPD	1	Software Defect	5	Local
06/27/2020	17	1	RTPD	1, 2	Software Defect, Data Input Error	1407	Local
06/27/2020	17	2	RTPD	1, 2	Software Defect, Data Input Error	1404	Local
06/27/2020	17	3	RTPD	1, 2	Software Defect, Data Input Error	1402	Local
06/27/2020	17	4	RTPD	1, 2	Software Defect, Data Input Error	1412	Local
06/27/2020	18	1-2	RTPD	1, 2	Software Defect, Data Input Error	1395	Local
06/27/2020	18	3-4	RTPD	1, 2	Software Defect, Data Input Error	1397	Local
06/27/2020	19	1	RTPD	1, 2	Software Defect, Data Input Error	1392	Local
06/27/2020	19	2	RTPD	1, 2	Software Defect, Data Input Error	1374	Local
06/27/2020	19	3	RTPD	1, 2	Software Defect, Data Input Error	1385	Local
06/27/2020	19	4	RTPD	1, 2	Software Defect, Data Input Error	1383	Local
06/27/2020	23	1-2,4	RTPD	1	Software Defect	5	Local
06/27/2020	5,9	1,3-4	RTPD	1	Software Defect	5	Local
06/28/2020	1	1-9	RTD	1	Software Defect	5	Local
06/28/2020	10	4,7-12	RTD	1	Software Defect	5	Local
06/28/2020	11	1-4,7-9	RTD	1	Software Defect	5	Local
06/28/2020	12	3-4,6-12	RTD	1	Software Defect	5	Local
06/28/2020	13	1-11	RTD	1	Software Defect	5	Local
06/28/2020	14	6-9	RTD	1	Software Defect	5	Local
06/28/2020	15	2-7,9-12	RTD	1	Software Defect	5	Local
06/28/2020	16	1-4,6-7,11-12	RTD	1	Software Defect	5	Local
06/28/2020	2	1-3,7-9	RTD	1	Software Defect	5	Local
06/28/2020	21	7-12	RTD	1	Software Defect	5	Local
06/28/2020	24	1-9,11-12	RTD	1	Software Defect	5	Local
06/28/2020	6	2-3,5,7-12	RTD	1	Software Defect	5	Local
06/28/2020	7	1-4,6-12	RTD	1	Software Defect	5	Local
06/28/2020	8	2,5-12	RTD	1	Software Defect	5	Local
06/28/2020	9,17-20,22-23	1-12	RTD	1	Software Defect	5	Local
06/28/2020	1,9-20,23-24	1-4	RTPD	1	Software Defect	5	Local
06/28/2020	2,22	1-2,4	RTPD	1	Software Defect	5	Local
06/28/2020	7,21	4	RTPD	1	Software Defect	5	Local
06/28/2020	8	1,3-4	RTPD	1	Software Defect	5	Local
06/29/2020	1-5,9-15,19,22-24	1-12	RTD	1	Software Defect	5	Local
06/29/2020	17	1-3,7-12	RTD	1	Software Defect	5	Local
06/29/2020	18	1,10-12	RTD	1	Software Defect	5	Local
06/29/2020	20	1-6	RTD	1	Software Defect	5	Local

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06/29/2020	6	1-9	RTD	1	Software Defect	5	Local
06/29/2020	8,16	1-3	RTD	1	Software Defect	5	Local
06/29/2020	1,6,20	1-3	RTPD	1	Software Defect	5	Local
06/29/2020	16,18	1-2	RTPD	1	Software Defect	5	Local
06/29/2020	17	1-2,4	RTPD	1	Software Defect	5	Local
06/29/2020	2-5,9-15,19,22-24	1-4	RTPD	1	Software Defect	5	Local
06/30/2020	1	1-6,8,11-12	RTD	1	Software Defect	5	Local
06/30/2020	13	1-3,7-12	RTD	1	Software Defect	5	Local
06/30/2020	16,23	1-8,12	RTD	1	Software Defect	5	Local
06/30/2020	17	1,11-12	RTD	1	Software Defect	5	Local
06/30/2020	19	1-8,11-12	RTD	1	Software Defect	5	Local
06/30/2020	2-12,14-15,18,20-22	1-12	RTD	1	Software Defect	5	Local
06/30/2020	24	1-6,8,12	RTD	1	Software Defect	5	Local
06/30/2020	1	1-3	RTPD	1	Software Defect	5	Local
06/30/2020	13,24	1-2,4	RTPD	1	Software Defect	5	Local
06/30/2020	17	1	RTPD	5	Data Input Error	1409	Local
06/30/2020	2,4	1,3	RTPD	1	Software Defect	5	Local
06/30/2020	23	1-2	RTPD	1	Software Defect	5	Local
06/30/2020	3,7-12,14-16,18-22	1-4	RTPD	1	Software Defect	5	Local
06/30/2020	5	2-4	RTPD	1	Software Defect	5	Local
06/30/2020	6	3-4	RTPD	1	Software Defect	5	Local
07/01/2020	1	2-9	RTD	1	Software Defect	5	Local
07/01/2020	10	1-5,9-12	RTD	1	Software Defect	5	Local
07/01/2020	11-12	1-12	RTD	1	Software Defect	5	Local
07/01/2020	13	1	RTD	1	Software Defect	5	Local
07/01/2020	14	1-3,9-12	RTD	1	Software Defect	5	Local
07/01/2020	15	3-12	RTD	1	Software Defect	5	Local
07/01/2020	2	1-3,10-12	RTD	1	Software Defect	5	Local
07/01/2020	3	8-12	RTD	1	Software Defect	5	Local
07/01/2020	4	2	RTD	1	Software Defect	5	Local
07/01/2020	5	2-5,8	RTD	1	Software Defect	5	Local
07/01/2020	6	1-9,12	RTD	1	Software Defect	5	Local
07/01/2020	7	1-5,7,12	RTD	1	Software Defect	5	Local
07/01/2020	8	1-4,10	RTD	1	Software Defect	5	Local
07/01/2020	9	6-7,12	RTD	1	Software Defect	5	Local
07/01/2020	1-2	1-3	RTPD	1	Software Defect	5	Local
07/01/2020	10	1-2,4	RTPD	1	Software Defect	5	Local
07/01/2020	11-12,15	1-4	RTPD	1	Software Defect	5	Local
07/01/2020	3,13,16	1	RTPD	1	Software Defect	5	Local
07/01/2020	4	2,4	RTPD	1	Software Defect	5	Local
07/01/2020	5	2-4	RTPD	1	Software Defect	5	Local
07/01/2020	6	1,3	RTPD	1	Software Defect	5	Local
07/01/2020	7	1-2	RTPD	1	Software Defect	5	Local
07/01/2020	8,14	1,4	RTPD	1	Software Defect	5	Local
07/01/2020	9	3-4	RTPD	1	Software Defect	5	Local

### Corrections made through interval replacement: 5

Date	HE	Intervals	Market	#	Reason	Affected Area
07/03/2020	20	1-4	RTD	6	Data Input Error	System
07/03/2020	20	4	RTPD	6	Data Input Error	System

### Corrections made through market rerun: 0

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### Description of Issues:

**1. Software Defect:**

- Invalid EIM price due to a software defect affecting price formation.

Prices were corrected by selective recalculation.

**2. Data Input Error:**

- Invalid EIM congestion due to a data input error related to load distribution factors.

Prices were corrected by selective recalculation.

**3. Data Input Error:**

- Invalid 31580\_CASCADE\_60.0\_31581\_OREGNTRL\_60.0\_BR\_1\_1 congestion due to a data input error related to load distribution factors.

Prices were corrected by selective recalculation.

**4. Data Input Error:**

- Invalid CASCADE\_ITC congestion due to a data input error related to load distribution factors.

Prices were corrected by selective recalculation.

**5. Data Input Error:**

- Invalid shadow price on CAL PS#2 constraint due to incorrect outage set-up.

Prices were corrected by selective recalculation.

**6. Data Input Error:**

- Invalid prices due to incorrect enforcement of a constraint

Prices were corrected by interval replacement.

### Price Fill Report

A price fill occurs whenever a market run failed to publish to the Settlement system. This usually occurs whenever a market run failed, for example when a market fails to come to a solution. It could also occur when an operator decides that a market is not to be run, for example during a contingency event. Automatic price fills also occur in real-time when an operator chooses to utilize the previous interval's solution for the current interval.

Prices are filled according to the rules in CAISO Tariff section 7.7.9 which states that administrative pricing applies to intervals where we have had a market disruption, and

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requires the prices to be set differently depending on the number of consecutive market disruptions.

The number of prices which were adjusted by the fill process is as follows.

### Total number of filled price intervals: 4

Date	HE	Intervals	Market
07/01/2020	15	7	RTD
07/01/2020	15	8	RTD
07/01/2020	15	9	RTD
07/01/2020	16	1	RTPD

Note: Intervals filled are subject to subsequent price corrections where applicable.

### Disconnected Pnode Report

According to Congestion Revenue Rights BPM Section 15, when the IFM cannot identify an electrically connected PNODE within the fixed level of proximity, a post process will be performed to determine the next closest electrically connected PNode and replace the LMP of the disconnected PNode with this price. This price update will be done within the DAM price correction timeline.

The number of prices which were adjusted by the disconnected Pnode process is as follows.

### Total number of hours with disconnected pnode price update: 17

Date	HE
7/7/2020	8-24