

# Price Correction Report

## Week of April 17 – April 21, 2023

### 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, **212** intervals were corrected.

The trade dates covered by this report are:

DAM: 4/12/2023 – 4/18/2023

RTM: 4/10/2023 – 4/16/2023

### ***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.

# Price Correction Report

## Week of April 17 – April 21, 2023

### Price Correction Listing

The following is a list of the corrections made during the week, provided with 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/SP-Tie for each corrected interval is listed left to the Affected Location field, for Energy and FRP respectively. In case of many intervals with the same correction reason, instead of providing the exact count of corrected Pnode/APnode/SP-Tie, the range of Pnode/APnode/SP-Tie affected is provided and listed in another table. Please note that there are only AS price corrections or only constraint shadow price correction for those intervals that have the Count of Corrected Pnode/APnode/SP-Tie columns missing.

### Corrections made through selective recalculation: 212

Date	HE	Intervals	Market	#	Reason	Number of corrected Pnodes/APnodes/ SP-Ties for Energy	Number of corrected Pnodes/APnodes/ SP-Ties for Flex Ramp	Method	Affected Area
04/10/2023	15	11	RTD	1	Software Defect	247		Selective Recalc	Local
04/10/2023	17	11-12	RTD	1	Software Defect	247		Selective Recalc	Local
04/10/2023	23	10-12	RTD	1	Software Defect	247		Selective Recalc	Local
04/10/2023	23	7-8	RTD	1	Software Defect	395		Selective Recalc	Local
04/10/2023	23	9	RTD	1	Software Defect	405		Selective Recalc	Local
04/10/2023	10	3-4	RTPD	5,4	Software Defect	1277	1	Selective Recalc	Local
04/10/2023	10,13	1-2	RTPD	4	Software Defect	247	1	Selective Recalc	Local
04/10/2023	11	1	RTPD	4	Software Defect	247	1	Selective Recalc	Local
04/10/2023	12	1,4	RTPD	4	Software Defect	247	1	Selective Recalc	Local
04/10/2023	12	2-3	RTPD	4	Software Defect	247	2	Selective Recalc	Local
04/10/2023	14	2	RTPD	4	Software Defect	303		Selective Recalc	Local
04/10/2023	15	1	RTPD	1	Software Defect		213	Selective Recalc	Local
04/10/2023	15	2	RTPD	4	Software Defect	247		Selective Recalc	Local
04/10/2023	15	3	RTPD	1	Software Defect		212	Selective Recalc	Local
04/10/2023	15	4	RTPD	4	Software Defect	247		Selective Recalc	Local
04/10/2023	16	1	RTPD	4	Software Defect	247		Selective Recalc	Local
04/10/2023	16	3	RTPD	4	Software Defect	303		Selective Recalc	Local
04/10/2023	17	1,4	RTPD	4	Software Defect	247		Selective Recalc	Local
04/10/2023	17	3	RTPD	4	Software Defect	257		Selective Recalc	Local
04/10/2023	6,9,11	4	RTPD	4	Software Defect	247		Selective Recalc	Local
04/10/2023	7,16	1	RTPD	4	Software Defect	247		Selective Recalc	Local
04/11/2023	11	7	RTD	5	Software Defect	1043		Selective Recalc	Local
04/11/2023	15	10	RTD	6	Software Defect	393		Selective Recalc	Local
04/11/2023	16	1,7	RTD	6	Software Defect	381		Selective Recalc	Local
04/11/2023	17	10	RTD	1	Software Defect	247		Selective Recalc	Local
04/11/2023	19	7	RTD	5	Software Defect	1089		Selective Recalc	Local
04/11/2023	23	2-12	RTD	1	Software Defect	247		Selective Recalc	Local
04/11/2023	8	5-9	RTD	5	Software Defect	1048		Selective Recalc	Local
04/11/2023	9	1-3	RTD	5	Software Defect	1048		Selective Recalc	Local
04/11/2023	9	4	RTD	5	Software Defect	1047		Selective Recalc	Local
04/11/2023	9	7-9	RTD	1	Software Defect	247		Selective Recalc	Local
04/11/2023	10	1,3	RTPD	4	Software Defect	303		Selective Recalc	Local
04/11/2023	13	3-4	RTPD	4	Software Defect	247		Selective Recalc	Local
04/11/2023	15	1,4	RTPD	4	Software Defect	247		Selective Recalc	Local

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04/11/2023	15,21	3	RTPD	4	Software Defect	303		Selective Recalc	Local
04/11/2023	17	1,3	RTPD	1	Software Defect		212	Selective Recalc	Local
04/11/2023	17	4	RTPD	1,4	Software Defect	247	212	Selective Recalc	Local
04/11/2023	19,21	4	RTPD	4	Software Defect	247		Selective Recalc	Local
04/11/2023	22	4	RTPD	4	Software Defect	259		Selective Recalc	Local
04/11/2023	23	1-2	RTPD	4	Software Defect	247		Selective Recalc	Local
04/11/2023	5	4	RTPD	4	Software Defect	313		Selective Recalc	Local
04/11/2023	6	1	RTPD	4	Software Defect	395		Selective Recalc	Local
04/11/2023	6,16-17	2	RTPD	4	Software Defect	303		Selective Recalc	Local
04/11/2023	7	1	RTPD	4	Software Defect	305		Selective Recalc	Local
04/11/2023	7,12	2-3	RTPD	4	Software Defect	247		Selective Recalc	Local
04/11/2023	7,12,20	4	RTPD	4	Software Defect	303		Selective Recalc	Local
04/11/2023	8	3	RTPD	5	Software Defect	1048		Selective Recalc	Local
04/11/2023	9	1	RTPD	5,4	Software Defect	1295		Selective Recalc	Local
04/11/2023	9	2	RTPD	5	Software Defect	1047		Selective Recalc	Local
04/11/2023	9	3	RTPD	4	Software Defect	247		Selective Recalc	Local
04/12/2023	10	5	RTD	5,2	Software Defect	1472		Selective Recalc	Local
04/12/2023	10	6-9,11	RTD	5	Software Defect	1148		Selective Recalc	Local
04/12/2023	11	2	RTD	5	Software Defect	1120		Selective Recalc	Local
04/12/2023	11	4,6	RTD	5	Software Defect	1114		Selective Recalc	Local
04/12/2023	11	5,7	RTD	5	Software Defect	1091		Selective Recalc	Local
04/12/2023	17	8-12	RTD	1	Software Defect	247		Selective Recalc	Local
04/12/2023	19	10-12	RTD	5	Software Defect	1086		Selective Recalc	Local
04/12/2023	20	4	RTD	5	Software Defect	1116		Selective Recalc	Local
04/12/2023	23	11-12	RTD	1	Software Defect	247		Selective Recalc	Local
04/12/2023	7	10-12	RTD	5	Software Defect	1082		Selective Recalc	Local
04/12/2023	8	10-12	RTD	5	Software Defect	1047		Selective Recalc	Local
04/12/2023	8	4	RTD	5	Software Defect	1016		Selective Recalc	Local
04/12/2023	8	7-9	RTD	5	Software Defect	1082		Selective Recalc	Local
04/12/2023	9	4-9	RTD	5	Software Defect	1089		Selective Recalc	Local
04/12/2023	11	1	RTPD	5	Software Defect	1121		Selective Recalc	Local
04/12/2023	11	4	RTPD	4	Software Defect	247		Selective Recalc	Local
04/12/2023	11,24	3	RTPD	4	Software Defect	303		Selective Recalc	Local
04/12/2023	12	3	RTPD	4	Software Defect	247		Selective Recalc	Local
04/12/2023	12	4	RTPD	4	Software Defect	305		Selective Recalc	Local
04/12/2023	17	1-2	RTPD	1	Software Defect		212	Selective Recalc	Local
04/12/2023	19	1,3-4	RTPD	4	Software Defect	247		Selective Recalc	Local
04/12/2023	19	2	RTPD	5	Software Defect	1089		Selective Recalc	Local
04/12/2023	2	3-4	RTPD	4	Software Defect	313		Selective Recalc	Local
04/12/2023	20	1	RTPD	4	Software Defect	303		Selective Recalc	Local
04/12/2023	20-21	2-3	RTPD	4	Software Defect	247		Selective Recalc	Local
04/12/2023	23	3	RTPD	1	Software Defect	247		Selective Recalc	Local
04/12/2023	6,18	2	RTPD	4	Software Defect	303		Selective Recalc	Local
04/12/2023	7	2	RTPD	1	Software Defect		212	Selective Recalc	Local
04/12/2023	7	3	RTPD	1	Software Defect	247	212	Selective Recalc	Local
04/12/2023	7	4	RTPD	5	Software Defect	1081		Selective Recalc	Local
04/12/2023	8	3-4	RTPD	5	Software Defect	1047		Selective Recalc	Local
04/12/2023	9	1	RTPD	4	Software Defect	434		Selective Recalc	Local
04/12/2023	9	2	RTPD	5	Software Defect	1055		Selective Recalc	Local
04/12/2023	9,16-17,21	4	RTPD	4	Software Defect	303		Selective Recalc	Local
04/13/2023	17	7-12	RTD	1	Software Defect	247		Selective Recalc	Local
04/13/2023	7	1,3-12	RTD	1	Software Defect		212	Selective Recalc	Local
04/13/2023	1	1,3-4	RTPD	4	Software Defect	303		Selective Recalc	Local
04/13/2023	15	1	RTPD	5	Software Defect	393		Selective Recalc	Local
04/13/2023	17	4	RTPD	1	Software Defect	247	212	Selective Recalc	Local
04/13/2023	2	1-3	RTPD	4	Software Defect	303		Selective Recalc	Local

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04/13/2023	6	1	RTPD	4	Software Defect	247		Selective Recalc	Local
04/13/2023	6	2,4	RTPD	4	Software Defect	303		Selective Recalc	Local
04/13/2023	7	1-2,4	RTPD	1	Software Defect		212	Selective Recalc	Local
04/13/2023	7	3	RTPD	1	Software Defect	247	212	Selective Recalc	Local
04/13/2023	8	3	RTPD	4	Software Defect	308		Selective Recalc	Local
04/13/2023	9	2	RTPD	4	Software Defect	308		Selective Recalc	Local
04/13/2023	9	4	RTPD	4	Software Defect	247		Selective Recalc	Local
04/14/2023	6	8-12	RTD	3	Software Defect		1594	Selective Recalc	Local
04/14/2023	6	3-4	RTPD	3	Software Defect		1594	Selective Recalc	Local
04/15/2023	17	9	RTD	6	Software Defect	419		Selective Recalc	Local
04/16/2023	17	1	RTD	6	Software Defect	344		Selective Recalc	Local

### Corrections made through interval replacement: 1

Date	HE	Intervals	Market	#	Reason	Affected Area
04/13/2023	7	2	RTD	1	Software Defect	System

### Corrections made through market rerun: 0

### Description of Issues:

**1. Software Defect:**

Incorrect prices due to a software defect impacting the flex ramp test.

Prices were corrected by selective recalculation and Interval replacement.

**2. Data Input Error:**

Incorrect prices due to a data input error impacting resource dispatch.

Prices were corrected by selective recalculation.

**3. Software Defect:**

Invalid prices due to a software defect impacting flex ramp up test.

Prices were corrected by selective recalculation.

**4. Software Defect:**

Invalid prices due to a software defect impacting resource dispatch.

Prices were corrected by selective recalculation.

**5. Software Defect:**

Invalid shadow price due to a software defect impacting pricing formation.

Prices were corrected by selective recalculation.

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### 6. Software Defect:

Invalid prices due to a software issue impacting resource dispatch.

Prices were corrected by selective recalculation.

## 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 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 for energy, AS and GHG: 6

Date	HE	Intervals	Market
04/11/2023	22	7	RTD
04/11/2023	22	8	RTD
04/11/2023	22	11	RTD
04/11/2023	22	12	RTD
04/11/2023	23	1	RTD
04/15/2023	13	3	RTPD

### Total number of filled price intervals for FRP: 6

Date	HE	Intervals	Market
04/11/2023	22	8	RTD
04/11/2023	22	9	RTD
04/11/2023	22	12	RTD
04/11/2023	23	1	RTD
04/11/2023	23	2	RTD
04/15/2023	13	4	RTPD

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

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### 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: 0**