Price Correction Report
Week of April 16 – 20, 2018

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 occured 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, **2673** intervals were corrected.

The trade dates covered by this report are:

DAM: 4/11/2018 – 4/17/2018
RTM: 4/9/2018 – 4/15/2018

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 Listing

California ISO

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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 for those intervals that have the Count of Corrected Pnode/Apnode column missing.

Corrections made through selective recalculation: 2661

Date	HE	Intervals	Market	#	Reason	Number of corrected Pnodes/Apnodes	Affected Area
09Apr2018	18	10	RTD	1, 2, 3	Data Input Error, Software Defect	177	Local
09Apr2018	18	11	RTD	1, 2, 3	Data Input Error, Software Defect	179	Local
09Apr2018	18	12	RTD	1, 2, 3	Data Input Error, Software Defect	183	Local
09Apr2018	18	8	RTD	1, 2, 3	Data Input Error, Software Defect	59	Local
09Apr2018	19	1	RTD	1, 2, 3, 8	Data Input Error, Software Defect	1065	Local
09Apr2018	19	2	RTD	1, 2, 3	Data Input Error, Software Defect	186	Local
09Apr2018	20	9,11-12	RTD	8	Software Defect	837	Local
09Apr2018	21	1	RTD	8	Software Defect	837	Local
09Apr2018	21	10	RTD	1, 2, 3	Data Input Error, Software Defect	61	Local
09Apr2018	21	11	RTD	1, 2, 3	Data Input Error, Software Defect	107	Local
09Apr2018	21	12	RTD	1, 2, 3	Data Input Error, Software Defect	106	Local
09Apr2018	21	7	RTD	1, 2, 3	Data Input Error, Software Defect	113	Local
09Apr2018	21	8-9	RTD	1, 2, 3	Data Input Error, Software Defect	63	Local
09Apr2018	22	4	RTD	1, 2, 3	Data Input Error, Software Defect	58	Local
09Apr2018	22	5	RTD	1, 2, 3	Data Input Error, Software Defect	56	Local
09Apr2018	22	6	RTD	1, 2, 3	Data Input Error, Software Defect	105	Local
09Apr2018	22	7	RTD	1, 2, 3	Data Input Error, Software Defect	107	Local
09Apr2018	1	1	RTPD	1, 2, 6	Data Input Error, Software Defect	498	Local
09Apr2018	18	3	RTPD	1, 2, 3	Data Input Error, Software Defect	182	Local
09Apr2018	18	4	RTPD	1, 2, 3	Data Input Error, Software Defect	191	Local
09Apr2018	19	1	RTPD	1, 2, 3	Data Input Error, Software Defect	189	Local
09Apr2018	19	2	RTPD	1, 2, 3	Data Input Error, Software Defect	188	Local
09Apr2018	19	3	RTPD	1, 2, 3	Data Input Error, Software Defect	193	Local
09Apr2018	20	2	RTPD	1, 2, 3	Data Input Error, Software Defect	86	Local
09Apr2018	20	4	RTPD	8	Software Defect	837	Local
09Apr2018	21	1-4	RTPD	8	Software Defect	837	Local
09Apr2018	22	2	RTPD	1, 2, 3	Data Input Error, Software Defect	69	Local
09Apr2018	22	3	RTPD	1, 2, 3	Data Input Error, Software Defect	57	Local
09Apr2018	22	4	RTPD	1, 2, 3	Data Input Error, Software Defect	53	Local
09Apr2018	23	1	RTPD	1, 2, 3	Data Input Error, Software Defect	84	Local
09Apr2018	23	1-4	RTPD	7	Software Defect		Local
10Apr2018	1	10,12	RTD	1, 2, 3	Data Input Error, Software Defect	108	Local
10Apr2018	1	11	RTD	1, 2, 3	Data Input Error, Software Defect	57	Local
10Apr2018	1	6	RTD	1, 2, 3	Data Input Error, Software Defect	109	Local
10Apr2018	1	7,9	RTD	1, 2, 3	Data Input Error, Software Defect	113	Local
10Apr2018	1	8	RTD	1, 2, 3	Data Input Error, Software Defect	61	Local
10Apr2018	10	1-2,4,10,12	RTD	7	Software Defect	439	Local
10Apr2018	10	3	RTD	1, 2, 3, 5	Data Input Error, Software Defect	761	Local
10Apr2018	11	1-2,6,10-11	RTD	7	Software Defect		Local
10Apr2018	11	3,7-9	RTD	7	Software Defect	439	Local

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10Apr2018	13	5-12	RTD	7	Software Defect	439	Local
10Apr2018	16	1-5,9,11-12	RTD	7	Software Defect		Local
10Apr2018	16	6-8	RTD	7	Software Defect	439	Local
10Apr2018	2	1	RTD	1, 2, 3	Data Input Error, Software Defect	108	Local
10Apr2018	10,13	1-4	RTPD	7	Software Defect	439	Local
10Apr2018	11	1,4	RTPD	7	Software Defect	439	Local
10Apr2018	11	2-3	RTPD	7	Software Defect		Local
10Apr2018	16	1-2	RTPD	7	Software Defect	439	Local
10Apr2018	16	3-4	RTPD	7	Software Defect		Local
10Apr2018	19	4	RTPD	1, 2, 3	Data Input Error, Software Defect	214	Local
11Apr2018	23	3	RTD	7	Software Defect	439	Local
11Apr2018	23	4	RTD	7	Software Defect		Local
11Apr2018	19	4	RTPD	8	Software Defect		Local
11Apr2018	23	1-2	RTPD	7	Software Defect	439	Local
12Apr2018	18	0	DA	4	Data Input Error	248	Local
12Apr2018	19	0	DA	4	Data Input Error	257	Local
12Apr2018	8	0	DA	4	Data Input Error	712	Local
12Apr2018	7	3	RTPD	7	Software Defect		Local
12Apr2018	7	4	RTPD	1, 2, 7	Software Defect	590	Local
13Apr2018	21	1	RTD	1, 2, 9	Software Defect	495	Local
13Apr2018	14	2	RTPD	1, 2, 8	Software Defect	891	Local
13Apr2018	14	4	RTPD	1, 2, 8	Software Defect	867	Local
13Apr2018	17	2	RTPD	1, 2, 8	Software Defect	884	Local
13Apr2018	21	2	RTPD	1, 2, 8	Software Defect	496	Local
13Apr2018	21	3	RTPD	1, 2, 8	Software Defect	497	Local
14Apr2018	19	2	RTPD	7	Software Defect		Local
14Apr2018	19	3	RTPD	1, 2, 7	Software Defect	502	Local
15Apr2018	13	3	RTD	1, 2, 5	Data Input Error, Software Defect	305	Local
15Apr2018	4	9-10	RTD	1, 2, 7	Software Defect	113	Local

The range of corrected Pnode/APnode for the below trade days regarding correction numbers 1 and 2 are 10-60

Date	HE	Intervals	Market	#	Reason	Affected Area
09Apr2018	1-17,20,23-24	1-12	RTD	1,2	Software Defect	Local
09Apr2018	18	1-7,9	RTD	1,2	Software Defect	Local
09Apr2018	19	3-12	RTD	1,2	Software Defect	Local
09Apr2018	21	1-6	RTD	1,2	Software Defect	Local
09Apr2018	22	1-3,8-12	RTD	1,2	Software Defect	Local
09Apr2018	1,23	2-4	RTPD	1,2	Software Defect	Local
09Apr2018	18	1-2	RTPD	1,2	Software Defect	Local
09Apr2018	19	4	RTPD	1,2	Software Defect	Local
09Apr2018	2-17,21,24	1-4	RTPD	1,2	Software Defect	Local
09Apr2018	20	1,3-4	RTPD	1,2	Software Defect	Local
09Apr2018	22	1	RTPD	1,2	Software Defect	Local
10Apr2018	1	1-5	RTD	1,2	Software Defect	Local
10Apr2018	10	1-2,4-12	RTD	1,2	Software Defect	Local
10Apr2018	2	2-12	RTD	1,2	Software Defect	Local
10Apr2018	23	1-3,7-8	RTD	2	Software Defect	Local
10Apr2018	23	1-8,10-12	RTD	1	Software Defect	Local
10Apr2018	3-9,11-22,24	1-12	RTD	1,2	Software Defect	Local
10Apr2018	1-18,20-24	1-4	RTPD	1	Software Defect	Local
10Apr2018	1-18,21-22,24	1-4	RTPD	2	Software Defect	Local
10Apr2018	19	1-3	RTPD	1,2	Software Defect	Local
10Apr2018	20	2-3	RTPD	2	Software Defect	Local
10Apr2018	23	1-2,4	RTPD	2	Software Defect	Local
11Apr2018	1-8,10-12,14-22	1-12	RTD	2	Software Defect	Local
11Apr2018	1-8,10-22	1-12	RTD	1	Software Defect	Local
11Apr2018	23	1-4	RTD	1,2	Software Defect	Local

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11Apr2018	24	3-12	RTD	1,2	Software Defect	Local
11Apr2018	13	1-6,10-12	RTD	2	Software Defect	Local
11Apr2018	9	1-6	RTD	1,2	Software Defect	Local
11Apr2018	1-8,10-24	1-4	RTPD	1,2	Software Defect	Local
11Apr2018	9	1-3	RTPD	1,2	Software Defect	Local
12Apr2018	1,5-16,19-24	1-12	RTD	2	Software Defect	Local
12Apr2018	1-24	1-12	RTD	1	Software Defect	Local
12Apr2018	17	1,3-12	RTD	2	Software Defect	Local
12Apr2018	18	1,3-4,6-12	RTD	2	Software Defect	Local
12Apr2018	2	1-6	RTD	2	Software Defect	Local
12Apr2018	4	7-12	RTD	2	Software Defect	Local
12Apr2018	1,5-6,8-24	1-4	RTPD	2	Software Defect	Local
12Apr2018	1-6,8-24	1-4	RTPD	1	Software Defect	Local
12Apr2018	2,7	1-3	RTPD	2	Software Defect	Local
12Apr2018	4	4	RTPD	2	Software Defect	Local
12Apr2018	7	1-3	RTPD	1	Software Defect	Local
13Apr2018	1-3,5-10,12-16,19-20,22-24	1-12	RTD	1	Software Defect	Local
13Apr2018	1-3,5-9,12-13,19-20,22-24	1-12	RTD	2	Software Defect	Local
13Apr2018	10	1-9	RTD	2	Software Defect	Local
13Apr2018	11	2,4-12	RTD	2	Software Defect	Local
13Apr2018	11	2-12	RTD	1	Software Defect	Local
13Apr2018	14	1-6,9-12	RTD	2	Software Defect	Local
13Apr2018	15	1-2	RTD	2	Software Defect	Local
13Apr2018	16	2,5-7	RTD	2	Software Defect	Local
13Apr2018	17	1-3,9-12	RTD	1,2	Software Defect	Local
13Apr2018	18	2,4,7-12	RTD	1,2	Software Defect	Local
13Apr2018	4	1-3, 5-12	RTD	1, 2	Software Defect	Local
13Apr2018	21	2-12	RTD	1, 2	Software Defect	Local
13Apr2018	1-11,13,15-16,18-20,22-24	1-4	RTPD	2	Software Defect	Local
13Apr2018	1-13,15-16,18-20,22-24	1-4	RTPD	1	Software Defect	Local
13Apr2018	12	1-3	RTPD	2	Software Defect	Local
13Apr2018	14	1,3	RTPD	1,2	Software Defect	Local
13Apr2018	17	1,3-4	RTPD	1	Software Defect	Local
13Apr2018	17	3-4	RTPD	2	Software Defect	Local
13Apr2018	21	1,4	RTPD	1,2	Software Defect	Local
14Apr2018	1-3, 5-23	1-12	RTD	1,2	Software Defect	Local
14Apr2018	4	1-3, 5-12	RTD	1,2	Software Defect	Local
14Apr2018	24	1-3, 5-12	RTD	1,2	Software Defect	Local
14Apr2018	1-18,21-24	1-4	RTPD	1,2	Software Defect	Local
14Apr2018	20	1-3	RTPD	1,2	Software Defect	Local
14Apr2018	19	1-2,4	RTPD	1,2	Software Defect	Local
15Apr2018	1-3,5-10,14-24	1-12	RTD	2	Software Defect	Local
15Apr2018	1-3,5-12,14-24	1-12	RTD	1	Software Defect	Local
15Apr2018	11	1-3,7-11	RTD	2	Software Defect	Local
15Apr2018	12	1-7,11-12	RTD	2	Software Defect	Local
15Apr2018	13	1-2,4-12	RTD	1,2	Software Defect	Local
15Apr2018	4	1-8,11-12	RTD	1,2	Software Defect	Local
15Apr2018	1-11,14-19, 21-24	1-4	RTPD	2	Software Defect	Local
15Apr2018	1-19,21-24	1-4	RTPD	1	Software Defect	Local
15Apr2018	20	1-3	RTPD	1, 2	Software Defect	Local
15Apr2018	12-13	1-2	RTPD	2	Software Defect	Local

Corrections made through interval replacement: 12

Date	HE	Intervals	Market	#	Reason	Affected Area
11Apr2018	23	8-12	RTD	1, 2, 10	Software Defect	System
11Apr2018	24	1-2	RTD	1, 2, 10	Software Defect	System

13Apr2018	4	4	RTD	1, 2, 11	Software Defect	System
14Apr2018	4	4	RTD	1, 2, 11	Software Defect	System
14Apr2018	24	4	RTD	1, 2, 12	Software Defect	System
14Apr2018	20	4	RTPD	1, 2, 12	Software Defect	System
15Apr2018	20	4	RTPD	1, 2, 12	Software Defect	System

Corrections made through market rerun: **0**

Description of Issues:

1. **Software Defect:**
   - Invalid prices due to a software defect impacting pricing node LMPs.

   Prices were corrected by selective recalculation or interval replacement

2. **Software Defect:**
   - Invalid loss components of trading hubs LMPs due to a software defect affecting loss calculations.

   Prices were corrected by selective recalculation or interval replacement.

3. **Data Input Error:**
   - Invalid congestion due to a modeling issue impacting switch status.

   Prices were corrected by selective recalculation.

4. **Data Input Error:**
   - Invalid congestion on the constraint due to the incorrect modeling of a transmission outage.

   Prices were corrected by selective recalculation.

5. **Data Input Error:**
   - Invalid congestion on the constraint due to a data input error impacting resource shift factors.

   Prices were corrected by selective recalculation and interval replacement.

6. **Data Input Error:**
   - Invalid prices due to a data input error impacting resource schedules.

   Prices were corrected by selective recalculation.

7. **Software Defect:**
   - Invalid prices due to a software defect impacting EIM functionality.

   Prices were corrected by selective recalculation.

8. **Software Defect:**
    - Invalid EIM prices due to a software defect impacting pricing.

    Prices were corrected by selective recalculation.

9. **Software Defect:**
    - Invalid EIM price due to a software defect impacting flex ramp pricing.

    Prices were corrected by selective recalculation.

10. **Software Defect:**
    - Invalid prices due to a software defect impacting RTCD runs.

    Prices were corrected by interval replacement.

11. **Software Defect:**
    - Invalid SP-Tie prices due to a software issue with missing SP-Tie prices.

    Prices were corrected by interval replacement.

12. **Software Defect:**
    - Invalid DLAP price due to software defect impacting resource dispatch.

    Prices were corrected by interval replacement.

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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 consective market distrputions.

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

Total number of filled price intervals: 9

Date	HE	Interval	Market
11APR2018	18	7	RTD
11APR2018	18	8	RTD
11APR2018	23	10	RTD
11APR2018	23	11	RTD
11APR2018	24	1	RTD
11APR2018	24	2	RTD
13APR2018	4	12	RTD
13APR2018	14	6	RTD
15APR2018	1	1	RTD

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