January 14, 2016

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

> **Re: California Independent System Operator Corporation**
> **Docket Nos. ER06-615-___ and ER07-1257-___**
> **Market Disruption Report**

Dear Secretary Bose:

The California Independent System Operator Corporation (CAISO) hereby submits its November/December report covering Market Disruption reportable events under Section 7.7.15 of its FERC Electric Tariff (ISO Tariff) that occurred from November 16, 2015 to December 15, 2015.[1]

Please contact the undersigned with any questions.

Respectfully submitted,

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[1]   The ISO submits the Market Disruption report pursuant to *California Independent System Operator Corp.*, 126 FERC ¶ 61,211 (2009), and Section 7.7.15.4 of the ISO Tariff.

Market Disruption Report
November 16, 2015
to
December 15, 2015

January 14, 2016

CAISO Market Quality and Renewable Integration

I.   Background

A Market Disruption is an action or event that causes a failure of a CAISO Market, related to system operation issues or System Emergencies.[1] Pursuant to Section 7.7.15 of the ISO Tariff, the California Independent System Operator Corporation (ISO or CAISO) can take one or more of a number of specified actions in the event of a Market Disruption, to prevent a Market Disruption, or to minimize the extent of a Market Disruption. The ISO reports Market Disruption occurrence in any of the following circumstances:

- When any of the ISO market processes fail to publish, including the Integrated Forward Market (IFM), Residual Unit Commitment (RUC), the Real-Time Market, which includes the Hour-Ahead Scheduling Process (HASP), Fifteen Minute Market (FMM), and the Real-Time Dispatch (RTD) processes;

- When the ISO manually overrides the closing of the Day-Ahead Market; or

- Any time that the ISO removes Bids from a CAISO Market to prevent a Market Disruption or to minimize the extent of a Market Disruption.

The Market Disruption report contains the following information:

- The frequency and types of actions taken by the ISO pursuant to Section 7.7.15;

- The nature of the Market Disruptions that caused the ISO to take action, or the Market Disruptions that were successfully prevented or minimized by the ISO as a result of taking action, and the ISO's rationale for taking such actions pursuant to Section 7.7.15;

- Information about the Bids (including Self-Schedules) removed pursuant to Section 7.7.15 (*i.e.*, megawatt quantity, point of interconnection, specification of the Day-Ahead versus Real-Time Bid, and Energy or Ancillary Services Bid); and

- The ISO's rationale for its removal of Bids (including Self-Schedules) pursuant to Section 7.7.15.[2]

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[1]   These system operation issues or System Emergencies are referred to in Sections 7.6 and 7.7, respectively, of the ISO Tariff. ISO Tariff, Appendix A, definition of Market Disruption. Capitalized terms not otherwise defined herein have the meanings set forth in the ISO Tariff.

[2]   *Id.* at P 29 & n.29.

II.   Report on Market Disruptions Occurring from November 16, 2015 through December 15, 2015

The ISO's report on Market Disruptions that occurred during the time period from November 16, 2015 through December 15, 2015, is provided in Table 1 and Attachment A below. Attachment A includes an entry for each reportable Market Disruption event and each entry also indicates:

(1) The date of the Market Disruption;

(2) The hour and Dispatch Interval when the Market Disruption ended;

(3) The type of CAISO Market in which the Market Disruption occurred; and

(4) A description of the nature of the Market Disruption, the nature of any actions taken by the ISO, the rationale for such actions, and the Market Disruption prevented or minimized as a result of taking such actions.

For each of the CAISO Markets, Table 1 lists the number of Market Disruptions and the number of times that the CAISO removed Bids (including Self-Schedules) during the time period covered by this report. As shown in Table 1, there were a total of 142 Market Disruptions for the reporting period. Table 1 also indicates that the CAISO did not remove any Bids (including Self-Schedules) in any of its markets during the reporting period.

Table 1: Summary of Market Disruption Report

Type of CAISO Market	Market Disruption or Reportable Events	Removal of Bids (including Self-Schedules)
Day-Ahead		
IFM	0	0
RUC	0	0
Real-Time		
Fifteen Minute Market Interval 1	11	0
Fifteen Minute Market Interval 2	11	0
Fifteen Minute Market Interval 3	11	0
Fifteen Minute Market Interval 4	12	0
Real-Time Dispatch	97	0

Table 1 above shows the market disruptions in the real time market in order to incorporate the FMM binding intervals.

A majority of the RTD and FMM instances occurred on November 16th and November 27th. The frequency of RTD failures increased from 80 to 97 failures in

comparison to the November 2015 Report. RTD failures accounted for approximately 68 percent of all of the Market Disruptions during this reporting period.

The following dates were when the most failures occurred. On November 16th, there were a total of 27 (8 FMM and 19 RTD) disruptions due to an issue at the Alhambra control center that forced operations to shift to the Folsom control center. There were issues when transferring control resulting in a lot of lost intervals. On November 27th there were 83 (25 FMM and 58 RTD) disruptions due to a network outage resulting in a lot of lost intervals.

ATTACHMENT A

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California Independent System Operator Corporation Market Disruption Report January 14, 2016
Table 3: Market Disruptions, Nature of Actions Taken by the California ISO, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
1	11/16/2015	7	3	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
2	11/16/2015	7	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
3	11/16/2015	7	5	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
4	11/16/2015	7	6	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
5	11/16/2015	7	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
6	11/16/2015	7	8	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
7	11/16/2015	7	9	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
8	11/16/2015	7	10	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
9	11/16/2015	7	11	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
10	11/16/2015	7	12	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
11	11/16/2015	8	1	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
12	11/16/2015	8	1	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
13	11/16/2015	8	2	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
14	11/16/2015	8	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
15	11/16/2015	8	3	RTD	RTD failed due to application time-out. Loss clearing payload and LMP filled from previous good interval.
16	11/16/2015	8	3	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
17	11/16/2015	8	4	RTD	RTD results were blocked and previous solution used.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
18	11/16/2015	8	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
19	11/16/2015	8	5	RTD	RTD results were blocked and previous solution used.
20	11/16/2015	8	6	RTD	RTD Broadcast failed. Loss clearing payload and LMP filled from previous good interval.
21	11/16/2015	8	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
22	11/16/2015	8	8	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
23	11/16/2015	8	9	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
24	11/16/2015	8	10	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
25	11/16/2015	8	11	RTD	RTD results were blocked and previous solution used.
26	11/16/2015	9	1	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
27	11/16/2015	9	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
28	11/17/2015	13	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval., Software failure / Unplanned outage
29	11/17/2015	14	1	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval., Software failure / Unplanned outage
30	11/24/2015	20	4	FMM	FMM was run in manual, Planned maintenance. Patching.
31	11/24/2015	20	7	RTD	RTD was run in manual, Planned maintenance. Patching.
32	11/24/2015	20	8	RTD	RTD was run in manual, Planned maintenance. Patching.
33	11/24/2015	20	9	RTD	RTD was run in manual, Planned maintenance. Patching.
34	11/24/2015	20	10	RTD	RTD was run in manual, Planned maintenance. Patching.
35	11/24/2015	20	11	RTD	RTD was run in manual, Planned maintenance. Patching.
36	11/24/2015	20	12	RTD	RTD was run in manual, Planned maintenance. Patching.
37	11/24/2015	21	1	RTD	RTD was run in manual, Planned maintenance. Patching.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
38	11/24/2015	21	1	FMM	FMM was run in manual, Planned maintenance. Patching.
39	11/27/2015	9	3	FMM	FMM failed due to application time-out. Loss clearing payload and LMP filled from previous good interval.
40	11/27/2015	9	4	FMM	FMM failed due to application time-out. Loss clearing payload and LMP filled from previous good interval.
41	11/27/2015	10	1	FMM	FMM failed due to application time-out. Loss clearing payload and LMP filled from previous good interval.
42	11/27/2015	10	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
43	11/27/2015	10	3	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
44	11/27/2015	10	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
45	11/27/2015	10	9	RTD	RTD failed due application problem. Loss clearing payload and LMP filled from previous good interval.
46	11/27/2015	10	10	RTD	RTD failed due application problem. Loss clearing payload and LMP filled from previous good interval.
47	11/27/2015	10	11	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
48	11/27/2015	10	12	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
49	11/27/2015	11	1	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
50	11/27/2015	11	1	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
51	11/27/2015	11	2	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
52	11/27/2015	11	2	HASP	Software failure / Unplanned outage
53	11/27/2015	11	2	HASP	Software failure / Unplanned outage
54	11/27/2015	11	3	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
55	11/27/2015	11	3	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
56	11/27/2015	11	4	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
57	11/27/2015	11	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
58	11/27/2015	11	5	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
59	11/27/2015	11	6	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
60	11/27/2015	11	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
61	11/27/2015	11	8	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
62	11/27/2015	11	9	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
63	11/27/2015	11	10	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
64	11/27/2015	11	11	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
65	11/27/2015	11	12	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
66	11/27/2015	12	1	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
67	11/27/2015	12	1	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
68	11/27/2015	12	2	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
69	11/27/2015	12	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
70	11/27/2015	12	3	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
71	11/27/2015	12	3	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
72	11/27/2015	12	4	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
73	11/27/2015	12	5	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
74	11/27/2015	12	6	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
75	11/27/2015	14	3	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
76	11/27/2015	14	11	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
77	11/27/2015	14	12	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
78	11/27/2015	15	1	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
79	11/27/2015	15	1	FMM	FMM failed due to application time-out. Loss clearing payload and LMP filled from previous good interval.
80	11/27/2015	15	2	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
81	11/27/2015	15	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
82	11/27/2015	15	3	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
83	11/27/2015	15	3	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
84	11/27/2015	15	4	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
85	11/27/2015	15	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
86	11/27/2015	15	5	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
87	11/27/2015	15	6	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
88	11/27/2015	15	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
89	11/27/2015	15	8	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
90	11/27/2015	15	9	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
91	11/27/2015	15	10	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
92	11/27/2015	15	11	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
93	11/27/2015	15	12	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
94	11/27/2015	16	1	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
95	11/27/2015	16	1	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
96	11/27/2015	16	2	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
97	11/27/2015	16	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
98	11/27/2015	16	3	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
99	11/27/2015	16	3	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
100	11/27/2015	16	4	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
101	11/27/2015	16	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
102	11/27/2015	16	5	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
103	11/27/2015	16	6	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
104	11/27/2015	16	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
105	11/27/2015	16	8	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
106	11/27/2015	16	9	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
107	11/27/2015	16	10	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
108	11/27/2015	16	11	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
109	11/27/2015	16	12	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
110	11/27/2015	17	1	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
111	11/27/2015	17	1	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
112	11/27/2015	17	2	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
113	11/27/2015	17	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
114	11/27/2015	17	3	RTD	RTD results were blocked and previous solution used.
115	11/27/2015	17	4	RTD	RTD results were blocked and previous solution used.
116	11/27/2015	17	5	RTD	RTD results were blocked and previous solution used.
117	11/27/2015	17	6	RTD	RTD results were blocked and previous solution used.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
118	11/27/2015	17	7	RTD	RTD results were blocked and previous solution used.
119	11/27/2015	18	4	RTD	RTD failed due to application time-out. Loss clearing payload and LMP filled from previous good interval.
120	11/27/2015	18	5	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
121	11/27/2015	19	2	RTD	RTD Broadcast failed. Loss clearing payload and LMP filled from previous good interval.
122	11/30/2015	20	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval. Patching.
123	11/30/2015	20	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval. Patching.
124	11/30/2015	20	8	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval. Patching.
125	12/2/2015	23	1	DSTUC	DSTUC did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
126	12/3/2015	15	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
127	12/3/2015	15	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
128	12/3/2015	15	8	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
129	12/3/2015	15	9	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
130	12/3/2015	16	1	DSTUC	DSTUC did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
131	12/8/2015	20	4	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
132	12/8/2015	20	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
133	12/8/2015	20	8	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
134	12/8/2015	20	9	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
135	12/8/2015	20	10	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
136	12/8/2015	21	1	FMM	FMM did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
137	12/8/2015	21	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.

Count	Date	Hour	Interval	Market	Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions
138	12/10/2015	3	2	HASP	HASP did not run due to application problem. This interval was filled either automatically or interactively. MQS published Pnode clearing and resource awards for this interval.
139	12/10/2015	15	4	RTD	RTD results were blocked and previous solution used.
140	12/11/2015	14	5	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
141	12/11/2015	14	6	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.
142	12/11/2015	14	7	RTD	RTD did not run due to application problem. Loss clearing payload and LMP filled from previous good interval.

Notes:
Integrated Forward Market (IFM): The Day-Ahead Market run in which the ISO conducts the market for purchases and sales of Energy for all hours of the next Trading Day based on submitted supply and demand bids, and performs the procurement of Ancillary Services.
Residual Unit Commitment (RUC): The Day-Ahead Market run in which the ISO conducts unit commitment of additional resources based on submitted availability bids and the forecast of demand for every hour of the next Trading Day.
Fifteen Minute Market (FMM) Interval 1: The first of a series of four market runs conducted every Trading Hour in advance of the Operating Hour. In this run the ISO conducts the Market Power Mitigation and Reliability Requirement Determination for submitted Bids, which applies to all of the Real-Time Market processes for the given Trading Hour. In this interval the ISO also conducts the procurement of incremental Ancillary Services from internal resources and dynamic external resources.
Fifteen Minute Market (FMM) Interval 2: The second of a series of four market runs conducted every Trading Hour in advance of the Operating Hour during which the ISO conducts the HASP. In the HASP, the ISO conducts the procurement and sale of Energy and Ancillary services from non-dynamic System Resources based on submitted Bids and the CAISO Forecast of CAISO Demand. In this interval the ISO also conducts the advisory procurement of incremental Ancillary Services from internal resources and dynamic external resources from T to T+60 minutes and procurement for the given Trading Hour.

Fifteen Minute Market (FMM) Interval 3: The third of a series of four market runs conducted every Trading Hour. During this interval the ISO conducts the commitment of internal Short-Start and Fast Start Units for the Time Horizon of T-30 minutes to T+240 minutes. In this interval the ISO also conducts the procurement of incremental Ancillary Services from internal resources and dynamic external resources for the given Trading Hour.
Fifteen Minute Market (FMM) Interval 4: The fourth of a series of four market runs conducted every Trading Hour. This interval is for the Fifteen Minute Market for the T-105 minutes to T+60 minutes time horizon. In this interval the ISO also conducts 15-minute Ancillary Service Awards for non-Hourly System Resources, internal resources and dynamic external resources for the given Trading Hour.
Real-Time Dispatch (RTD): The five minute interval of any given Operating Hour during which the ISO conducts the market for Energy based on submitted bids and the CAISO Forecast of CAISO Demand.

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 14th day of January, 2016.

/s/ Jennifer Rotz

Jennifer Rotz