



August 15, 2012

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 (ISO) hereby submits its June/July report covering Market Disruptions reportable events under Section 7.7.15 of its FERC Electric Tariff (ISO Tariff) that occurred from June 16, 2012 to July 15, 2012.¹

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.



California ISO
Shaping a Renewed Future

Market Disruption Report June 16, 2012 to July 15, 2012

August 15, 2012

ISO Department of Market Analysis and Development

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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”), Hour-Ahead Scheduling Process (“HASP”), Real-Time Unit Commitment (“RTUC”), or 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

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 June 16, 2012 through July 15, 2012

The ISO’s report on Market Disruptions that occurred during the time period from June 16, 2011 through July 15, 2012, 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 ISO removed Bids (including Self-Schedules) during the time period covered by this report. As shown in Table 1, there were a total of 65 Market Disruptions for the reporting period, all of which occurred in the real-time. Table 1 also indicates that the ISO 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		
Real-Time Unit Commitment Interval 1	1	0
Real-Time Unit Commitment Interval 2	5	0
Real-Time Unit Commitment Interval 3	4	0
Real-Time Unit Commitment Interval 4	2	0
Real-Time Dispatch	53	0

Table 1 and Attachment A indicate that there were 12 instances of RTUC failures, including 5 HASP failures. The HASP failures were mostly caused by missing clean bids, HASP software issues and input data push problem. RTUC failures were mostly caused by software issues, database operation problem and broadcast failures.

The frequency of RTD failures in this report was 53. Most of the RTD failures were due to application run failures, RTD solutions blocked with previous solutions used, and other reasons such as broadcast results failures. In particular, blocked solutions with previous solutions used accounted for about 58.5% of the total RTD disruptions during this reporting period.

ATTACHMENT A

**California Independent System Operator Corporation
Market Disruption Report
August 16, 2012**

Table 1: 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	6/16/2012	1	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
2	6/16/2012	1	2	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
3	6/16/2012	1	4	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
4	6/16/2012	1	10	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
5	6/16/2012	2	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
6	6/16/2012	2	2	HASP	HASP failed due to software issue. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
7	6/16/2012	2	3	RTUC	RTUC failed due to software issue. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
8	6/16/2012	2	4	RTUC	RTUC failed due to software issue. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
9	6/16/2012	2	11	RTD	RTD failed due to pre dispatch failure. Loss clearing payload and LMP filled from previous good interval.
10	6/16/2012	9	4	RTUC	RTUC failed. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
11	6/16/2012	9	8	RTD	RTD failed due to broadcast data issue. 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
12	6/16/2012	23	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
13	6/16/2012	23	2	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
14	6/17/2012	20	12	RTD	RTD failed due to broadcast data issue. Loss clearing payload and LMP filled from previous good interval.
15	6/17/2012	21	8	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
16	6/18/2012	24	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
17	6/18/2012	24	2	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
18	6/19/2012	23	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
19	6/19/2012	23	2	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
20	6/20/2012	24	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
21	6/21/2012	1	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
22	6/22/2012	17	9	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
23	6/22/2012	17	11	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
24	6/22/2012	18	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
25	6/23/2012	3	2	HASP	HASP failed due to SIBR problem causing clean bids not being processed. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
26	6/23/2012	3	12	RTD	RTD failed due to broadcast data issue. Loss clearing payload and LMP filled from previous good interval.
27	6/23/2012	21	3	RTUC	RTUC failed due to database operation problem. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
28	6/24/2012	14	7	RTD	RTD failed due to broadcast data issue. 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
29	6/25/2012	1	11	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
30	6/25/2012	5	3	RTUC	RTUC failed due to broadcast failure. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
31	6/25/2012	5	5	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
32	6/25/2012	5	6	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
33	6/25/2012	5	7	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
34	6/25/2012	6	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
35	6/25/2012	6	2	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
36	6/25/2012	10	11	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
37	6/25/2012	11	12	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
38	6/25/2012	16	3	RTUC	RTUC failed due to software issue. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
39	6/26/2012	23	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
40	6/28/2012	9	12	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
41	6/28/2012	10	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
42	6/28/2012	10	3	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
43	6/28/2012	15	7	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
44	6/28/2012	15	8	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
45	7/1/2012	11	2	HASP	HASP failed due to input data push issue. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
46	7/2/2012	1	3	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
47	7/3/2012	3	2	HASP	HASP failed. 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
48	7/4/2012	1	6	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
49	7/4/2012	10	4	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
50	7/4/2012	10	5	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
51	7/5/2012	1	2	HASP	HASP failed due to optimization software issue. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
52	7/5/2012	2	1	RTUC	RTUC failed due to manual abort to update bias. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
53	7/9/2012	7	4	RTD	RTD failed due to inappropriate Contingency run. Loss clearing payload and LMP filled from previous good interval.
54	7/9/2012	7	5	RTD	RTD failed due to inappropriate Contingency run. Loss clearing payload and LMP filled from previous good interval.
55	7/11/2012	15	11	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
56	7/11/2012	15	12	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
57	7/11/2012	16	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
58	7/11/2012	16	2	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
59	7/11/2012	21	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
60	7/11/2012	21	2	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
61	7/12/2012	22	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
62	7/13/2012	1	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
63	7/13/2012	2	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
64	7/14/2012	1	1	RTD	RTD failed. Loss clearing payload and LMP filled from previous good interval.
65	7/15/2012	1	1	RTD	RTD failed. 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.					
Real-Time Unit commitment (RTUC) Interval 1: The first of a series of four market runs conducted every Trading Hour in advance of the					

<p>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.</p>
<p>Real-Time Unit commitment (RTUC) 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.</p>
<p>Real-Time Unit commitment (RTUC) 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.</p>
<p>Real-Time Unit commitment (RTUC) Interval 4: The fourth of a series of four market runs conducted every Trading Hour. This interval is for the Real-time Unit Commitment 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.</p>
<p>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.</p>

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 15th day of August 2012.

Is/ Anna Pascuzzo

Anna Pascuzzo