



California Independent
System Operator Corporation

July 15, 2011

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 May/June report covering Market Disruptions reportable events under Section 7.7.15 of its FERC Electric Tariff (ISO Tariff) that occurred from May 16, 2011 to June 15, 2011.¹

Please contact the undersigned with any questions.

Respectfully submitted,

By: /s/ Anna McKenna

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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 May 16, 2011 to June 15, 2011

July 15, 2011

ISO Department of Market Services

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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 interprets this to mean that a Market Disruption occurs and the ISO is obligated to report its 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 May 16, 2011 through June 15, 2011

The ISO’s report on Market Disruptions that occurred during the time period from May 16, 2011 through June 15, 2011, 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 95 Market Disruptions for the reporting period, all of which occurred in the Real-Time Market (RTM). The number of Market Disruptions increased as compared with the June 2011 report. 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	4	0
Real-Time Unit Commitment Interval 2	7	0
Real-Time Unit Commitment Interval 3	8	0
Real-Time Unit Commitment Interval 4	5	0
Real-Time Dispatch	71	0

Table 1 and Attachment A indicate that there were 24 instances of RTUC failures, including 7 HASP failures. The count of RTUC failures and HASP

failures increased by 15 compared with the June 2011 Report. Most of the RTUC failures (including the HASP failures) were caused by software application failure, software application not running, and database issue. The frequency of RTD failures increased to 71 from 23 of such instances reported in the June 2011 Report. Most of the RTD failures were due to software application failure, software application timing out, database issue, and broadcast results failure. RTD failures accounted for approximately 75 percent of all of the Market Disruptions during this reporting period.

On May 23, seven RTD failures occurred and most of which were due to software deployment. At the same day five RTUC failures and two HASP failures occurred due to either database issues or software deployment.

On May 25, seven RTD failures occurred.

On May 26, eight RTD failures occurred due to ramp rate limitation, software deployment, etc. At the same day three RTUC failures and one HASP failure occurred due to either software deployment or broadcast issue.

On June 1, eleven RTD failures occurred due to either planned outages or other reasons.

On June 6, two RTD failures and two HASP failures occurred due to either software deployment or ramp rate limitation. At the same day three RTUC failures occurred due to either software deployment or broadcast issue.

On June 8, two RTD failures, two RTUC failures, and one HASP failure occurred.

On June 9, five RTD failures occurred due to new model deployment and other reasons.

On February 8, 2011, the ISO suspended the following intertie locations from the list of convergence bidding eligible locations due to real-time physical schedule cuts:

INTERM1G_7_N501
GONDER_2_N501
MONA_3_N501
MARKETPL_5_N501
MEADN_2_N501
MEAD_5_N501
WESTWING_5_N501
FOURCORN_3_N501
MCCULLGX_5_N501

The ISO exercised its authority under Section 7.9, 7.7.15 and 31.8 of the ISO tariff. The rules implemented to enforce tariff section 31.8 do not work at the identified suspended locations. The suspension continues until further notice.

ATTACHMENT A

**California Independent System Operator Corporation
Market Disruption Report
July 15, 2011**

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	5/17/2011	11	7	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
2	5/20/2011	8	8	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
3	5/21/2011	3	2	RTD	Broadcast of RTD results missing. Loss clearing payload and LMP filled from last good interval.
4	5/21/2011	2	2	HASP	HASP did not run due to bids not coming in. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
5	5/22/2011	1	2	RTD	RTD failed due to operator aborted run. Loss clearing payload and LMP filled from last good interval.
6	5/23/2011	5	2	HASP	HASP failed due to SIBR database and workflow issues. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
7	5/23/2011	5	3	RTUC	RTUC did not run due to SIBR database and workflow issues. 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
8	5/23/2011	5	4	RTUC	RTUC did not run due to SIBR database and workflow issues. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
9	5/23/2011	14	4	RTUC	RTUC did not run due to OTSL deployment. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
10	5/23/2011	14	6	RTD	RTD did not run due to OTSL deployment. Loss clearing payload and LMP filled from last good interval.
11	5/23/2011	14	7	RTD	RTD did not run due to OTSL deployment. Loss clearing payload and LMP filled from last good interval.
12	5/23/2011	14	8	RTD	RTD did not run due to OTSL deployment. Loss clearing payload and LMP filled from last good interval.
13	5/23/2011	14	9	RTD	RTD did not run due to OTSL deployment. Loss clearing payload and LMP filled from last good interval.
14	5/23/2011	15	1	RTUC	RTUC did not run due to OTSL deployment. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
15	5/23/2011	15	2	HASP	HASP did not run due to OTSL deployment. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
16	5/23/2011	15	3	RTUC	RTUC did not run due to OTSL deployment. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
17	5/23/2011	18	1	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
18	5/23/2011	19	1	RTD	RTD failed. Loss clearing payload and LMP filled from last 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
19	5/23/2011	19	2	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
20	5/25/2011	9	6	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
21	5/25/2011	9	7	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
22	5/25/2011	9	11	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
23	5/25/2011	9	12	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
24	5/25/2011	10	1	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
25	5/25/2011	10	11	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
26	5/25/2011	10	12	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
27	5/26/2011	2	3	RTD	RTD failed due to ramp rate infeasibility. Loss clearing payload and LMP filled from last good interval.
28	5/26/2011	4	8	RTD	RTD failed due to ramp rate infeasibility. Loss clearing payload and LMP filled from last good interval.
29	5/26/2011	19	2	RTD	RTD failed due to deployment of patch 5.6.0.33. Loss clearing payload and LMP filled from last good interval.
30	5/26/2011	19	2	HASP	HASP failed due to deployment of patch 5.6.0.33. 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
31	5/26/2011	19	3	RTUC	RTUC did not run due to deployment of patch 5.6.0.33. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
32	5/26/2011	19	4	RTUC	RTUC failed due to deployment of patch 5.6.0.33. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
33	5/26/2011	20	1	RTUC	Broadcast of RTUC results failed. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
34	5/26/2011	23	10	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
35	5/26/2011	23	11	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
36	5/26/2011	23	12	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
37	5/26/2011	24	1	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
38	5/26/2011	24	12	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
39	5/27/2011	1	1	RTD	RTD failed. Loss clearing payload and LMP filled from next good interval.
40	5/27/2011	1	1	RTUC	RTUC did not run. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
41	5/27/2011	1	2	RTD	RTD failed. Loss clearing payload and LMP filled from next good interval.
42	5/27/2011	1	3	RTD	RTD failed. Loss clearing payload and LMP filled from next 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
43	5/28/2011	15	9	RTD	RTD failed due to forecast bias. Loss clearing payload and LMP filled from last good interval.
44	5/28/2011	18	4	RTD	RTD failed due to operator aborted run. Loss clearing payload and LMP filled from last good interval.
45	5/28/2011	18	6	RTD	RTD failed due to operator aborted run. Loss clearing payload and LMP filled from last good interval.
46	5/29/2011	13	9	RTD	RTD failed due to operator aborted run. Loss clearing payload and LMP filled from last good interval.
47	5/31/2011	1	9	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
48	5/31/2011	11	3	RTUC	RTUC did not run due to SIBR issue. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
49	5/31/2011	11	6	RTD	RTD failed due to operator aborted run. Loss clearing payload and LMP filled from last good interval.
50	5/31/2011	21	6	RTD	RTD failed due to operator aborted run. Loss clearing payload and LMP filled from last good interval.
51	6/1/2011	8	2	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
52	6/1/2011	10	3	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
53	6/1/2011	10	6	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
54	6/1/2011	10	7	RTD	RTD failed. Loss clearing payload and LMP filled from last 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
55	6/1/2011	10	8	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
56	6/1/2011	10	9	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
57	6/1/2011	19	6	RTD	RTD did not run due to planned outage. Loss clearing payload and LMP filled from last good interval.
58	6/1/2011	19	7	RTD	RTD did not run due to planned outage. Loss clearing payload and LMP filled from last good interval.
59	6/1/2011	19	8	RTD	RTD did not run due to planned outage. Loss clearing payload and LMP filled from last good interval.
60	6/1/2011	19	9	RTD	RTD did not run due to planned outage. Loss clearing payload and LMP filled from last good interval.
61	6/1/2011	19	12	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
62	6/2/2011	13	3	RTUC	RTUC failed due to database issues. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
63	6/2/2011	13	4	RTUC	RTUC failed due to database issues. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
64	6/2/2011	13	6	RTD	Broadcast of RTD results failed due to database issues. Loss clearing payload and LMP filled from last good interval.
65	6/2/2011	13	7	RTD	RTD failed due to database issues. Loss clearing payload and LMP filled from last good interval.
66	6/2/2011	13	8	RTD	RTD failed due to database issues. Loss clearing payload and LMP filled from last 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
67	6/4/2011	21	6	RTD	Broadcast of RTD results failed. Loss clearing payload and LMP filled from last good interval.
68	6/5/2011	15	6	RTD	Broadcast of RTD results failed. Loss clearing payload and LMP filled from last good interval.
69	6/5/2011	15	7	RTD	Broadcast of RTD results failed. Loss clearing payload and LMP filled from last good interval.
70	6/5/2011	15	10	RTD	Broadcast of RTD results failed. Loss clearing payload and LMP filled from last good interval.
71	6/6/2011	14	2	HASP	HASP failed due to DSTUC deployment. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
72	6/6/2011	14	3	RTUC	RTUC did not run due to DSTUC deployment. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
73	6/6/2011	14	5	RTD	RTD did not run due to DSTUC installation. Loss clearing payload and LMP filled from last good interval.
74	6/6/2011	17	2	RTD	RTD failed due to ramp rate infeasibility. Loss clearing payload and LMP filled from last good interval.
75	6/6/2011	18	2	HASP	HASP failed due to issue with trigger. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
76	6/6/2011	18	3	RTUC	RTUC failed due to issue with HASP run. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
77	6/6/2011	19	1	RTUC	Broadcast of RTUC results failed. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
78	6/8/2011	24	2	HASP	HASP failed due to MPM. 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
79	6/8/2011	24	3	RTUC	RTUC did not run. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
80	6/8/2011	24	4	RTUC	RTUC did not run. This interval was filled either automatically or interactively. MQS published PNode clearing and resource awards for this interval.
81	6/8/2011	24	11	RTD	RTD did not run. Loss clearing payload and LMP filled from last good interval.
82	6/8/2011	24	12	RTD	RTD did not run. Loss clearing payload and LMP filled from last good interval.
83	6/9/2011	1	1	RTD	RTD did not run due to DB53 promotion tasks. Loss clearing payload and LMP filled from next good interval.
84	6/9/2011	1	2	RTD	RTD did not run due to DB53 promotion tasks. Loss clearing payload and LMP filled from next good interval.
85	6/9/2011	7	8	RTD	RTD failed due to infeasible solution. Loss clearing payload and LMP filled from last good interval.
86	6/9/2011	12	10	RTD	RTD failed. Loss clearing payload and LMP filled from last good interval.
87	6/9/2011	23	4	RTD	RTD failed due to infeasible solution. Loss clearing payload and LMP filled from last good interval.
88	6/11/2011	22	10	RTD	Broadcast of RTD results failed. Loss clearing payload and LMP filled from last good interval.
89	6/12/2011	1	7	RTD	RTD failed due to infeasible solution. Loss clearing payload and LMP filled from last good interval.
90	6/14/2011	9	8	RTD	RTD failed due to wind deviation. Loss clearing payload and LMP filled from last 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
91	6/14/2011	9	11	RTD	RTD failed due to wind deviation. Loss clearing payload and LMP filled from last good interval.
92	6/14/2011	12	10	RTD	RTD failed due to infeasible solution. Loss clearing payload and LMP filled from last good interval.
93	6/14/2011	14	5	RTD	Broadcast of RTD results failed. Loss clearing payload and LMP filled from last good interval.
94	6/15/2011	1	1	RTD	RTD failed due to infeasible solution. Loss clearing payload and LMP filled from next good interval.
95	6/15/2011	1	2	RTD	RTD failed due to infeasible solution. Loss clearing payload and LMP filled from next 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 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.					
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.					
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.					

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.

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 15th day of July, 2011.

Susan L. Montana
Susan L. Montana