



California Independent  
System Operator Corporation

January 13, 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. ER08-1178-\_\_\_ and EL08-88-\_\_\_  
November 2011 Exceptional Dispatch Report (Chart 1 data)**

Dear Secretary Bose:

Pursuant to the Commission's September 2, 2009 and May 4, 2010 orders in the above referenced dockets, the California Independent System Operator Corporation submits the attached report. The attached report provides details concerning Exceptional Dispatches the Commission directed to be included in "Chart 1" as set forth in Appendix A of the September 2 order, as modified by the ISO's September 14 motion for clarification, which the Commission granted in its May 4 order. The attached report provides Chart 1 data for the month of November 2011.

Respectfully submitted,

**By: /s/ Sidney M. Davies**

Nancy Saracino  
General Counsel  
Sidney M. Davies  
Assistant General Counsel  
California Independent System  
Operator Corporation  
250 Outcropping Way  
Folsom, CA 95630  
Tel: (916) 608-7144  
Fax: (916)608-7222  
[sdavies@caiso.com](mailto:sdavies@caiso.com)



**California ISO**  
Shaping a Renewed Future

# **Exceptional Dispatch Report**

## **Table 1: November 2011**

## TABLE OF CONTENTS

Introduction .....	3
The Nature of Exceptional Dispatch.....	3
Appendix A: Explanation by Example .....	12
Appendix A: Explanation by Example .....	12
Example 1: Exceptional Dispatch Instructions Prior to DAM .....	12
Example 2: Incremental Exceptional Dispatch Instructions in RTM.....	13
Example 3: Decremental Exceptional Dispatch Instructions in RTM.....	15

## LIST OF TABLES AND FIGURES

Table 1: Exceptional Dispatches in November 2011.....	6
Table 2: Instructions Prior to Day-Ahead Market .....	12
Table 3: FERC Summary of Instructions Prior to DAM .....	13
Table 4: Incremental Exceptional Dispatch Instructions in RTM .....	13
Table 5: FERC Summary of ED Instructions in RTM .....	14
Table 6: Decremental Exceptional Dispatch Instructions in RTM .....	15
Table 7: FERC Summary of Decremental ED Instructions in RTM.....	15

## Introduction

This report is filed pursuant to FERC’s September 2, 2009 and May 4, 2010 orders in ER08-1178. These orders require two monthly Exceptional Dispatch reports—one issued on the 15<sup>th</sup> of each month and one issued on the 30<sup>th</sup> of each month. This report provides data on the frequency and reasons for Exceptional Dispatches issued in November 2011.

## The Nature of Exceptional Dispatch

The ISO can issue exceptional dispatch instructions for a resource as a pre-day-ahead unit commitment, a post-day-ahead unit commitment, or a real-time exceptional dispatch<sup>1</sup>. A pre-day-ahead commitment is an exceptional dispatch instruction that commits a resource at or above its physical minimum operating level in the day-ahead market. A post-day-ahead market commitment is an exceptional dispatch instruction that commits a resource at or above its physical minimum operating level in the real-time market. A real-time exceptional dispatch instruction is a dispatch of a resource at or above its physical minimum operating point. For the purposes of this report, a real-time exceptional dispatch above the resource day-ahead award is considered an incremental exceptional dispatch instruction and an exceptional dispatch below the day-ahead award is considered a decremental dispatch instruction.

The ISO issues exceptional dispatch instructions primarily for constraints which are not enforced or not completely enforced in the market software. Whenever the ISO issues an exceptional dispatch instruction, such instructions are logged into the scheduling and logging system (“SLIC”), including the associated reason. These reasons are associated with the constraints that are not currently incorporated into the market application. In addition to model constraints, the ISO also issues exceptional dispatch instructions for software failures.

Many of the exceptional dispatches listed below in Table 1, were to satisfy either a local area or system reliability requirements, and are classified into local generation requirements, transmission management requirements, non-modeled transmission outages or other requirements, such as ramp requirements and inertia emergency assistance. All reason codes starting with “G” refer to an ISO operating procedure for generation requirements and reason codes starting with “T” refer to an ISO operating procedure for transmission facilities. Most of the generation procedures are internal to the ISO and not available on the ISO website. All of the transmission procedures are available on the CAISO website<sup>2</sup>.

---

<sup>1</sup> The ISO can issue exceptional dispatch instruction subject to authority of the ISO Tariff Section 34.9 and in accordance with ISO Operating Procedure 2330 (formerly M-402).

<sup>2</sup> A list of all of the ISO’s publicly available Operating Procedures are available at the following link: <http://www.caiso.com/thegrid/operations/opsdoc/index.html>

In November 2011, the ISO issued exceptional dispatches for the following local area generation requirements: (1) G-206, San Diego area generation requirements; and (2) G-219, SCE area generation requirements. Exceptional dispatch instructions were also issued for the following transmission management requirements: (1) T-132, transmission facilities in San Diego and Imperial Valley area; and (2) other transmission outages in PG&E, SCE and SDG&E area.

The following additional reasons for exceptional dispatch instructions in November 2011 were not related to specific generation or transmission operating procedures: (1) Software Limitation, when an exceptional dispatch instruction was used to bridge schedules across days for resources with a minimum down time of 24 hours, as the ISO software does not handle multi day commitment. For instance, a resource has a day-ahead schedule from 0600 till 2300, and then is shut down in 2400. If this resource had a minimum down time of 24 hours and it is required the following day, then the ISO issues an exceptional dispatch to commit this resource in 2400 so that it can be dispatched economically in the following day. Software limitation reason was also used for exceptional dispatches to manually issue shut down instructions to a resource because of a temporary Automatic Dispatch System (“ADS”) failure, or similar issues.; (2) Market Disruption, when the exceptional dispatch instructions were issued due to HASP failures; and (3) Ramp Rate, when exceptional dispatch instructions were issued to dispatch a resource above its physical minimum to a level where the resource has significantly higher ramp rate capability. For example, a resource could have a ramp rate of 2 MW/min at its physical minimum of 100 MW, but a significantly higher ramp rate of 10 MW/min at 250 MW. The operators could issue an exceptional dispatch for this resource to be dispatched to 250 MW, so that the resource could respond to the anticipated steep load ramp or to a potential contingency. There were a few other reasons used to explain exceptional dispatch instructions in November, which are self explanatory.

As mentioned earlier, the data shown in Table 1 is based on a template specified in the September 2009 order<sup>3</sup>. Each entry in Attachment A is a summary of exceptional dispatches classified by (1) the reason for the exceptional dispatch; (2) the location of the resource by Participating Transmission Owner (“PTO”) service area; (3) the Local Reliability Area (“LRA”) where applicable; (4) the market in which the exceptional dispatch occurred (day-ahead vs. real-time); and (5) the date of the exceptional dispatch. For each classification the following

---

<sup>3</sup> The data in Table 1 is principally SLIC information supplemented with data from the Market Quality System (MQS). It is the most accurate currently available and it is worth noting that this data has been through the T+38B initial statement process wherein many unresolved issues are fixed. The CAISO believes that this data will correlate well with the settlements data that will be available when the CAISO files the Table 2 report for the reporting period.

information is provided: (1) Megawatts (MW); (2) Commitment (3) Inc or Dec (4) Hours; (5) Begin Time; and (6) End Time.

The MW column shows the range of exceptional dispatch instructions in MW for the classification. The Commitment column specifies if there was a unit commitment for the classification. The INC/DEC/NA column specifies if there was an incremental dispatch, a decremental dispatch, or only a unit commitment. If the exceptional dispatch was only a unit commitment, the column shows NA for the classification. The Begin Time column shows the start of exceptional dispatch for the classification and the End Time column shows the end of exceptional dispatch for the classification. The column Hours is the difference between end time and begin time rounded up to the next hour. The data shown is further explained by way of example in Attachment A.

Table 1 indicates that there were a total of 160 exceptional dispatches in November 2011, decreasing by 117 as compared to the December 15, 2011 report for October 2011. There was one exceptional dispatch in the day-ahead market. Exceptional dispatches issued for the following reasons accounted for 65 percent of the total exceptional dispatches during the reporting period: Software Limitation, Transmission Outage PG&E, Ramp Rate, and System Energy.

**Table 1: Exceptional Dispatches in November 2011**

California Independent System Operator Corporation Exceptional Dispatch Report January 13, 2012											
Chart 1: Table of Exceptional Dispatches for Period 01/November/2011 – 30/November/2011											
Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
1	DA	SDG&E Gas Limitation	SDG&E	San Diego	19-Nov-11	20	Yes	N/A	18	6:00	23:00
2	RT	Bridging Schedules	SDG&E	San Diego	18-Nov-11	20- 40	Yes	INC	17	7:00	23:59
3	RT	COI Mitigation	N/A	N/A	22-Nov-11	100	No	DEC	2	17:20	18:29
4	RT	G-206	N/A	N/A	19-Nov-11	20	Yes	INC	6	0:00	5:59
5	RT	G-206	SDG&E	San Diego	8-Nov-11	3	Yes	DEC	13	8:10	20:59
6	RT	G-206	SDG&E	San Diego	8-Nov-11	45	Yes	INC	13	8:10	20:59
7	RT	G-206	SDG&E	San Diego	9-Nov-11	45- 90	Yes	INC	9	8:35	16:59
8	RT	G-206	SDG&E	San Diego	18-Nov-11	180- 260	Yes	INC	3	8:35	10:49
9	RT	G-206	SDG&E	San Diego	27-Nov-11	320- 660	Yes	INC	13	10:30	22:59
10	RT	G-206	SDG&E	San Diego	28-Nov-11	40	Yes	INC	3	9:00	11:59
11	RT	G-219	SCE	LA Basin	3-Nov-11	92- 94	Yes	INC	7	14:03	20:59
12	RT	G-219	SCE	LA Basin	8-Nov-11	20- 247	Yes	INC	18	6:00	23:59
13	RT	G-219	SCE	LA Basin	9-Nov-11	48- 95	Yes	INC	8	10:52	17:59
14	RT	G-219	SCE	LA Basin	10-Nov-11	42- 97	No	DEC	6	14:50	19:59
15	RT	G-219	SCE	LA Basin	10-Nov-11	0	No	INC	6	14:50	19:59
16	RT	G-219	SCE	LA Basin	23-Nov-11	20	Yes	INC	22	2:00	23:59
17	RT	G-219	SCE	LA Basin	28-Nov-11	20	Yes	INC	18	6:00	23:59
18	RT	G-219	SCE	LA Basin	29-Nov-11	20- 65	Yes	INC	23	1:00	23:59
19	RT	G-219	SCE	LA Basin	30-Nov-11	20	Yes	INC	24	0:00	23:59
20	RT	Generation Outage	PG&E	Sierra	5-Nov-11	6- 10	Yes	INC	1	9:35	9:59
21	RT	Infeasible Day Ahead Schedule	N/A	N/A	15-Nov-11	20	Yes	INC	1	1:00	1:59

Department of Market Analysis and Development– California ISO

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
22	RT	Infeasible Day Ahead Schedule	SCE	LA Basin	6-Nov-11	0	No	INC	1	23:00	23:58
23	RT	Intertie Emergency Assistance	N/A	N/A	2-Nov-11	80	Yes	INC	1	23:30	23:59
24	RT	Intertie Emergency Assistance	N/A	N/A	3-Nov-11	80	No	INC	1	5:39	5:59
25	RT	Intertie Emergency Assistance	N/A	N/A	6-Nov-11	100	No	INC	1	15:20	15:59
26	RT	Market Disruption	N/A	N/A	13-Nov-11	301- 400	Yes	INC	4	18:00	21:59
27	RT	Market Disruption	N/A	N/A	18-Nov-11	825	Yes	INC	1	11:00	11:59
28	RT	Missing Bids	N/A	N/A	3-Nov-11	195	Yes	DEC	6	12:00	17:59
29	RT	Missing Bids	N/A	N/A	8-Nov-11	11	No	DEC	2	14:00	15:59
30	RT	Missing Bids	N/A	N/A	12-Nov-11	200	No	DEC	1	6:00	6:59
31	RT	Missing Bids	N/A	N/A	16-Nov-11	0	No	INC	3	1:00	3:59
32	RT	Missing Bids	N/A	N/A	25-Nov-11	0	No	INC	3	0:00	2:59
33	RT	Missing Bids	N/A	N/A	26-Nov-11	105	No	DEC	3	0:00	2:59
34	RT	Missing Bids	N/A	N/A	26-Nov-11	0	No	INC	3	0:00	2:59
35	RT	MSG Plant Startup	N/A	N/A	17-Nov-11	20	Yes	INC	5	14:10	18:59
36	RT	Path 43	PG&E	Bay Area	21-Nov-11	20	Yes	INC	2	7:47	8:59
37	RT	Path 43	PG&E	N/A	21-Nov-11	20	Yes	INC	2	7:47	8:59
38	RT	Path 66	N/A	N/A	22-Nov-11	100	No	DEC	2	16:55	17:29
39	RT	Peaker Management	SDG&E	San Diego	28-Nov-11	17- 40	Yes	INC	6	13:50	18:59
40	RT	Ramp Rate	N/A	N/A	4-Nov-11	190	Yes	INC	2	15:55	16:59
41	RT	Ramp Rate	N/A	N/A	18-Nov-11	44- 106	Yes	DEC	14	7:20	20:59
42	RT	Ramp Rate	N/A	N/A	18-Nov-11	1- 286	Yes	INC	14	7:15	20:59
43	RT	Ramp Rate	N/A	N/A	19-Nov-11	38- 240	No	DEC	9	10:35	18:59
44	RT	Ramp Rate	N/A	N/A	19-Nov-11	69	Yes	INC	15	6:50	20:59
45	RT	Ramp Rate	N/A	N/A	20-Nov-11	64	Yes	INC	12	9:00	20:59
46	RT	Ramp Rate	PG&E	Bay Area	15-Nov-11	62	Yes	INC	6	15:30	20:59
47	RT	Ramp Rate	PG&E	N/A	4-Nov-11	190	No	INC	4	16:55	19:59
48	RT	Ramp Rate	PG&E	N/A	5-Nov-11	400	No	INC	11	9:50	19:59
49	RT	Ramp Rate	PG&E	N/A	6-Nov-11	190- 400	No	INC	11	8:55	18:59
50	RT	Ramp Rate	SCE	Big Creek-	2-Nov-11	50	Yes	INC	6	16:20	21:59

Department of Market Analysis and Development– California ISO

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
				Ventura							
51	RT	Ramp Rate	SCE	Big Creek-Ventura	16-Nov-11	50	Yes	INC	7	14:47	20:59
52	RT	Ramp Rate	SCE	LA Basin	5-Nov-11	190	Yes	INC	11	9:45	19:59
53	RT	Ramp Rate	SCE	LA Basin	7-Nov-11	48- 152	No	DEC	5	16:25	20:59
54	RT	Ramp Rate	SCE	LA Basin	7-Nov-11	30	No	INC	2	16:00	17:59
55	RT	Ramp Rate	SCE	LA Basin	9-Nov-11	184	No	INC	8	12:00	19:59
56	RT	Ramp Rate	SCE	LA Basin	15-Nov-11	14- 95	No	DEC	6	15:30	20:59
57	RT	Ramp Rate	SCE	LA Basin	15-Nov-11	67	Yes	INC	6	15:30	20:59
58	RT	Ramp Rate	SCE	LA Basin	17-Nov-11	97	No	DEC	4	15:30	18:59
59	RT	Ramp Rate	SCE	LA Basin	17-Nov-11	45	No	INC	4	15:30	18:59
60	RT	Ramp Rate	SCE	LA Basin	29-Nov-11	5- 96	No	DEC	4	15:30	18:59
61	RT	Ramp Rate	SCE	LA Basin	30-Nov-11	5- 115	No	DEC	10	11:45	20:59
62	RT	Ramp Rate	SDG&E	San Diego	11-Nov-11	281- 344	No	INC	7	15:35	21:59
63	RT	Ramp Rate	SDG&E	San Diego	30-Nov-11	63	No	INC	10	11:45	20:59
64	RT	Software Limitation	N/A	N/A	12-Nov-11	145	Yes	INC	3	4:10	6:59
65	RT	Software Limitation	N/A	N/A	22-Nov-11	0	Yes	INC	17	5:30	21:59
66	RT	Software Limitation	N/A	N/A	28-Nov-11	0	Yes	INC	2	21:15	22:14
67	RT	Software Limitation	PG&E	Bay Area	2-Nov-11	0	No	INC	10	9:00	18:59
68	RT	Software Limitation	PG&E	Bay Area	3-Nov-11	45	Yes	INC	2	0:00	1:59
69	RT	Software Limitation	PG&E	Fresno	1-Nov-11	299	No	DEC	1	4:32	4:46
70	RT	Software Limitation	PG&E	Fresno	1-Nov-11	83	No	INC	1	10:25	10:59
71	RT	Software Limitation	PG&E	Fresno	2-Nov-11	299	No	DEC	2	2:30	3:44
72	RT	Software Limitation	PG&E	Fresno	12-Nov-11	0	Yes	INC	2	9:48	10:47
73	RT	Software Limitation	PG&E	Fresno	17-Nov-11	0	No	INC	1	1:00	1:20
74	RT	Software Limitation	PG&E	Fresno	19-Nov-11	46	Yes	DEC	5	3:40	7:59
75	RT	Software Limitation	PG&E	Fresno	20-Nov-11	96	Yes	DEC	3	19:35	21:34
76	RT	Software Limitation	PG&E	Fresno	20-Nov-11	0	Yes	INC	3	19:35	21:34
77	RT	Software Limitation	PG&E	Fresno	27-Nov-11	46	Yes	INC	2	18:37	19:46

Department of Market Analysis and Development– California ISO

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
78	RT	Software Limitation	PG&E	Fresno	28-Nov-11	0	Yes	INC	3	19:05	21:04
79	RT	Software Limitation	PG&E	N/A	3-Nov-11	0	No	INC	12	0:15	11:14
80	RT	Software Limitation	PG&E	N/A	10-Nov-11	164	Yes	INC	18	6:00	23:58
81	RT	Software Limitation	PG&E	N/A	11-Nov-11	164	No	INC	4	0:00	3:59
82	RT	Software Limitation	SCE	LA Basin	2-Nov-11	0	Yes	INC	1	23:20	23:59
83	RT	Software Limitation	SCE	LA Basin	3-Nov-11	0	Yes	INC	24	0:00	23:09
84	RT	Software Limitation	SCE	LA Basin	5-Nov-11	0	Yes	INC	1	7:00	7:29
85	RT	Software Limitation	SCE	LA Basin	6-Nov-11	20	No	INC	1	23:00	23:58
86	RT	Software Limitation	SCE	LA Basin	7-Nov-11	200	Yes	INC	2	1:35	2:19
87	RT	Software Limitation	SCE	LA Basin	8-Nov-11	0	Yes	INC	2	20:30	21:39
88	RT	Software Limitation	SCE	LA Basin	9-Nov-11	47	Yes	INC	11	11:00	21:14
89	RT	Software Limitation	SCE	LA Basin	11-Nov-11	0	Yes	INC	2	19:10	20:09
90	RT	Software Limitation	SCE	LA Basin	18-Nov-11	45	No	DEC	2	20:50	21:49
91	RT	Software Limitation	SCE	LA Basin	27-Nov-11	0	Yes	INC	3	20:30	22:59
92	RT	Software Limitation	SCE	LA Basin	28-Nov-11	0	Yes	INC	11	12:05	22:39
93	RT	Software Limitation	SCE	LA Basin	29-Nov-11	0	Yes	INC	11	11:35	21:14
94	RT	Software Limitation	SCE	LA Basin	30-Nov-11	67	Yes	INC	5	16:00	20:59
95	RT	Software Limitation	SDG&E	N/A	3-Nov-11	505	No	INC	5	13:00	17:54
96	RT	Software Limitation	SDG&E	San Diego	7-Nov-11	0	Yes	INC	2	12:05	13:04
97	RT	Software Limitation	SDG&E	San Diego	8-Nov-11	0	Yes	INC	1	22:05	22:34
98	RT	Software Limitation	SDG&E	San Diego	9-Nov-11	155	Yes	INC	24	0:05	23:34
99	RT	Software Limitation	SDG&E	San Diego	11-Nov-11	0	Yes	INC	2	14:25	15:04
100	RT	Software Limitation	SDG&E	San Diego	26-Nov-11	250	No	INC	2	17:13	18:59
101	RT	Software Limitation	SDG&E	San Diego	30-Nov-11	522	Yes	INC	11	10:47	20:44
102	RT	SP26 Capacity	SCE	LA Basin	21-Nov-11	20	Yes	INC	5	19:00	23:59
103	RT	SP26 Capacity	SDG&E	San Diego	8-Nov-11	20	No	INC	8	16:00	23:59
104	RT	Stranded AS	SCE	LA Basin	11-Nov-11	3- 97	No	DEC	14	8:45	21:59
105	RT	Stranded AS	SCE	LA Basin	11-Nov-11	0	No	INC	14	8:45	21:59
106	RT	Stranded AS	SCE	LA Basin	20-Nov-11	0	Yes	INC	2	21:00	22:04

Department of Market Analysis and Development– California ISO

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
107	RT	System Energy	N/A	N/A	2-Nov-11	475- 480	Yes	INC	2	17:00	18:59
108	RT	System Energy	N/A	N/A	5-Nov-11	900	Yes	INC	1	18:00	18:59
109	RT	System Energy	N/A	N/A	15-Nov-11	400	No	DEC	1	18:00	18:59
110	RT	System Energy	N/A	N/A	15-Nov-11	150	Yes	INC	1	18:00	18:59
111	RT	System Energy	N/A	N/A	16-Nov-11	390	Yes	INC	1	16:00	16:59
112	RT	System Energy	N/A	N/A	21-Nov-11	50- 600	Yes	INC	12	7:00	18:59
113	RT	System Energy	N/A	N/A	25-Nov-11	200- 400	Yes	INC	5	2:00	6:59
114	RT	System Energy	N/A	N/A	27-Nov-11	200- 850	Yes	INC	2	16:00	17:59
115	RT	System Energy	N/A	N/A	28-Nov-11	450	Yes	INC	1	16:00	16:59
116	RT	System Energy	N/A	N/A	29-Nov-11	635	Yes	INC	1	16:00	16:59
117	RT	System Energy	N/A	N/A	30-Nov-11	525	Yes	INC	1	6:00	6:59
118	RT	System Reliability	SDG&E	San Diego	24-Nov-11	20- 40	Yes	INC	9	14:00	22:59
119	RT	T-132	SDG&E	N/A	16-Nov-11	450	No	INC	1	9:10	9:39
120	RT	Thermal Margin	PG&E	N/A	6-Nov-11	52	No	INC	22	2:00	23:59
121	RT	Transmission Outage PG&E	N/A	N/A	2-Nov-11	32	Yes	INC	3	21:00	23:59
122	RT	Transmission Outage PG&E	N/A	N/A	3-Nov-11	16- 84	Yes	INC	24	0:00	23:59
123	RT	Transmission Outage PG&E	N/A	N/A	4-Nov-11	32- 100	Yes	INC	24	0:00	23:59
124	RT	Transmission Outage PG&E	N/A	N/A	7-Nov-11	5	Yes	DEC	2	17:50	18:59
125	RT	Transmission Outage PG&E	N/A	N/A	7-Nov-11	44	Yes	INC	2	17:50	18:59
126	RT	Transmission Outage PG&E	N/A	N/A	8-Nov-11	1	Yes	DEC	12	9:15	20:59
127	RT	Transmission Outage PG&E	N/A	N/A	8-Nov-11	32- 70	Yes	INC	13	8:00	20:59
128	RT	Transmission Outage PG&E	PG&E	Bay Area	2-Nov-11	40	Yes	INC	13	9:15	21:59
129	RT	Transmission Outage PG&E	PG&E	Bay Area	5-Nov-11	20	Yes	INC	17	6:06	22:59
130	RT	Transmission Outage PG&E	PG&E	Bay Area	17-Nov-11	20- 50	Yes	INC	7	11:47	17:04
131	RT	Transmission Outage PG&E	PG&E	Humboldt	1-Nov-11	29	No	INC	9	15:54	23:59
132	RT	Transmission Outage PG&E	PG&E	Humboldt	2-Nov-11	16- 32	No	INC	21	0:00	20:59
133	RT	Transmission Outage PG&E	PG&E	Humboldt	3-Nov-11	32	No	INC	14	8:48	21:59
134	RT	Transmission Outage PG&E	PG&E	Humboldt	4-Nov-11	16	No	INC	2	6:32	7:29
135	RT	Transmission Outage PG&E	PG&E	Humboldt	5-Nov-11	32- 64	No	INC	24	0:00	23:59

Department of Market Analysis and Development– California ISO

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
136	RT	Transmission Outage PG&E	PG&E	Humboldt	6-Nov-11	32- 48	No	INC	1	23:00	23:59
137	RT	Transmission Outage PG&E	PG&E	Humboldt	7-Nov-11	15- 32	No	INC	23	0:00	22:59
138	RT	Transmission Outage PG&E	PG&E	Humboldt	8-Nov-11	15- 32	No	INC	18	6:35	23:59
139	RT	Transmission Outage PG&E	PG&E	Humboldt	28-Nov-11	32- 96	No	INC	17	7:08	23:59
140	RT	Transmission Outage PG&E	PG&E	Humboldt	29-Nov-11	16- 32	No	INC	24	0:00	23:59
141	RT	Transmission Outage PG&E	PG&E	Humboldt	30-Nov-11	16- 87	No	INC	24	0:00	23:58
142	RT	Transmission Outage PG&E	PG&E	N/A	2-Nov-11	39	Yes	INC	13	9:20	21:59
143	RT	Transmission Outage PG&E	PG&E	N/A	4-Nov-11	52	No	INC	8	16:55	23:59
144	RT	Transmission Outage PG&E	PG&E	N/A	5-Nov-11	52	No	INC	24	0:00	23:59
145	RT	Transmission Outage PG&E	PG&E	Sierra	2-Nov-11	5	Yes	DEC	6	9:25	14:22
146	RT	Transmission Outage PG&E	PG&E	Sierra	2-Nov-11	5	Yes	INC	9	6:38	14:22
147	RT	Transmission Outage PG&E	PG&E	Sierra	4-Nov-11	5- 8	Yes	INC	5	7:40	11:59
148	RT	Transmission Outage PG&E	PG&E	Sierra	5-Nov-11	5- 10	Yes	INC	3	7:31	9:34
149	RT	Transmission Outage PG&E	PG&E	Sierra	7-Nov-11	35- 45	Yes	INC	3	4:25	6:59
150	RT	Transmission Outage PG&E	PG&E	Sierra	15-Nov-11	11- 41	No	DEC	14	8:56	21:59
151	RT	Transmission Outage PG&E	PG&E	Sierra	15-Nov-11	72	Yes	INC	12	10:00	21:59
152	RT	Transmission Outage SCE	SCE	LA Basin	1-Nov-11	20	No	INC	17	7:00	23:59
153	RT	Transmission Outage SCE	SCE	LA Basin	2-Nov-11	20	Yes	INC	24	0:00	23:59
154	RT	Transmission Outage SCE	SCE	LA Basin	4-Nov-11	190	No	INC	6	15:00	20:59
155	RT	Transmission Outage SDG&E	SDG&E	San Diego	7-Nov-11	85- 90	No	INC	2	11:05	12:59
156	RT	Transmission Outage SDG&E	SDG&E	San Diego	30-Nov-11	20- 420	Yes	INC	23	1:45	23:59
157	RT	Unit Testing	PG&E	Bay Area	9-Nov-11	129	No	DEC	1	10:42	10:48
158	RT	Unit Testing	PG&E	N/A	4-Nov-11	400	No	INC	3	10:20	12:39
159	RT	Unit Testing	SCE	Big Creek-Ventura	10-Nov-11	363	No	INC	1	15:05	15:14
160	RT	Unit Testing	SCE	LA Basin	1-Nov-11	25	No	INC	3	21:10	23:59

## Appendix A: Explanation by Example

All examples listed below are based on fictitious data.

### Example 1: Exceptional Dispatch Instructions Prior to DAM

In this fictitious example the ISO issued an exceptional dispatch instruction for resource A to be committed at its physical minimum (Pmin) of 50 MW from hours ending 5 through 10 for a generation procedure G-219. Similarly, the ISO issued additional instructions to resources B and C for the same reason as shown in Table 2. Generally, exceptional dispatches prior to the day-ahead market are commitments to minimum load. In this case the dispatch levels are all at minimum load.

**Table 2: Instructions Prior to Day-Ahead Market**

Date	Market	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch Level (MW)	Reason
01-Jul-09	DA	A	SCE	LA BASIN	05:00	10:00	50	G-219
01-Jul-09	DA	B	SCE	LA BASIN	08:00	20:00	30	G-219
01-Jul-09	DA	C	SCE	LA BASIN	09:00	23:00	20	G-219.

This data is summarized as shown in Table 3, which is the prescribed format specified in the FERC order on September 02, 2009. This summary classifies the data by reason, resource location, local reliability area, and trade date. The MW column in Table 3 is the range of MW; in this case the minimum instruction MW is 20 MW for resource C which occurs from hours ending 21 through 23. The maximum instruction occurs in hour ending 10. In this hour resource A is committed at 50 MW, resource B is committed at 30 MW and resource C is committed at 20 MW. This adds up to 100 MW. Thus the MW column shows the minimum and maximum of the overlaps of all the exceptional dispatch instructions. The Commitment column shows whether a resource was committed between the begin time and end time. Commitments are broken out separately from energy dispatches. In the day-ahead, however the exceptional dispatches are nearly always just commitments, as in this example. The Begin Time column shows hour ending 5 as this was the hour ending for first dispatch of the day, and the End Time column shows hour ending 23, as this was the hour with last dispatch. It is also possible that there might be some hours between the begin time and the end time where there might not be exceptional dispatch instructions for the given reason, meaning that the range between the begin time and end time can include null hours with no dispatch.

**Table 3: FERC Summary of Instructions Prior to DAM**

Number	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time
1	DA	G-219	SCE	LA Basin	1-Jul-09	20-100	Yes	N/A	19	05:00	23:00

**Example 2: Incremental Exceptional Dispatch Instructions in RTM**

In this fictitious example the ISO issued an exceptional dispatch instruction to resource A to be committed at its Pmin of 30 MW from hours ending 7 through 11 after completion of the day-ahead market for the transmission procedure T-138. This resource did not have a day-ahead award in those hours. The ISO issued another exceptional dispatch instruction to resource B, to be dispatched at 40 MW from hours ending 8 through 9 in real-time for the transmission procedure T-138. This resource had a day-ahead schedule of 20 MW from the day-ahead market, which implies that this exceptional dispatch instruction was an incremental instruction and the exceptional dispatch MW was 20 MW. Similarly, the details of exceptional dispatch (ED) instruction for resource C are shown in Table 4.

**Table 4: Incremental Exceptional Dispatch Instructions in RTM**

Date	Market	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch Level (MW)	Day-Ahead Award (MW)	Commitment	INC/DEC	ED (MW)	Reason
01-Jul-09	RT	A	PG&E	Humboldt	06:00	11:00	30	0	Yes	INC	30	T-138
01-Jul-09	RT	B	PG&E	Humboldt	07:00	09:00	40	20	No	INC	20	T-138
01-Jul-09	RT	C	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	T-138
01-Jul-09	RT	C	PG&E	Humboldt	16:00	20:00	50	40	No	INC	10	T-138

This data is summarized as shown in Table 5 and is classified by reason, resource location, local reliability area, and trade date. The MW column in Table 5 is the range of MW; in this case the minimum instruction MW is 0 MW for resource C which occurs from hours ending 13 through 15. The maximum instruction occurs in hours ending 8 & 9, as during these two hours both resources A and B have an ED MW of 30MW and 20MW, respectively. This adds up to 50 MW. Thus the MW column shows the minimum and maximum of the overlaps of all the exceptional dispatch instructions. The Commitment column shows whether a resource was committed between the begin time and end time. This column shows a commitment if there was a single commitment in the entire interval of exceptional dispatch. The Begin Time column shows the time of the first dispatch of the day. This is a time not a range. Similarly the End Time column shows a time and not a range. Exceptional dispatches occurred between these two times. Since there was a commitment between the begin time and end time then the Commitment column displays yes for the summary. Similarly, the INC/DEC column shows an INC as there was an incremental dispatch between the begin time and end time. As mentioned in the previous example it is possible that there might be some hours between the begin time and end time where there were no exceptional dispatch instructions for the given reason.

**Table 5: FERC Summary of ED Instructions in RTM**

Number	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time
1	RT	T-138	PG&E	Humboldt	1-Jul-09	0-50	Yes	INC	15	06:00	20:00

**Example 3: Decremental Exceptional Dispatch Instructions in RTM**

This example highlights decremental exceptional dispatch instructions in the real-time market. In this fictitious example the ISO issued an exceptional dispatch instruction to resource A to be committed at its Pmin of 20 MW from hours ending 15 through 20 after completion of the day-ahead market for the transmission procedure T-129. The ISO issued additional exceptional dispatch instructions for resources B and C; details of those instructions are shown in Table 6.

**Table 6: Decremental Exceptional Dispatch Instructions in RTM**

Date	Market Type	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch Level (MW)	Day-Ahead Award (MW)	Commitment	INC/DEC	ED (MW)	Reason
01-Jul-09	RT	A	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	T-129
01-Jul-09	RT	B	PG&E	Fresno	07:00	09:00	40	60	No	DEC	20	T-129
01-Jul-09	RT	C	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	T-129

This data is summarized according to FERC convention as shown in Table 7. This summary classifies the data by reason, resource location, local reliability area, and trade date. Please note that inc and dec are broken out separately. The inc entry is self-explanatory and similar to the previous example. Regarding the dec entry the MW column is the range of MW; in this case the minimum dec instruction is 10 MW (actually -10MW as it is a dec) for resource C which occurs from hours ending 10 through 14. The maximum instruction occurs from hours ending 7 through 9, when resource B was issued a dec instruction of 20 MW. Thus the MW column shows the minimum and maximum of the overlaps of all the exceptional dispatch instructions. The Commitment column shows whether a resource was committed between the begin time and end time.

**Table 7: FERC Summary of Decremental ED Instructions in RTM**

Number	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time
1	RT	T-129	PG&E	Fresno	1-Jul-09	20	Yes	INC	6	15:00	20:00
1	RT	T-129	PG&E	Fresno	1-Jul-09	10-20	Yes	DEC	8	07:00	14:00

## 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 13<sup>th</sup> day of January, 2012.

*/s/ Anna Pascuzzo*

Anna Pascuzzo