

August 15, 2013

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-\_\_\_\_ June 2013 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 June 2013.

Respectfully submitted,

By: /s/ Sidney M. Davies

Nancy Saracino
General Counsel
Roger Collanton
Deputy General Counsel
Sidney M. Davies
Assistant General Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel: (916) 608-7144

Tel: (916) 608-7144 Fax (916) 608-7222 sdavies@casio.com



# **Exceptional Dispatch Report**

**Table 1: June 2013** 

## TABLE OF CONTENTS

Introduction	3
The Nature of Exceptional Dispatch	
Appendix A: Explanation by Example	
Example 1: Exceptional Dispatch Instructions Prior to DAM	
Example 2: Incremental Exceptional Dispatch Instructions in RTM	16
Example 3: Decremental Exceptional Dispatch Instructions in RTM	
LIST OF TABLES AND FIGURES  Table 1: Exceptional Dispatches in June 2013	6
	6
Table 2: Instructions Prior to Day-Ahead Market	
Table 3: FERC Summary of Instructions Prior to DAM	
Table 4: Incremental Exceptional Dispatch Instructions in RTM	16
Table 5: FERC Summary of ED Instructions in RTM	17
Table 6: Decremental Exceptional Dispatch Instructions in RTM	18
Table 7: FERC Summary of Decremental ED Instructions in RTM	18

#### Introduction

This report is filed pursuant to FERC's September 2, 2009 and June 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 June 2013.

## The Nature of Exceptional Dispatch

The ISO can issue exceptional dispatch instructions for a resource as a pre-day-ahead unit commitment, which may also include an indicative exceptional dispatch energy schedule, 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 intertie emergency assistance. All of the transmission procedures are available on the CAISO website<sup>2</sup>.

In June 2013, the ISO issued exceptional dispatches for the following generation and transmission operating requirements: (1) 6110, COI operating procedure, (2)

-

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

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

7230, transmission facilities in Palermo – Rio Oso area (3) 7320, Bay Area Transmission Management (4) 7410, transmission facilities in Tesla/Bellota Area (5) 7430, transmission facilities in Fresno area (6) 7630, Orange County Area Requirements (7) 7830, Procedure for both SONGS Units Off-Line

The following additional reason for exceptional dispatch instructions in June 2013 was not related to specific generation or transmission operating procedures: 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. There were a few other reasons used to explain exceptional dispatch instructions in June, 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 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.

available when the CAISO files the Table 2 report for the reporting period.

\_

<sup>&</sup>lt;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

Table 1 indicates that there were a total of 203 exceptional dispatches in June 2013, decreasing by 10 as compared to the July 15, 2013 report for May 2013. Exceptional dispatches issued for the following reasons accounted for approximately 58 percent of the total exceptional dispatches during the reporting period: software limitation, unit testing, Load forecast uncertainty and 7430 transmission facilities in Fresno area.

**Table 1: Exceptional Dispatches in June 2013** 

## California Independent System Operator Corporation Exceptional Dispatch Report August 15, 2013

## Chart 1: Table of Exceptional Dispatches for Period 01/June/2013 – 31/June /2013

Num	Market			Local				INC_		Pogin	End
ber	Type	Reason	Location	Reliability Area	Trade Date	MW	Commitment	DEC_	Hours	Begin Time	Time
1	RT	6110	PG&E	Sierra	8-Jun-13	12	No	INC	2	16:49	17:27
2	RT	6110	PG&E	Sierra	29-Jun-13	25- 68	No	DEC	2	12:33	13:25
3	RT	6110	PG&E	Sierra	29-Jun-13	125	No	INC	2	12:48	13:25
4	RT	7230	PG&E	Sierra	2-Jun-13	20- 45	Yes	INC	7	16:28	22:29
5	RT	7230	PG&E	Sierra	8-Jun-13	4- 78	No	DEC	8	14:16	21:59
6	RT	7230	PG&E	Sierra	8-Jun-13	20	Yes	INC	2	12:52	13:38
7	RT	7230	PG&E	Sierra	9-Jun-13	42	Yes	INC	9	12:00	20:59
8	RT	7230	PG&E	Sierra	29-Jun-13	20	Yes	INC	1	22:34	22:59
9	RT	7230	PG&E	Sierra	30-Jun-13	1- 87	Yes	DEC	10	13:35	22:59
10	RT	7230	PG&E	Sierra	30-Jun-13	66	Yes	INC	12	12:45	23:54
11	RT	7320	PG&E	Bay Area	12-Jun-13	2	Yes	DEC	2	18:56	19:45
12	RT	7320	PG&E	Bay Area	12-Jun-13	20- 44	Yes	INC	3	18:56	20:14
13	RT	7320	PG&E	Bay Area	17-Jun-13	20	Yes	INC	12	11:35	22:59
14	RT	7320	PG&E	Bay Area	26-Jun-13	19- 37	No	INC	11	10:27	20:59
15	RT	7320	PG&E	Bay Area	27-Jun-13	20	No	INC	2	8:38	9:09
16	RT	7320	PG&E	Bay Area	28-Jun-13	58	No	DEC	13	8:50	20:59
17	RT	7320	PG&E	Bay Area	28-Jun-13	37	No	INC	13	8:50	20:59
18	RT	7320	PG&E	Sierra	29-Jun-13	6- 80	Yes	DEC	5	16:09	20:59
19	RT	7320	PG&E	Sierra	29-Jun-13	12	Yes	INC	5	16:45	20:59
20	RT	7410	PG&E	Stockton	30-Jun-13	25- 45	No	DEC	10	13:40	22:09
21	RT	7410	PG&E	Stockton	30-Jun-13	19- 39	No	INC	10	13:15	22:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
22	RT	7430	PG&E	Bay Area	11-Jun-13	200	No	INC	2	14:20	15:00
23	RT	7430	PG&E	Bay Area	27-Jun-13	20	No	INC	13	9:00	21:59
24	RT	7430	PG&E	Fresno	1-Jun-13	20- 50	No	INC	13	11:01	23:29
25	RT	7430	PG&E	Fresno	2-Jun-13	8- 160	Yes	DEC	8	13:50	20:59
26	RT	7430	PG&E	Fresno	2-Jun-13	20- 393	Yes	INC	17	7:09	23:29
27	RT	7430	PG&E	Fresno	3-Jun-13	260	Yes	INC	24	0:25	23:59
28	RT	7430	PG&E	Fresno	4-Jun-13	20- 143	Yes	INC	15	9:15	23:59
29	RT	7430	PG&E	Fresno	5-Jun-13	7- 51	Yes	DEC	4	16:23	19:59
30	RT	7430	PG&E	Fresno	5-Jun-13	20- 264	Yes	INC	16	8:00	23:54
31	RT	7430	PG&E	Fresno	8-Jun-13	25- 228	Yes	DEC	8	15:35	22:59
32	RT	7430	PG&E	Fresno	8-Jun-13	20- 220	Yes	INC	24	0:00	23:59
33	RT	7430	PG&E	Fresno	9-Jun-13	20- 103	Yes	INC	23	0:00	22:59
34	RT	7430	PG&E	Fresno	10-Jun-13	20	No	INC	11	12:55	22:59
35	RT	7430	PG&E	Fresno	11-Jun-13	10- 86	Yes	DEC	4	19:45	22:59
36	RT	7430	PG&E	Fresno	11-Jun-13	20- 230	Yes	INC	4	20:00	23:59
37	RT	7430	PG&E	Fresno	12-Jun-13	20- 231	Yes	INC	14	10:25	23:59
38	RT	7430	PG&E	Fresno	13-Jun-13	20	No	INC	14	9:00	22:59
39	RT	7430	PG&E	Fresno	14-Jun-13	20	Yes	INC	24	0:35	23:54
40	RT	7430	PG&E	Fresno	15-Jun-13	20	No	INC	13	11:04	23:59
41	RT	7430	PG&E	Fresno	16-Jun-13	20	No	INC	8	15:00	22:59
42	RT	7430	PG&E	Fresno	17-Jun-13	20- 51	No	INC	15	9:50	23:59
43	RT	7430	PG&E	Fresno	18-Jun-13	20- 51	No	INC	16	8:50	23:49
44	RT	7430	PG&E	Fresno	19-Jun-13	20	No	INC	8	16:45	23:29
45	RT	7430	PG&E	Fresno	20-Jun-13	20	No	INC	8	16:45	23:29
46	RT	7430	PG&E	Fresno	21-Jun-13	20- 50	No	INC	9	15:45	23:59
47	RT	7430	PG&E	Fresno	22-Jun-13	20- 50	No	INC	12	12:19	23:59
48	RT	7430	PG&E	Fresno	23-Jun-13	20	No	INC	1	0:00	0:59
49	RT	7430	PG&E	Fresno	26-Jun-13	170	Yes	INC	1	14:37	14:59
50	RT	7430	PG&E	Fresno	28-Jun-13	160	Yes	INC	21	2:00	22:59

Num	Market			Local Reliability				INC		Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	Commitment	DEC	Hours	Time	Time
51	RT	7430	PG&E	Fresno	29-Jun-13	57- 127	Yes	DEC	1	22:00	22:59
52	RT	7430	PG&E	Fresno	29-Jun-13	83- 361	Yes	INC	17	7:30	23:14
53	RT	7430	PG&E	Fresno	30-Jun-13	10- 90	Yes	DEC	5	19:57	23:19
54	RT	7430	PG&E	Fresno	30-Jun-13	83- 325	Yes	INC	23	1:10	23:58
55	RT	7430	PG&E	Stockton	29-Jun-13	10	No	INC	2	19:28	20:36
56	RT	7630	SCE	Big Creek- Ventura	29-Jun-13	2	No	DEC	5	16:45	20:59
57	RT	7630	SCE	Big Creek- Ventura	29-Jun-13	53	No	INC	9	12:15	20:59
58	RT	7830	PG&E	Fresno	6-Jun-13	20- 40	No	INC	16	8:25	23:59
59	RT	7830	PG&E	Fresno	7-Jun-13	20- 51	No	INC	24	0:00	23:59
60	RT	7830	PG&E	Fresno	8-Jun-13	20	No	INC	9	1:30	9:19
61	RT	Bridging Schedules	PG&E	Bay Area	29-Jun-13	45	Yes	INC	5	19:00	23:59
62	RT	Bridging Schedules	PG&E	Bay Area	30-Jun-13	45	Yes	INC	24	0:00	23:59
63	RT	Bridging Schedules	PG&E	N/A	6-Jun-13	52	No	INC	4	20:00	23:59
64	RT	Bridging Schedules	PG&E	N/A	13-Jun-13	140	Yes	INC	2	0:00	1:59
65	RT	Bridging Schedules	SCE	LA Basin	1-Jun-13	25	Yes	INC	2	22:00	23:59
66	RT	COI Mitigation	PG&E	Bay Area	8-Jun-13	139	Yes	INC	8	16:18	23:59
67	RT	Contingency	PG&E	Stockton	8-Jun-13	30- 265	No	INC	10	12:45	21:59
68	RT	Contingency	PG&E	Stockton	28-Jun-13	90- 192	No	INC	9	14:06	22:59
69	RT	Contingency	PG&E	Stockton	29-Jun-13	13- 40	No	DEC	5	15:25	19:27
70	RT	Contingency	PG&E	Stockton	29-Jun-13	12- 82	No	INC	9	15:25	23:59
71	RT	Fire	SCE	Big Creek- Ventura	1-Jun-13	100- 400	Yes	INC	24	0:00	23:59
72	RT	Fire	SCE	Big Creek- Ventura	2-Jun-13	100- 200	Yes	INC	24	0:00	23:59
73	RT	Fire	SCE	Big Creek- Ventura	3-Jun-13	100	Yes	INC	24	0:00	23:59
74	RT	Fire	SCE	LA Basin	1-Jun-13	20	Yes	INC	24	0:00	23:59
75	RT	Fire	SCE	LA Basin	1-Jun-13	0	No	DEC	2	22:30	23:59

				Local							
Num ber	Market Type	Reason	Location	Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
76	RT	Fire	SCE	LA Basin	1-Jun-13	45	No	INC	2	22:30	23:59
77	RT	Fire	SCE	LA Basin	2-Jun-13	71- 141	Yes	INC	14	7:55	20:59
- ' '	111	1 110	OOL	LA Dasin	2 0011 10	147-	103	1140	17	7.00	20.00
78	RT	Fire	SCE	LA Basin	3-Jun-13	161	No	DEC	6	16:35	21:59
79	RT	Fire	SCE	LA Basin	3-Jun-13	45- 141	Yes	INC	24	0:00	23:59
80	RT	Fire	SDG&E	San Diego-IV	1-Jun-13	20	No	INC	24	0:00	23:59
				Big Creek-							
81	RT	Generation Outage	SCE	Ventura	26-Jun-13	20	Yes	INC	5	15:12	19:59
82	RT	Generation Outage	SCE	LA Basin	26-Jun-13	25- 45	Yes	INC	17	7:00	23:59
83	RT	Load Forecast Uncertainty	PG&E	Bay Area	7-Jun-13	45	Yes	INC	24	0:00	23:59
84	RT	Load Forecast Uncertainty	PG&E	Bay Area	8-Jun-13	45	Yes	INC	17	0:00	16:17
					_	180-					
85	RT	Load Forecast Uncertainty	PG&E	Bay Area	9-Jun-13	225	Yes	INC	24	0:00	23:59
86	RT	Load Forecast Uncertainty	PG&E	Bay Area	12-Jun-13	253	No	INC	14	8:15	21:59
87	RT	Load Forecast Uncertainty	PG&E	Bay Area	28-Jun-13	45	Yes	INC	14	10:00	23:59
88	RT	Load Forecast Uncertainty	PG&E	N/A	5-Jun-13	52	No	INC	9	15:00	23:59
89	RT	Load Forecast Uncertainty	PG&E	N/A	7-Jun-13	52	No	INC	24	0:00	23:59
90	RT	Load Forecast Uncertainty	PG&E	N/A	17-Jun-13	141	Yes	INC	19	5:00	23:59
04	DT	Land Engage at the containt	005	Big Creek-	00 1 . 40	400	V <sub>z</sub> -	INIO	40	44.00	00.50
91	RT	Load Forecast Uncertainty	SCE	Ventura	30-Jun-13	100	Yes	INC	13 21	11:00	23:59
92	RT	Load Forecast Uncertainty	SCE	LA Basin	16-Jun-13	20	Yes			3:00	23:59
93	RT	Load Forecast Uncertainty	SCE	LA Basin	27-Jun-13	20- 40	Yes	INC	24	0:00	23:59
94	RT	Load Forecast Uncertainty	SCE	LA Basin	28-Jun-13	10- 30	Yes	INC	24	0:00	23:59
95	RT	Load Forecast Uncertainty	SCE	LA Basin	29-Jun-13	10	No	INC	18	6:00	23:59
96	RT	Load Forecast Uncertainty	SCE	LA Basin	30-Jun-13	10- 30	Yes	INC	24	0:00	23:59
97	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	27-Jun-13	20	No	INC	19	5:00	23:59
98	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	28-Jun-13	20	Yes	INC	18	6:00	23:59
99	RT	Market Disruption	PG&E	Bay Area	11-Jun-13	480	No	INC	2	13:38	14:11
100	RT	Market Disruption	PG&E	N/A	11-Jun-13	200- 350	No	INC	3	13:48	15:00

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
DCI	Турс	Reason	Location	Alca	Trade Bate	162-	Communicité	DLO	Hours	Time	Time
101	RT	Market Disruption	SCE	LA Basin	11-Jun-13	264	No	INC	3	13:29	15:00
		·				200-					
102	RT	Market Disruption	SDG&E	San Diego-IV	11-Jun-13	557	No	INC	3	13:28	15:00
103	RT	Path 15	PG&E	Bay Area	8-Jun-13	105	No	DEC	4	16:17	19:59
104	RT	Path 15	PG&E	Bay Area	23-Jun-13	180	Yes	INC	1	23:00	23:59
105	RT	Path 15	PG&E	Bay Area	24-Jun-13	180	Yes	INC	6	0:00	5:59
106	RT	Path 15	PG&E	N/A	8-Jun-13	70- 85	No	INC	4	16:19	19:59
107	RT	Path 15	PG&E	N/A	24-Jun-13	141	Yes	INC	5	0:00	4:59
108	RT	Path 26	SCE	N/A	1-Jun-13	410	No	INC	2	22:02	23:59
109	RT	RAS Outage	PG&E	Fresno	4-Jun-13	0	Yes	INC	1	23:40	23:59
110	RT	RAS Outage	PG&E	Fresno	5-Jun-13	0	No	INC	1	0:00	0:39
111	RT	SCE SOB 204	SCE	Big Creek- Ventura	1-Jun-13	9	No	INC	2	20:05	21:59
112	RT	SCE SOB 204	SCE	Big Creek- Ventura	2-Jun-13	54- 129	No	INC	3	19:05	21:59
113	RT	SCE SOB 204	SCE	Big Creek- Ventura	3-Jun-13	54- 189	No	INC	9	13:45	21:59
114	RT	SCE SOB 204	SCE	Big Creek- Ventura	5-Jun-13	51- 251	No	DEC	6	18:35	23:29
115	RT	SCE SOB 204	SCE	Big Creek- Ventura	27-Jun-13	2	No	DEC	2	20:45	21:59
116	RT	SCE SOB 204	SCE	Big Creek- Ventura	27-Jun-13	48- 73	No	INC	2	19:06	20:59
117	RT	SCE SOB 204	SCE	Big Creek- Ventura	28-Jun-13	23- 73	No	INC	3	19:27	21:59
118	RT	Software Limitation	PG&E	Bay Area	20-Jun-13	0	Yes	INC	2	18:21	19:39
119	RT	Software Limitation	PG&E	Fresno	6-Jun-13	0	Yes	INC	2	20:45	21:44
120	RT	Software Limitation	PG&E	Fresno	14-Jun-13	0	Yes	INC	1	17:10	17:39
121	RT	Software Limitation	PG&E	Fresno	30-Jun-13	0	No	INC	1	23:35	23:59
122	RT	Software Limitation	PG&E	N/A	4-Jun-13	52	No	INC	4	14:45	17:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
123	RT	Software Limitation	PG&E	N/A	17-Jun-13	0	No	INC	1	23:56	23:59
124	RT	Software Limitation	PG&E	N/A	18-Jun-13	180	Yes	DEC	7	0:30	6:29
125	RT	Software Limitation	PG&E	N/A	18-Jun-13	0	Yes	INC	7	0:30	6:29
126	RT	Software Limitation	PG&E	N/A	29-Jun-13	190	No	INC	12	2:05	13:59
127	RT	Software Limitation	PG&E	Sierra	4-Jun-13	0	Yes	INC	2	18:40	19:39
128	RT	Software Limitation	PG&E	Stockton	29-Jun-13	191	No	INC	4	4:30	7:59
129	RT	Software Limitation	SCE	Big Creek- Ventura	28-Jun-13	0	Yes	INC	2	1:15	2:14
130	RT	Software Limitation	SCE	LA Basin	5-Jun-13	600	No	INC	1	11:42	11:55
131	RT	Software Limitation	SCE	LA Basin	13-Jun-13	18	No	DEC	1	17:00	17:59
132	RT	Software Limitation	SCE	LA Basin	14-Jun-13	0	No	INC	7	17:20	23:59
133	RT	Software Limitation	SCE	LA Basin	15-Jun-13	0	No	INC	18	0:00	17:19
134	RT	Software Limitation	SCE	LA Basin	20-Jun-13	0	Yes	INC	15	0:55	14:54
135	RT	Software Limitation	SCE	LA Basin	29-Jun-13	0	Yes	INC	2	19:30	20:29
136	RT	Software Limitation	SDG&E	San Diego-IV	5-Jun-13	22	No	DEC	2	11:21	12:59
137	RT	SP26 Capacity	SCE	LA Basin	2-Jun-13	45	Yes	INC	24	0:00	23:59
138	RT	SP26 Capacity	SCE	LA Basin	6-Jun-13	25	Yes	INC	16	8:00	23:59
139	RT	SP26 Capacity	SCE	LA Basin	13-Jun-13	20- 45	Yes	INC	23	1:00	23:59
140	RT	System Energy	Intertie	N/A	16-Jun-13	336	No	DEC	1	18:00	18:59
141	RT	System Energy	Intertie	N/A	16-Jun-13	0	No	INC	1	18:00	18:59
142	RT	System Energy	Intertie	N/A	30-Jun-13	65	Yes	INC	1	21:00	21:59
143	RT	Transmission Mitigation	PG&E	Sierra	24-Jun-13	26- 36	Yes	DEC	3	20:35	22:59
144	RT	Transmission Mitigation	PG&E	Sierra	25-Jun-13	25- 35	Yes	DEC	5	18:39	22:59
145	RT	Transmission Mitigation	SCE	N/A	4-Jun-13	28- 82	No	DEC	2	8:40	9:59
146	RT	Transmission Mitigation	SCE	N/A	4-Jun-13	12	No	INC	1	9:15	9:59
147	RT	Transmission Outage PG&E	PG&E	Bay Area	12-Jun-13	19	No	INC	3	20:46	22:29
148	RT	Transmission Outage PG&E	PG&E	Bay Area	28-Jun-13	168	No	DEC	2	12:30	13:59
149	RT	Transmission Outage PG&E	PG&E	Fresno	6-Jun-13	44	No	INC	2	0:50	1:59
150	RT	Transmission Outage PG&E	PG&E	Humboldt	28-Jun-13	16	No	INC	14	7:30	20:59

				Local							
Num ber	Market Type	Reason	Location	Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
151	RT	Transmission Outage PG&E	PG&E	Kern	8-Jun-13	42	Yes	INC	7	15:26	21:59
152	RT	Transmission Outage PG&E	PG&E	N/A	24-Jun-13	1	No	INC	12	12:00	23:59
153	RT	Transmission Outage PG&E	PG&E	Sierra	18-Jun-13	20	Yes	INC	5	7:00	11:34
154	RT	Transmission Outage SCE	SCE	LA Basin	23-Jun-13	5- 80	No	DEC	16	7:00	22:59
155	RT	Transmission Outage SCE	SCE	LA Basin	23-Jun-13	160	No	INC	16	7:00	22:59
450	DT	Transmission Outage	CDCSE	Can Diama IV	05 lun 40	07	V	INIC	4		40.50
156	RT	SDG&E	SDG&E	San Diego-IV	25-Jun-13	37	Yes	INC	1	16:00	16:59
157	RT	Unit Testing	PG&E	Bay Area	5-Jun-13	45- 844	Yes	INC	22	2:00	23:59
158	RT	Unit Testing	PG&E	Bay Area	6-Jun-13	45- 130	Yes	INC	24	0:00	23:59
159	RT	Unit Testing	PG&E	Bay Area	8-Jun-13	85	Yes	INC	3	21:00	23:59
160	RT	Unit Testing	PG&E	Bay Area	9-Jun-13	85- 400	No	INC	20	0:00	19:59
161	RT	Unit Testing	PG&E	Bay Area	20-Jun-13	120	Yes	INC	6	7:15	12:59
162	RT	Unit Testing	PG&E	Bay Area	21-Jun-13	120- 190	Yes	INC	8	7:05	14:59
163	RT	Unit Testing	PG&E	Bay Area	24-Jun-13	120	Yes	INC	9	7:00	15:59
				•		120-			-		
164	RT	Unit Testing	PG&E	Bay Area	25-Jun-13	189	Yes	INC	4	7:05	10:59
165	RT	Unit Testing	PG&E	Bay Area	26-Jun-13	560- 738	No	INC	2	9:28	10:36
		_		-		155-					
166	RT	Unit Testing	PG&E	N/A	10-Jun-13	458	No	INC	4	9:19	12:28
167	RT	Unit Testing	PG&E	N/A	16-Jun-13	150	Yes	INC	24	0:55	23:59
168	RT	Unit Testing	PG&E	N/A	17-Jun-13	150- 170	Yes	INC	7	0:00	6:59
169	RT	Unit Testing	PG&E	N/A	18-Jun-13	170	Yes	INC	2	22:05	23:59
170	RT	Unit Testing	PG&E	N/A	19-Jun-13	170	Yes	INC	24	0:00	23:59
171	RT	Unit Testing	PG&E	N/A	20-Jun-13	170	Yes	INC	24	0:00	23:59
172	RT	Unit Testing	PG&E	N/A	21-Jun-13	170	Yes	INC	24	0:00	23:59
112	17.1	Office resulting	FOOL	IN/A	21-Juli-13	237-	169	IIVC	<u> </u>	0.00	20.08
173	RT	Unit Testing	PG&E	Stockton	18-Jun-13	325	No	INC	7	9:25	15:59

				Local						<u>.</u>	
Num ber	Market Type	Reason	Location	Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
174	RT	Unit Testing	PG&E	Stockton	19-Jun-13	89- 160	No	INC	11	10:00	20:59
175	RT	Unit Testing	PG&E	Stockton	20-Jun-13	89	No	INC	8	10:00	17:59
176	RT	Unit Testing	SCE	LA Basin	3-Jun-13	80	No	INC	6	10:05	15:29
177	RT	Unit Testing	SCE	LA Basin	4-Jun-13	46- 174	Yes	INC	16	8:05	23:59
178	RT	Unit Testing	SCE	LA Basin	5-Jun-13	130- 760	Yes	INC	24	0:00	23:59
179	RT	Unit Testing	SCE	LA Basin	6-Jun-13	130- 490	Yes	INC	24	0:00	23:59
180	RT	Unit Testing	SCE	LA Basin	7-Jun-13	130- 320	No	INC	24	0:00	23:59
181	RT	Unit Testing	SCE	LA Basin	8-Jun-13	160- 200	No	INC	12	12:35	23:59
182	RT	Unit Testing	SCE	LA Basin	9-Jun-13	180- 423	No	INC	15	6:15	20:59
183	RT	Unit Testing	SCE	LA Basin	10-Jun-13	175	No	INC	7	16:25	22:59
184	RT	Unit Testing	SCE	LA Basin	11-Jun-13	150- 346	No	INC	17	7:15	23:59
185	RT	Unit Testing	SCE	LA Basin	12-Jun-13	240- 420	No	INC	18	6:50	23:59
186	RT	Unit Testing	SCE	LA Basin	13-Jun-13	150- 450	No	INC	18	6:05	23:59
187	RT	Unit Testing	SCE	LA Basin	14-Jun-13	147- 294	No	INC	17	7:40	23:59
188	RT	Unit Testing	SCE	LA Basin	15-Jun-13	147- 243	No	INC	23	0:10	22:59
189	RT	Unit Testing	SCE	LA Basin	16-Jun-13	180- 360	No	INC	10	9:15	18:59
190	RT	Unit Testing	SCE	LA Basin	17-Jun-13	150- 514	No	INC	20	4:05	23:59
191	RT	Unit Testing	SCE	LA Basin	18-Jun-13	150- 424	No	INC	24	0:00	23:59
192	RT	Unit Testing	SCE	LA Basin	19-Jun-13	150-	No	INC	24	0:00	23:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
	. , , ,	11000011		700	Trade Date	400		320	1100.10	11110	
193	RT	Unit Testing	SCE	LA Basin	20-Jun-13	200- 440	No	INC	24	0:00	23:59
194	RT	Unit Testing	SCE	LA Basin	21-Jun-13	151- 190	No	INC	19	0:00	18:59
195	RT	Unit Testing	SCE	LA Basin	22-Jun-13	245	No	INC	13	7:00	19:59
196	RT	Unit Testing	SCE	LA Basin	23-Jun-13	170- 260	No	INC	12	12:05	23:59
197	RT	Unit Testing	SCE	LA Basin	24-Jun-13	170- 430	No	INC	24	0:00	23:59
198	RT	Unit Testing	SCE	LA Basin	25-Jun-13	170- 535	Yes	INC	24	0:05	23:59
199	RT	Unit Testing	SCE	LA Basin	26-Jun-13	170- 355	No	INC	17	0:00	16:59
200	RT	Unit Testing	SCE	LA Basin	27-Jun-13	260	No	INC	7	11:15	17:59
201	RT	Unit Testing	SCE	LA Basin	28-Jun-13	180- 250	No	INC	8	11:55	18:59
202	RT	Unit Testing	SCE	LA Basin	29-Jun-13	250	No	INC	1	0:35	0:39
203	RT	Unit Testing	SDG&E	San Diego-IV	19-Jun-13	100- 274	No	INC	15	6:00	20:59

## **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 7630. 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	Α	SCE	LA BASIN	05:00	10:00	50	7630
01-Jul-09	DA	В	SCE	LA BASIN	08:00	20:00	30	7630
01-Jul-09	DA	С	SCE	LA BASIN	09:00	23:00	20	7630

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	7630	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 7110. 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 7110. 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	Α	PG&E	Humboldt	06:00	11:00	30	0	Yes	INC	30	7110
01-Jul-09	RT	В	PG&E	Humboldt	07:00	09:00	40	20	No	INC	20	7110
01-Jul-09	RT	С	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	7110
01-Jul-09	RT	С	PG&E	Humboldt	16:00	20:00	50	40	No	INC	10	7110

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	7110	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 7430. 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	Α	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	7430
01-Jul-09	RT	В	PG&E	Fresno	07:00	09:00	40	60	No	DEC	20	7430
01-Jul-09	RT	С	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	7430

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

Nu	mber	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time
	1	RT	7430	PG&E	Fresno	1-Jul-09	20	Yes	INC	6	15:00	20:00
	1	RT	7430	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 lists in the above-referenced 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 15<sup>th</sup> day of August 2013.

<u>(s/ Anna Pascuzzo</u> Anna Pascuzzo