

July 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-\_\_\_\_  
May 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 May 2013.

Respectfully submitted,

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# Exceptional Dispatch Report

## Table 1: May 2013

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## 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 May 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 inertia emergency assistance. All of the transmission procedures are available on the CAISO website<sup>2</sup>.

In May 2013, the ISO issued exceptional dispatches for the following generation and transmission operating requirements: (1) 7110, transmission facilities in

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<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).

<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>

Humboldt area, (2) 7120, North Geysers Area 115 kV Lines (3) 7430, transmission facilities in Fresno area (4) 7810, San Diego area generation requirements (5) 7720, Julian Hinds – Mirage 230 kV line overload mitigation, and (6) 7230, transmission facilities in Palermo – Rio Oso area

The following additional reason for exceptional dispatch instructions in May 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 May, 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.

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<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.

Table 1 indicates that there were a total of 213 exceptional dispatches in May 2013, increasing by 90 as compared to the April 2013. Exceptional dispatches issued for the following reasons accounted for approximately 62.23 percent of the total exceptional dispatches during the reporting period: software limitation, unit testing, transmission outage PG&E, transmission outage SCE and 7430 transmission facilities in Fresno area.

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

**California Independent System Operator Corporation  
Exceptional Dispatch Report  
July 15, 2013**

**Chart 1: Table of Exceptional Dispatches for Period 01/May/2013 – 31/ May /2013**

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
1	RT	6510	SCE	Big Creek- Ventura	8-May-13	50	Yes	INC	10	12:25	21:59
2	RT	6510	SCE	LA Basin	8-May-13	71	Yes	INC	10	12:25	21:59
3	RT	7110	PG&E	Humboldt	7-May-13	15	No	INC	3	15:17	17:11
4	RT	7120	PG&E	NCNB	1-May-13	27- 53	No	DEC	20	2:15	21:59
5	RT	7230	PG&E	Sierra	4-May-13	20- 46	Yes	INC	8	16:17	23:44
6	RT	7430	PG&E	Fresno	3-May-13	20	No	INC	7	15:30	21:59
7	RT	7430	PG&E	Fresno	4-May-13	3	No	DEC	2	21:57	22:18
8	RT	7430	PG&E	Fresno	4-May-13	20- 300	Yes	INC	15	8:10	22:34
9	RT	7430	PG&E	Fresno	7-May-13	25	Yes	DEC	3	21:15	23:59
10	RT	7430	PG&E	Fresno	7-May-13	25	Yes	INC	3	21:45	23:59
11	RT	7430	PG&E	Fresno	8-May-13	25- 45	No	DEC	3	13:25	15:59
12	RT	7430	PG&E	Fresno	8-May-13	5- 10	No	INC	3	15:55	17:59
13	RT	7430	PG&E	Fresno	9-May-13	20	No	INC	6	10:17	15:59
14	RT	7430	PG&E	Fresno	10-May-13	20- 38	No	INC	2	20:18	21:29
15	RT	7430	PG&E	Fresno	11-May-13	20	No	INC	11	12:50	22:59
16	RT	7430	PG&E	Fresno	12-May-13	25- 140	Yes	DEC	6	14:50	19:59
17	RT	7430	PG&E	Fresno	12-May-13	20- 370	Yes	INC	13	11:15	23:14
18	RT	7430	PG&E	Fresno	13-May-13	20	No	INC	10	13:16	22:59
19	RT	7430	PG&E	Fresno	14-May-13	20- 103	Yes	INC	13	11:40	23:58
20	RT	7430	PG&E	Fresno	15-May-13	23- 80	No	INC	23	0:00	22:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
21	RT	7430	PG&E	Fresno	25-May-13	75	No	INC	1	14:39	14:47
22	RT	7430	PG&E	Fresno	26-May-13	25	Yes	INC	2	0:26	1:18
23	RT	7430	PG&E	Fresno	30-May-13	20- 50	No	INC	5	19:12	23:59
24	RT	7430	PG&E	Fresno	31-May-13	20- 40	No	INC	19	4:53	22:59
25	RT	7430	SDG&E	San Diego-IV	12-May-13	20	No	INC	13	11:00	23:59
26	RT	7720	SCE	N/A	11-May-13	400-408	No	INC	5	16:25	20:59
27	RT	7810	SDG&E	San Diego-IV	25-May-13	155	No	INC	1	23:00	23:59
28	RT	7810	SDG&E	San Diego-IV	26-May-13	155	No	INC	10	0:00	9:59
29	RT	Bridging Schedules	SCE	Big Creek-Ventura	31-May-13	100	Yes	INC	1	23:30	23:59
30	RT	Bridging Schedules	SCE	LA Basin	3-May-13	20- 40	Yes	INC	2	22:00	23:59
31	RT	Bridging Schedules	SDG&E	San Diego-IV	13-May-13	20	Yes	INC	1	23:00	23:59
32	RT	Bridging Schedules	SDG&E	San Diego-IV	21-May-13	20	Yes	INC	3	21:00	23:59
33	RT	COI Mitigation	PG&E	Fresno	22-May-13	0	No	INC	1	0:08	0:24
34	RT	Contingency	Intertie	N/A	14-May-13	34	No	DEC	1	13:15	13:36
35	RT	Contingency	Intertie	N/A	30-May-13	-30	No	INC	1	17:00	17:59
36	RT	Contingency	PG&E	Bay Area	30-May-13	47	No	INC	2	16:10	17:19
37	RT	Contingency	PG&E	Fresno	29-May-13	48	Yes	INC	3	20:13	22:59
38	RT	Contingency	PG&E	Fresno	30-May-13	166-808	Yes	INC	1	16:07	16:46
39	RT	Contingency	PG&E	N/A	30-May-13	141	Yes	INC	2	16:07	17:13
40	RT	Contingency	SCE	Big Creek-Ventura	29-May-13	0	No	INC	1	1:15	1:39
41	RT	Contingency	SCE	Big Creek-Ventura	30-May-13	230-560	Yes	INC	2	16:07	17:15
42	RT	Contingency	SCE	LA Basin	17-May-13	45	No	INC	2	5:10	6:59
43	RT	Contingency	SCE	LA Basin	30-May-13	74- 234	No	DEC	2	16:42	17:24
44	RT	Contingency	SCE	LA Basin	30-May-13	376-448	Yes	INC	2	16:22	17:06

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
45	RT	Contingency	SDG&E	San Diego-IV	30-May-13	367	Yes	INC	2	16:30	17:44
46	RT	Dispatch Modification	PG&E	N/A	15-May-13	0	Yes	INC	1	1:00	1:59
47	RT	Fire	PG&E	Bay Area	2-May-13	92- 112	Yes	INC	6	10:02	15:14
48	RT	Fire	SCE	LA Basin	31-May-13	234-258	No	DEC	8	13:48	20:59
49	RT	Fire	SCE	LA Basin	31-May-13	380	Yes	INC	8	13:48	20:59
50	RT	Intertie Emergency Assistance	Intertie	N/A	12-May-13	100	No	INC	1	1:43	1:59
51	RT	Intertie Emergency Assistance	Intertie	N/A	15-May-13	125	No	INC	1	10:00	10:59
52	RT	Load Forecast Uncertainty	PG&E	Bay Area	9-May-13	180	Yes	INC	24	0:00	23:59
53	RT	Load Forecast Uncertainty	PG&E	N/A	13-May-13	180	Yes	INC	10	14:00	23:59
54	RT	Load Forecast Uncertainty	PG&E	N/A	23-May-13	140	Yes	INC	9	14:00	22:59
55	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	30-May-13	40	Yes	INC	14	7:00	20:59
56	RT	Load Forecast Uncertainty	SCE	LA Basin	4-May-13	20- 60	Yes	INC	24	0:00	23:59
57	RT	Load Forecast Uncertainty	SCE	LA Basin	22-May-13	20	Yes	INC	20	0:00	19:59
58	RT	Load Forecast Uncertainty	SCE	LA Basin	30-May-13	40	Yes	INC	24	0:00	23:59
59	RT	Load Forecast Uncertainty	SCE	N/A	23-May-13	40	Yes	INC	9	14:00	22:59
60	RT	Over Generation	PG&E	Bay Area	2-May-13	0	Yes	DEC	6	10:02	15:14
61	RT	Over Generation	PG&E	Bay Area	2-May-13	46	Yes	INC	6	10:02	15:14
62	RT	Over Generation	PG&E	Bay Area	14-May-13	180	No	DEC	1	23:55	23:58
63	RT	Over Generation	PG&E	Bay Area	26-May-13	420	No	INC	2	9:42	10:10
64	RT	Over Generation	PG&E	Fresno	10-May-13	66	No	INC	1	2:18	2:59
65	RT	Over Generation	PG&E	Fresno	26-May-13	297-340	Yes	DEC	3	9:20	11:29
66	RT	Over Generation	SCE	Big Creek-Ventura	10-May-13	347-348	No	DEC	2	1:33	2:59
67	RT	Over Generation	SCE	Big Creek-Ventura	26-May-13	309	No	DEC	2	9:11	10:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
68	RT	Over Generation	SDG&E	San Diego-IV	14-May-13	571	No	INC	1	23:53	23:58
69	RT	Path 15	PG&E	Bay Area	24-May-13	253	No	INC	21	1:00	21:59
70	RT	Path 15	SCE	N/A	22-May-13	50- 250	No	DEC	1	6:07	6:59
71	RT	Path 26	SDG&E	San Diego-IV	15-May-13	63	No	INC	7	15:00	21:59
72	RT	Reverse Commitment Instruction	PG&E	Fresno	16-May-13	0	Yes	INC	1	23:27	23:58
73	RT	SCE SOB 204	SCE	Big Creek-Ventura	29-May-13	51	No	INC	3	17:20	19:59
74	RT	SCE SOB 204	SCE	Big Creek-Ventura	30-May-13	76	No	INC	4	18:40	21:59
75	RT	SP26 Capacity	PG&E	Fresno	13-May-13	800	Yes	INC	5	14:33	18:19
76	RT	SP26 Capacity	SCE	Big Creek-Ventura	12-May-13	20	Yes	INC	17	7:00	23:59
77	RT	SP26 Capacity	SCE	Big Creek-Ventura	30-May-13	40	Yes	INC	3	21:00	23:59
78	RT	SP26 Capacity	SCE	LA Basin	7-May-13	70	Yes	INC	23	1:00	23:59
79	RT	SP26 Capacity	SCE	LA Basin	12-May-13	20	Yes	INC	17	7:00	23:59
80	RT	SP26 Capacity	SCE	LA Basin	30-May-13	60- 400	Yes	INC	7	17:50	23:59
81	RT	SP26 Capacity	SCE	LA Basin	31-May-13	60	Yes	INC	24	0:00	23:59
82	RT	SP26 Capacity	SDG&E	San Diego-IV	15-May-13	20	Yes	INC	5	17:00	21:59
83	RT	SP26 Capacity	SDG&E	San Diego-IV	16-May-13	20	No	INC	22	2:00	23:59
84	RT	SP26 Capacity	SDG&E	San Diego-IV	30-May-13	20- 387	No	INC	5	19:37	23:59
85	RT	SP26 Capacity	SDG&E	San Diego-IV	31-May-13	20	No	INC	24	0:00	23:59
86	RT	Software Limitation	Intertie	N/A	1-May-13	167	Yes	INC	1	23:00	23:59
87	RT	Software Limitation	Intertie	N/A	10-May-13	0	Yes	INC	1	2:00	2:59
88	RT	Software Limitation	Intertie	N/A	26-May-13	150	No	DEC	1	0:00	0:59
89	RT	Software Limitation	Intertie	N/A	30-May-13	-200	Yes	INC	1	17:00	17:59
90	RT	Software Limitation	Intertie	N/A	31-May-13	200	Yes	INC	1	7:00	7:59
91	RT	Software Limitation	PG&E	Bay Area	15-May-13	600	No	INC	12	0:50	11:59
92	RT	Software Limitation	PG&E	Bay Area	26-May-13	380-	No	INC	12	10:11	21:29

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
						500					
93	RT	Software Limitation	PG&E	Fresno	3-May-13	0	Yes	INC	2	21:20	22:19
94	RT	Software Limitation	PG&E	Fresno	5-May-13	0	Yes	INC	2	1:05	2:04
95	RT	Software Limitation	PG&E	Fresno	8-May-13	300	Yes	DEC	1	23:45	23:59
96	RT	Software Limitation	PG&E	Fresno	9-May-13	0	Yes	INC	13	0:00	12:29
97	RT	Software Limitation	PG&E	Fresno	10-May-13	83	Yes	INC	12	10:05	21:59
98	RT	Software Limitation	PG&E	Fresno	16-May-13	300	No	DEC	1	6:00	6:19
99	RT	Software Limitation	PG&E	Fresno	28-May-13	0	Yes	INC	2	7:15	8:34
100	RT	Software Limitation	PG&E	Fresno	30-May-13	0	No	INC	1	15:06	15:19
101	RT	Software Limitation	PG&E	Humboldt	7-May-13	29	No	INC	4	17:12	20:18
102	RT	Software Limitation	PG&E	N/A	5-May-13	52	No	INC	16	8:00	23:59
103	RT	Software Limitation	PG&E	N/A	9-May-13	0	No	INC	3	0:05	2:04
104	RT	Software Limitation	PG&E	N/A	17-May-13	190	No	INC	1	23:34	23:58
105	RT	Software Limitation	PG&E	N/A	18-May-13	190	No	INC	1	0:00	0:19
106	RT	Software Limitation	PG&E	N/A	22-May-13	330	No	INC	5	11:45	15:59
107	RT	Software Limitation	PG&E	N/A	24-May-13	0	Yes	INC	2	19:00	20:04
108	RT	Software Limitation	PG&E	NCNB	10-May-13	0	No	INC	2	18:47	19:31
109	RT	Software Limitation	SCE	Big Creek- Ventura	6-May-13	0	Yes	INC	2	0:20	1:19
110	RT	Software Limitation	SCE	Big Creek- Ventura	10-May-13	294	No	INC	3	1:17	3:59
111	RT	Software Limitation	SCE	LA Basin	3-May-13	0	Yes	INC	2	21:20	22:24
112	RT	Software Limitation	SCE	LA Basin	6-May-13	0	Yes	INC	2	0:50	1:59
113	RT	Software Limitation	SCE	LA Basin	19-May-13	300	No	INC	4	20:10	23:59
114	RT	Software Limitation	SCE	LA Basin	20-May-13	324	Yes	INC	11	0:10	10:49
115	RT	Software Limitation	SCE	LA Basin	21-May-13	70- 324	Yes	INC	24	0:10	23:59
116	RT	Software Limitation	SCE	LA Basin	28-May-13	20	No	INC	2	15:35	16:11
117	RT	Software Limitation	SCE	N/A	10-May-13	0	Yes	INC	3	21:40	23:58
118	RT	Software Limitation	SCE	N/A	14-May-13	0	No	INC	1	0:25	0:54

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
119	RT	Software Limitation	SDG&E	San Diego-IV	13-May-13	44	No	DEC	3	17:55	19:19
120	RT	Software Limitation	SDG&E	San Diego-IV	13-May-13	0	No	INC	8	16:00	23:59
121	RT	Software Limitation	SDG&E	San Diego-IV	18-May-13	200	No	INC	4	0:00	3:59
122	RT	Thermal Margin	PG&E	Bay Area	29-May-13	253	No	INC	15	7:00	21:59
123	RT	Thermal Margin	PG&E	Fresno	13-May-13	49	Yes	INC	2	15:52	16:39
124	RT	Thermal Margin	PG&E	N/A	13-May-13	40	No	INC	16	8:00	23:59
125	RT	Thermal Margin	SCE	Big Creek- Ventura	13-May-13	20- 40	Yes	INC	23	1:00	23:59
126	RT	Thermal Margin	SCE	LA Basin	13-May-13	10- 20	Yes	INC	24	0:00	23:59
127	RT	Thermal Margin	SCE	LA Basin	29-May-13	20	Yes	INC	24	0:00	23:59
128	RT	Transmission Outage	SCE	LA Basin	28-May-13	20	Yes	INC	3	0:00	2:29
129	RT	Transmission Outage	SCE	N/A	7-May-13	40	Yes	INC	23	1:00	23:59
130	RT	Transmission Outage PG&E	PG&E	Bay Area	1-May-13	2- 5	No	DEC	14	0:00	13:38
131	RT	Transmission Outage PG&E	PG&E	Bay Area	1-May-13	0- 42	No	INC	14	0:00	13:38
132	RT	Transmission Outage PG&E	PG&E	Bay Area	3-May-13	28	Yes	INC	4	14:01	17:59
133	RT	Transmission Outage PG&E	PG&E	Bay Area	5-May-13	9- 42	No	INC	4	2:51	5:12
134	RT	Transmission Outage PG&E	PG&E	Fresno	1-May-13	390	No	INC	17	6:00	22:59
135	RT	Transmission Outage PG&E	PG&E	Fresno	2-May-13	390	No	INC	11	13:17	23:59
136	RT	Transmission Outage PG&E	PG&E	Fresno	6-May-13	152	Yes	INC	1	23:15	23:59
137	RT	Transmission Outage PG&E	PG&E	Fresno	7-May-13	25- 52	Yes	INC	6	0:00	5:59
138	RT	Transmission Outage PG&E	PG&E	Fresno	11-May-13	320- 400	No	INC	5	16:28	20:59
139	RT	Transmission Outage PG&E	PG&E	Fresno	17-May-13	260- 555	No	INC	6	9:53	14:59
140	RT	Transmission Outage PG&E	PG&E	Fresno	20-May-13	425	No	INC	1	14:50	14:59
141	RT	Transmission Outage PG&E	PG&E	Fresno	27-May-13	10	No	INC	1	1:15	1:19
142	RT	Transmission Outage PG&E	PG&E	Humboldt	8-May-13	29- 80	No	INC	6	6:04	11:59
143	RT	Transmission Outage PG&E	PG&E	Humboldt	20-May-13	29	No	INC	3	20:44	22:49
144	RT	Transmission Outage PG&E	PG&E	Humboldt	21-May-13	15- 30	No	INC	14	10:17	23:44

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
145	RT	Transmission Outage PG&E	PG&E	Humboldt	22-May-13	29- 32	No	INC	16	7:27	22:59
146	RT	Transmission Outage PG&E	PG&E	Humboldt	23-May-13	29	No	INC	16	7:27	22:44
147	RT	Transmission Outage PG&E	PG&E	Humboldt	24-May-13	15- 30	No	INC	17	6:50	22:59
148	RT	Transmission Outage PG&E	PG&E	Humboldt	25-May-13	32	No	INC	2	20:48	21:49
149	RT	Transmission Outage PG&E	PG&E	Humboldt	27-May-13	32	No	INC	4	19:00	22:59
150	RT	Transmission Outage PG&E	PG&E	Humboldt	28-May-13	32	No	INC	4	19:30	22:59
151	RT	Transmission Outage PG&E	PG&E	N/A	5-May-13	119	No	DEC	4	15:45	18:59
152	RT	Transmission Outage PG&E	PG&E	N/A	5-May-13	0	No	INC	4	15:45	18:59
153	RT	Transmission Outage PG&E	PG&E	N/A	11-May-13	240-359	Yes	INC	5	16:28	20:59
154	RT	Transmission Outage PG&E	PG&E	N/A	16-May-13	119	No	DEC	4	10:00	13:59
155	RT	Transmission Outage PG&E	PG&E	N/A	17-May-13	119	No	DEC	3	10:08	12:59
156	RT	Transmission Outage PG&E	PG&E	N/A	17-May-13	1	No	INC	5	10:25	14:59
157	RT	Transmission Outage PG&E	PG&E	NCNB	16-May-13	4- 40	No	DEC	10	9:25	18:59
158	RT	Transmission Outage PG&E	PG&E	NCNB	16-May-13	0	No	INC	3	9:25	11:59
159	RT	Transmission Outage PG&E	SCE	LA Basin	11-May-13	255	No	DEC	1	17:20	17:59
160	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	13-May-13	30- 93	No	INC	3	17:26	19:59
161	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	16-May-13	158	No	DEC	1	23:51	23:56
162	RT	Transmission Outage SCE	SCE	LA Basin	14-May-13	10	Yes	INC	15	9:00	23:59
163	RT	Transmission Outage SCE	SCE	LA Basin	16-May-13	18- 115	No	INC	2	19:57	20:08
164	RT	Transmission Outage SCE	SCE	LA Basin	18-May-13	33- 37	No	DEC	4	11:38	14:59
165	RT	Transmission Outage SCE	SCE	LA Basin	18-May-13	0	No	INC	4	11:40	14:59
166	RT	Transmission Outage SCE	SCE	LA Basin	28-May-13	20	Yes	INC	22	2:15	23:59
167	RT	Transmission Outage SCE	SCE	N/A	8-May-13	0	No	INC	10	14:55	23:59
168	RT	Transmission Outage SCE	SCE	N/A	9-May-13	5	No	INC	24	0:00	23:59
169	RT	Transmission Outage SCE	SCE	N/A	10-May-13	5	No	INC	18	0:00	17:59
170	RT	Transmission Outage SCE	SDG&E	San Diego-IV	17-May-13	40- 123	Yes	INC	24	0:00	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
171	RT	Transmission Outage SCE	SDG&E	San Diego-IV	19-May-13	40- 60	Yes	INC	24	0:00	23:59
172	RT	Transmission Outage SCE	SDG&E	San Diego-IV	22-May-13	60	Yes	INC	20	0:00	19:59
173	RT	Transmission Outage SDG&E	SDG&E	San Diego-IV	13-May-13	0	No	INC	3	10:45	12:09
174	RT	Transmission Outage SDG&E	SDG&E	San Diego-IV	20-May-13	18	Yes	INC	8	11:39	18:59
175	RT	Unit Testing	PG&E	Fresno	18-May-13	335	No	INC	2	14:15	15:59
176	RT	Unit Testing	PG&E	Fresno	23-May-13	200-400	Yes	INC	7	10:40	16:49
177	RT	Unit Testing	PG&E	N/A	18-May-13	121-200	Yes	INC	7	9:10	15:59
178	RT	Unit Testing	PG&E	N/A	19-May-13	124	Yes	INC	3	11:55	13:59
179	RT	Unit Testing	PG&E	N/A	22-May-13	120-365	Yes	INC	17	7:35	23:59
180	RT	Unit Testing	PG&E	N/A	23-May-13	153-353	Yes	INC	17	7:05	23:59
181	RT	Unit Testing	PG&E	N/A	24-May-13	121-300	Yes	INC	11	7:00	17:39
182	RT	Unit Testing	PG&E	N/A	26-May-13	121	Yes	INC	3	7:00	9:59
183	RT	Unit Testing	PG&E	N/A	27-May-13	119-150	Yes	INC	6	7:00	12:59
184	RT	Unit Testing	PG&E	N/A	28-May-13	140-156	Yes	INC	11	13:10	23:59
185	RT	Unit Testing	PG&E	N/A	29-May-13	120-359	Yes	INC	24	0:00	23:59
186	RT	Unit Testing	SCE	Big Creek-Ventura	30-May-13	100-741	Yes	INC	15	9:00	23:59
187	RT	Unit Testing	SCE	Big Creek-Ventura	31-May-13	100-741	Yes	INC	24	0:00	23:29
188	RT	Unit Testing	SCE	LA Basin	13-May-13	16- 376	No	DEC	18	6:00	23:59
189	RT	Unit Testing	SCE	LA Basin	13-May-13	0- 15	No	INC	18	6:00	23:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
190	RT	Unit Testing	SCE	LA Basin	14-May-13	52	No	DEC	4	16:05	19:59
191	RT	Unit Testing	SCE	LA Basin	14-May-13	198- 490	No	INC	8	12:15	19:59
192	RT	Unit Testing	SCE	LA Basin	15-May-13	16	No	DEC	18	6:00	23:59
193	RT	Unit Testing	SCE	LA Basin	15-May-13	0	No	INC	18	6:00	23:59
194	RT	Unit Testing	SCE	LA Basin	16-May-13	130- 495	Yes	INC	21	0:00	20:59
195	RT	Unit Testing	SCE	LA Basin	17-May-13	120- 495	Yes	INC	5	16:15	20:59
196	RT	Unit Testing	SCE	LA Basin	21-May-13	10	Yes	INC	13	11:00	23:59
197	RT	Unit Testing	SCE	LA Basin	22-May-13	490	Yes	INC	24	0:00	23:59
198	RT	Unit Testing	SCE	LA Basin	23-May-13	130- 450	Yes	INC	22	0:00	21:59
199	RT	Unit Testing	SCE	LA Basin	24-May-13	130- 320	Yes	INC	10	12:10	21:59
200	RT	Unit Testing	SCE	N/A	13-May-13	147	No	INC	9	8:25	16:59
201	RT	Unit Testing	SCE	N/A	14-May-13	48- 96	No	DEC	4	12:55	15:26
202	RT	Unit Testing	SCE	N/A	14-May-13	0	No	INC	3	13:41	15:22
203	RT	Unit Testing	SCE	N/A	15-May-13	48	No	DEC	1	14:25	14:39
204	RT	Unit Testing	SCE	N/A	15-May-13	175- 369	Yes	INC	17	7:15	23:59
205	RT	Unit Testing	SCE	N/A	16-May-13	147- 186	No	INC	24	0:00	23:59
206	RT	Unit Testing	SCE	N/A	17-May-13	147	No	INC	24	0:00	23:59
207	RT	Unit Testing	SCE	N/A	20-May-13	147	No	INC	18	6:30	23:59
208	RT	Unit Testing	SCE	N/A	22-May-13	180- 380	No	INC	17	7:10	23:59
209	RT	Unit Testing	SCE	N/A	23-May-13	186- 459	No	INC	23	1:10	23:59
210	RT	Unit Testing	SCE	N/A	24-May-13	180- 186	No	INC	24	0:00	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
211	RT	Unit Testing	SCE	N/A	25-May-13	180	No	INC	24	0:00	23:59
212	RT	Unit Testing	SCE	N/A	26-May-13	147-190	No	INC	24	0:00	23:59
213	RT	Unit Testing	SDG&E	San Diego-IV	24-May-13	186	No	INC	1	13:35	13:59

## 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	A	SCE	LA BASIN	05:00	10:00	50	7630
01-Jul-09	DA	B	SCE	LA BASIN	08:00	20:00	30	7630
01-Jul-09	DA	C	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	A	PG&E	Humboldt	06:00	11:00	30	0	Yes	INC	30	7110
01-Jul-09	RT	B	PG&E	Humboldt	07:00	09:00	40	20	No	INC	20	7110
01-Jul-09	RT	C	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	7110
01-Jul-09	RT	C	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	A	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	7430
01-Jul-09	RT	B	PG&E	Fresno	07:00	09:00	40	60	No	DEC	20	7430
01-Jul-09	RT	C	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**

Number	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 July 2013.

*Anna Pascuzzo*

Anna Pascuzzo