

January 15, 2014

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 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 November 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
Fax (916) 608-7222
sdavies@casio.com



# **Exceptional Dispatch Report**

**Table 1: November 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	13
Example 3: Decremental Exceptional Dispatch Instructions in RTM	
LIST OF TABLES AND FIGURES  Table 1: Exceptional Dispatches in November 2013	6
LIST OF TABLES AND FIGURES	
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	
Table 5: FERC Summary of ED Instructions in RTM	
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 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 November 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 November 2013, the ISO issued exceptional dispatches for the following generation and transmission operating requirements:

CAISO\Market Quality and Renewable Integration

<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).

<sup>&</sup>lt;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

- (1) 6510, SCIT Operating procedure,
- (2) 7110, Humboldt Area

The following additional reason for exceptional dispatch instructions in November 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 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 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.

CAISO\Market Quality and Renewable Integration

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

Table 1 indicates that there were a total of 116 exceptional dispatches in November 2013, as compared to 99 exceptional dispatches in October 2013. Exceptional dispatches issued for the following reasons accounted for approximately 68 percent of the total exceptional dispatches during the reporting period: software limitation, Operating procedure 6510 and transmission outage PG&E.

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

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

## Chart 1: Table of Exceptional Dispatches for Period 01/November/2013 – 30/November/2013

Num	Market			Local Reliability				INC_		Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	Commitment	DEC	Hours	Time	Time
1	RT	6510	PG&E	N/A	25-Nov-13	180	Yes	INC	8	16:00	23:59
2	RT	6510	PG&E	Stockton	30-Nov-13	140	No	INC	12	11:00	22:59
				Big Creek-							
3	RT	6510	SCE	Ventura	8-Nov-13	20- 60	Yes	DEC	11	9:55	19:59
				Big Creek-							
4	RT	6510	SCE	Ventura	8-Nov-13	1- 60	Yes	INC	11	9:55	19:59
				Big Creek-							
5	RT	6510	SCE	Ventura	14-Nov-13	39	Yes	DEC	15	7:35	21:59
				Big Creek-							
6	RT	6510	SCE	Ventura	14-Nov-13	60- 110	Yes	INC	22	0:00	21:59
	<b>5.</b>	0740	205	Big Creek-					_	4= 40	1.0 -0
7	RT	6510	SCE	Ventura	16-Nov-13	60	Yes	INC	5	15:40	19:59
	D.T.	0540	005	Big Creek-	47.11 40	166-	.,	DE0		40.00	40.50
8	RT	6510	SCE	Ventura	17-Nov-13	280	Yes	DEC	4	16:00	19:59
	DT	0540	005	Big Creek-	47 No. 40	100-	V	INIC	0.4	0.00	00.50
9	RT	6510	SCE	Ventura	17-Nov-13	460	Yes	INC	24	0:00	23:59
10	RT	6510	SCE	Big Creek-	10 Nov 12	120-	Voc	DEC	8	14:20	24.50
10	KI	6510	SCE	Ventura	18-Nov-13	166	Yes	DEC	0	14.20	21:59
11	RT	6510	SCE	Big Creek- Ventura	18-Nov-13	60- 100	Yes	INC	8	14:20	21:59
	Γ	0010	SCE		10-1100-13	00-100	162	INC	0	14.20	21.09
12	RT	6510	SCE	Big Creek- Ventura	19-Nov-13	60	Yes	INC	4	16:00	19:59
13	RT	6510	SCE	Big Creek-	20-Nov-13	166-	Yes	DEC	4	16:35	19:59

Num	Market	_		Local Reliability				INC_		Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	Commitment	DEC	Hours	Time	Time
				Ventura		205					
4.4	DT	0540	005	Big Creek-	00 Nov. 40	00	V	INIC	4	40.05	40.50
14	RT	6510	SCE	Ventura	20-Nov-13	60	Yes	INC	4	16:35	19:59
15	RT	6510	SCE	Big Creek- Ventura	25-Nov-13	20- 50	Yes	INC	11	13:00	23:59
13	ΝI	6510	302	CAISO	25-1107-13	20- 30	162	INC	11	13.00	23.59
16	RT	6510	SCE	Import	14-Nov-13	225	No	INC	1	0:00	0:59
-10	111	0010	002	ппрот	11110110	120-	110		· ·	0.00	0.00
17	RT	6510	SCE	LA Basin	8-Nov-13	254	Yes	DEC	11	9:55	19:59
18	RT	6510	SCE	LA Basin	8-Nov-13	46- 246	Yes	INC	11	9:55	19:59
19	RT	6510	SCE	LA Basin	13-Nov-13	60- 407	Yes	DEC	14	10:00	23:59
						150-					
20	RT	6510	SCE	LA Basin	13-Nov-13	390	Yes	INC	14	10:00	23:59
21	RT	6510	SCE	LA Basin	14-Nov-13	56- 729	No	DEC	17	5:40	21:59
22	RT	6510	SCE	LA Basin	14-Nov-13	0- 212	No	INC	22	0:00	21:59
23	RT	6510	SCE	LA Basin	16-Nov-13	87- 176	No	DEC	10	10:55	19:59
24	RT	6510	SCE	LA Basin	16-Nov-13	26- 220	No	INC	10	10:20	19:59
						124-					
25	RT	6510	SCE	LA Basin	17-Nov-13	372	No	DEC	6	14:30	19:59
26	RT	6510	SCE	LA Basin	17-Nov-13	66- 162	No	INC	6	14:30	19:59
27	RT	6510	SCE	LA Basin	18-Nov-13	59- 407	Yes	DEC	15	7:15	21:59
28	RT	6510	SCE	LA Basin	18-Nov-13	46- 193	Yes	INC	15	7:15	21:59
29	RT	6510	SCE	LA Basin	19-Nov-13	56- 200	Yes	DEC	12	10:35	21:59
30	RT	6510	SCE	LA Basin	19-Nov-13	46- 216	Yes	INC	12	10:35	21:59
31	RT	6510	SCE	LA Basin	20-Nov-13	0- 357	No	DEC	13	7:30	19:59
32	RT	6510	SCE	LA Basin	20-Nov-13	291	Yes	INC	13	7:25	19:59
33	RT	6510	SCE	LA Basin	22-Nov-13	0- 171	Yes	DEC	13	7:30	19:59
						190-					
34	RT	6510	SCE	LA Basin	22-Nov-13	406	Yes	INC	13	7:30	19:59
35	RT	6510	SCE	LA Basin	25-Nov-13	20- 171	Yes	INC	9	15:00	23:59

				Local							
Num	Market			Reliability				INC_		Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	Commitment	DEC	Hours	Time	Time
36	RT	6510	SCE	LA Basin	26-Nov-13	150	No	INC	12	3:15	14:59
37	RT	6510	SDG&E	San Diego-IV	8-Nov-13	65	No	INC	11	9:50	19:59
38	RT	6510	SDG&E	San Diego-IV	16-Nov-13	63	No	INC	10	10:00	19:59
39	RT	6510	SDG&E	San Diego-IV	18-Nov-13	131	No	INC	15	7:15	21:59
40	RT	6510	SDG&E	San Diego-IV	19-Nov-13	131	No	INC	12	10:30	21:59
41	RT	6510	SDG&E	San Diego-IV	20-Nov-13	131	No	INC	14	6:48	19:59
42	RT	6510	SDG&E	San Diego-IV	22-Nov-13	60- 171	Yes	INC	24	0:00	23:59
43	RT	6510	SDG&E	San Diego-IV	25-Nov-13	20- 63	No	INC	9	15:00	23:59
				Big Creek-							
44	RT	6610	SCE	Ventura	13-Nov-13	23- 440	Yes	DEC	13	11:45	23:59
45	DT	0040	005	Big Creek-	40 Nov. 40	F0 000	V	INIC	40	44.55	00.50
45	RT	6610	SCE	Ventura CAISO	13-Nov-13	58- 360	Yes	INC	13	11:55	23:59
46	RT	6610	SCE	Import	13-Nov-13	25- 159	No	DEC	14	10:40	23:59
40	111	0010	UUL	CAISO	10 1407 10	20 100	140	DLO	17	10.40	20.00
47	RT	6610	SCE	Import	13-Nov-13	3- 105	No	INC	12	12:40	23:59
48	RT	7110	PG&E	Humboldt	3-Nov-13	15	No	INC	5	17:54	21:30
49	RT	7110	PG&E	Humboldt	4-Nov-13	15	No	INC	15	7:15	21:29
50	RT	7110	PG&E	Humboldt	5-Nov-13	15	No	INC	14	8:54	21:54
51	RT	7110	PG&E	Humboldt	7-Nov-13	16	No	INC	11	11:18	21:14
52	RT	7110	PG&E	Humboldt	15-Nov-13	15	No	INC	6	18:38	23:44
53	RT	7110	PG&E	Humboldt	16-Nov-13	15- 29	No	INC	14	8:01	21:59
54	RT	7110	PG&E	Humboldt	21-Nov-13	30- 60	No	INC	15	6:43	20:43
				Big Creek-							
55	RT	Bridging Schedules	SCE	Ventura	16-Nov-13	100	Yes	INC	4	20:00	23:59
56	RT	Bridging Schedules	SDG&E	San Diego-IV	2-Nov-13	40- 60	Yes	INC	3	21:00	23:59
57	RT	Generation Outage	PG&E	Bay Area	1-Nov-13	0	No	INC	3	8:00	10:59
58	RT	Market Disruption	Intertie	N/A	3-Nov-13	133	No	DEC	1	23:00	23:59
59	RT	Market Disruption	Intertie	N/A	3-Nov-13	500	No	INC	1	23:00	23:59
60	RT	Market Disruption	PG&E	Fresno	30-Nov-13	483-	Yes	INC	2	20:08	21:12

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
						800					
61	RT	Software Limitation	PG&E	Fresno	13-Nov-13	20	No	INC	8	14:45	21:59
62	RT	Software Limitation	PG&E	Fresno	22-Nov-13	77- 160	Yes	DEC	2	5:48	6:14
63	RT	Software Limitation	PG&E	Fresno	22-Nov-13	0	Yes	INC	2	5:48	6:03
64	RT	Software Limitation	PG&E	N/A	1-Nov-13	0	No	INC	1	23:30	23:58
65	RT	Software Limitation	SCE	Big Creek- Ventura	12-Nov-13	0	Yes	INC	2	19:35	20:34
66	RT	Software Limitation	SCE	Big Creek- Ventura	20-Nov-13	0	Yes	INC	1	23:00	23:58
67	RT	Software Limitation	SCE	Big Creek- Ventura	21-Nov-13	0	Yes	INC	7	0:00	6:59
68	RT	Software Limitation	SCE	LA Basin	1-Nov-13	96	No	DEC	1	20:05	20:34
69	RT	Software Limitation	SCE	LA Basin	2-Nov-13	0	Yes	INC	2	0:25	1:24
70	RT	Software Limitation	SCE	LA Basin	4-Nov-13	0	Yes	INC	2	22:30	23:29
71	RT	Software Limitation	SCE	LA Basin	10-Nov-13	184	Yes	DEC	2	19:30	20:29
72	RT	Software Limitation	SCE	LA Basin	13-Nov-13	92	Yes	DEC	2	15:50	16:49
73	RT	Software Limitation	SCE	LA Basin	25-Nov-13	151	No	INC	2	14:45	15:14
74	RT	Software Limitation	SCE	LA Basin	26-Nov-13	20	No	DEC	3	0:00	2:59
75	RT	Software Limitation	SDG&E	San Diego-IV	3-Nov-13	20	No	INC	3	2:10	4:59
76	RT	System Energy	Intertie	N/A	13-Nov-13	400	No	DEC	1	18:00	18:59
77	RT	System Energy	Intertie	N/A	13-Nov-13	700	No	INC	1	18:00	18:59
78	RT	System Energy	Intertie	N/A	14-Nov-13	300	No	INC	1	15:00	15:59
79	RT	Thermal Margin	PG&E	Bay Area	3-Nov-13	175	No	INC	17	5:00	21:59
80	RT	Thermal Margin	SCE	LA Basin	20-Nov-13	20	Yes	INC	8	16:00	23:59
81	RT	Transmission Outage Other	PG&E	Bay Area	14-Nov-13	480	No	INC	11	8:00	18:59
82	RT	Transmission Outage PG&E	N/A	N/A	26-Nov-13	40	No	INC	1	8:10	8:59
83	RT	Transmission Outage PG&E	PG&E	Bay Area	5-Nov-13	450	No	INC	2	6:47	7:59
	_			_		470-					
84	RT	Transmission Outage PG&E	PG&E	Bay Area	6-Nov-13	490	No	INC	13	6:22	18:29
85	RT	Transmission Outage PG&E	PG&E	Bay Area	13-Nov-13	480-	No	INC	13	6:30	18:29

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
						500					
86	RT	Transmission Outage PG&E	PG&E	Bay Area	14-Nov-13	480	No	INC	2	6:20	7:24
87	RT	Transmission Outage PG&E	PG&E	Fresno	3-Nov-13	0	No	INC	4	9:25	12:59
88	RT	Transmission Outage PG&E	PG&E	Fresno	15-Nov-13	45	Yes	INC	2	11:11	12:59
89	RT	Transmission Outage PG&E	PG&E	Fresno	19-Nov-13	20	No	INC	10	10:45	19:59
90	RT	Transmission Outage PG&E	PG&E	Fresno	26-Nov-13	40	No	INC	1	9:10	9:59
91	RT	Transmission Outage PG&E	PG&E	Fresno	27-Nov-13	0	Yes	INC	1	4:28	4:50
92	RT	Transmission Outage PG&E	PG&E	Fresno	29-Nov-13	0	Yes	INC	2	3:52	4:01
93	RT	Transmission Outage PG&E	PG&E	Humboldt	2-Nov-13	30- 32	No	INC	12	6:28	17:59
94	RT	Transmission Outage PG&E	PG&E	Humboldt	9-Nov-13	15- 30	No	INC	19	5:47	23:59
95	RT	Transmission Outage PG&E	PG&E	Humboldt	10-Nov-13	30- 44	No	INC	10	6:21	15:59
96	RT	Transmission Outage PG&E	PG&E	Humboldt	12-Nov-13	16	No	INC	14	7:47	20:53
97	RT	Transmission Outage PG&E	PG&E	Humboldt	13-Nov-13	15	No	INC	11	7:08	17:24
98	RT	Transmission Outage PG&E	PG&E	Humboldt	14-Nov-13	15- 44	No	INC	14	6:19	19:25
99	RT	Transmission Outage PG&E	PG&E	Humboldt	21-Nov-13	30- 45	No	INC	5	9:00	13:44
100	RT	Transmission Outage PG&E	PG&E	Humboldt	26-Nov-13	15- 30	No	INC	17	6:10	22:26
101	RT	Transmission Outage PG&E	PG&E	Sierra	18-Nov-13	20	Yes	INC	13	6:00	18:59
102	RT	Transmission Outage PG&E	PG&E	Stockton	26-Nov-13	37- 126	No	INC	9	8:43	16:59
103	RT	Transmission Outage SCE	PG&E	Fresno	18-Nov-13	0	Yes	INC	1	5:12	5:34
104	RT	Transmission Outage SCE	SCE	LA Basin	1-Nov-13	20- 402	Yes	INC	20	4:00	23:59
105	RT	Transmission Outage SCE	SCE	LA Basin	3-Nov-13	20- 40	No	INC	1	23:00	23:59
106	RT	Transmission Outage SCE	SCE	LA Basin	21-Nov-13	46	Yes	INC	2	6:37	7:46
107	RT	Transmission Outage SCE	SDG&E	San Diego-IV	1-Nov-13	20- 89	Yes	INC	17	7:00	23:59
108	RT	Transmission Outage SCE	SDG&E	San Diego-IV	3-Nov-13	20	No	INC	24	0:00	23:59
109	RT	Transmission Outage SCE	SDG&E	San Diego-IV	4-Nov-13	20	No	INC	24	0:00	23:59
110	RT	Transmission Outage SCE	SDG&E	San Diego-IV	5-Nov-13	20	No	INC	24	0:00	23:59
111	RT	Transmission Outage SDG&E	SCE	LA Basin	1-Nov-13	72	No	INC	5	14:30	18:59
112	RT	Transmission Outage	SDG&E	San Diego-IV	6-Nov-13	39	No	DEC	5	16:55	20:59

Num ber	Market Type	Reason SDG&E	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_ DEC	Hours	Begin Time	End Time
113	RT	Transmission Outage SDG&E	SDG&E	San Diego-IV	6-Nov-13	0	No	INC	5	16:55	20:59
114	RT	Transmission Outage SDG&E	SDG&E	San Diego-IV	27-Nov-13	44- 45	Yes	INC	7	7:25	13:59
115	RT	Unit Testing	PG&E	Sierra	14-Nov-13	166	Yes	INC	5	6:15	10:59
116	RT	Unit Testing	PG&E	Stockton	30-Nov-13	140	No	INC	1	10:20	10:59

## **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** 

N	lumber	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 January 2014.

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