



# **Exceptional Dispatch Report**

## **Table 1: January 2010**

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## Introduction

This report is filed pursuant to the FERC September 2<sup>nd</sup> order in ER08-1178, which prescribed a particular format for all exceptional dispatch reporting. This report follows that format as modified by the ISO's request for clarification filed on September 14, 2009.

## 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 intertie emergency assistance. All reason codes starting with "G" refer to an ISO operation 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>.

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<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 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 January 2010, the ISO issued exceptional dispatches for the following local area generation requirement: (1) G-219, SCE area generation requirements; Exceptional dispatch instructions were also issued for following transmission management requirements: (1) T-103, Southern California import transmission (SCIT) nomogram; (2) T-129, transmission facilities in Fresno area; (3) T-132, transmission facilities in San Diego and Imperial Valley area; (4) T-133, transmission facilities in Bay Area; (5) T-135, Lugo-Victorville 500 kV Line and Sylmar Transformer Banks Operation; (6) T-138, transmission facilities in Humboldt area; and (7) other transmission outages in PG&E, SCE and SDG&E area.

The following additional reasons for exceptional dispatch instructions in January 2010 were not related to specific generation or transmission operating procedures: (1) Intertie Emergency Assistance, when CAISO was providing assistance to its neighboring control area; (2) 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.); (3) Market Disruption, when the exceptional dispatch instructions were issued due to HASP failures; and (4) 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 January, 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”)

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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 October.

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 of 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 185 exceptional dispatches in January, a decrease of 22 compared to the 207 exceptional dispatches reported in the January 2010 report. Real-time exceptional dispatches in January accounted for approximately 88 percent of all exceptional dispatches categorized by date and reason. Exceptional dispatches issued for the following reasons accounted for approximately 60 percent of the total exceptional dispatches during the reporting period: Software Limitation, SP26 Capacity, Transmission Outage in SCE area, T-138, and Transmission Outage in PG&E area. In day-ahead market, approximately 91 percent of the exceptional dispatches were issued for SP26 Capacity and Transmission Outage in SCE area. In real-time market, approximately 54 percent of the exceptional dispatches were issued for Software Limitation, T-138, Transmission Outage in PG&E area, and Transbay Cable Testing.

**Table 1: Exceptional Dispatches in January 2010**

California Independent System Operator Corporation Exceptional Dispatch Report March 15, 2010											
Chart 1: Table of Exceptional Dispatches for Period 01/Jan/2010 - 31/Jan/2010											
Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC DEC	Hours	Begin Time	End Time
1	DA	Generation Outage SP26	SDG&E	San Diego	8-Jan-10	20	Yes	N/A	24	0:00	23:00
2	DA	SP26 Capacity	SCE	LA Basin	18-Jan-10	20	Yes	N/A	5	19:00	23:00
3	DA	SP26 Capacity	SCE	LA Basin	19-Jan-10	20	Yes	N/A	4	20:00	23:00
4	DA	SP26 Capacity	SCE	LA Basin	25-Jan-10	20	Yes	N/A	5	19:00	23:00
5	DA	SP26 Capacity	SCE	LA Basin	26-Jan-10	20	Yes	N/A	6	18:00	23:00
6	DA	SP26 Capacity	SDG&E	San Diego	1-Jan-10	20	Yes	N/A	24	0:00	23:00
7	DA	SP26 Capacity	SDG&E	San Diego	2-Jan-10	20	Yes	N/A	24	0:00	23:00
8	DA	SP26 Capacity	SDG&E	San Diego	3-Jan-10	20	Yes	N/A	24	0:00	23:00
9	DA	SP26 Capacity	SDG&E	San Diego	4-Jan-10	20	Yes	N/A	24	0:00	23:00
10	DA	SP26 Capacity	SDG&E	San Diego	5-Jan-10	20	Yes	N/A	24	0:00	23:00
11	DA	SP26 Capacity	SDG&E	San Diego	6-Jan-10	20	Yes	N/A	24	0:00	23:00
12	DA	SP26 Capacity	SDG&E	San Diego	7-Jan-10	20	Yes	N/A	24	0:00	23:00
13	DA	SP26 Capacity	SDG&E	San Diego	10-Jan-10	200	Yes	N/A	24	0:00	23:00
14	DA	SP26 Capacity	SDG&E	San Diego	11-Jan-10	200	Yes	N/A	24	0:00	23:00
15	DA	T-135	SCE	N/A	19-Jan-10	40	Yes	N/A	13	6:00	18:00
16	DA	Transmission Outage SCE	SCE	Big Creek- Ventura	4-Jan-10	20	Yes	N/A	10	6:00	15:00
17	DA	Transmission Outage SCE	SCE	Big Creek- Ventura	8-Jan-10	20	Yes	N/A	10	5:00	14:00
18	DA	Transmission Outage SCE	SCE	LA Basin	2-Jan-10	20	Yes	N/A	18	6:00	23:00
19	DA	Transmission Outage SCE	SCE	LA Basin	3-Jan-10	20	Yes	N/A	14	6:00	19:00

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Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
20	DA	Transmission Outage SCE	SCE	LA Basin	5-Jan-10	40	Yes	N/A	18	6:00	23:00
21	DA	Transmission Outage SCE	SCE	LA Basin	6-Jan-10	40	Yes	N/A	24	0:00	23:00
22	DA	Transmission Outage SCE	SCE	LA Basin	10-Jan-10	160	Yes	N/A	19	0:00	18:00
23	DA	Transmission Outage SCE	SCE	LA Basin	28-Jan-10	20	Yes	N/A	4	20:00	23:00
24	RT	DC Circulation	N/A	N/A	8-Jan-10	146	No	INC	1	23:00	23:59
25	RT	DC Circulation	N/A	N/A	9-Jan-10	258- 414	No	INC	5	0:00	4:59
26	RT	DC Circulation	N/A	N/A	10-Jan-10	366- 766	No	INC	2	22:00	23:59
27	RT	DC Circulation	N/A	N/A	11-Jan-10	304	No	INC	1	23:00	23:59
28	RT	G-219	SCE	LA Basin	4-Jan-10	20	Yes	INC	24	0:00	23:59
29	RT	Generation Outage SP26	PG&E	Fresno	19-Jan-10	0	Yes	DEC	2	16:58	17:34
30	RT	Generation Outage SP26	PG&E	Fresno	19-Jan-10	166- 800	Yes	INC	2	16:39	17:34
31	RT	Generation Outage SP26	SCE	LA Basin	18-Jan-10	72	Yes	INC	1	17:10	17:59
32	RT	Generation Outage SP26	SCE	LA Basin	19-Jan-10	84	Yes	INC	3	16:42	18:59
33	RT	Generation Outage SP26	SDG&E	San Diego	18-Jan-10	39	Yes	INC	1	17:20	17:59
34	RT	Generation Outage SP26	SDG&E	San Diego	19-Jan-10	46	Yes	INC	3	16:42	18:59
35	RT	Generation Outage SP26	SDG&E	San Diego	21-Jan-10	20	Yes	INC	24	0:00	23:59
36	RT	Intertie Emergency Assistance	N/A	N/A	6-Jan-10	100	No	INC	1	14:35	14:59
37	RT	Intertie Emergency Assistance	N/A	N/A	20-Jan-10	100- 150	No	INC	2	19:32	20:59
38	RT	Load Forecast Uncertainty	PG&E	Bay Area	21-Jan-10	45	No	INC	19	5:00	23:59
39	RT	Load Forecast Uncertainty	PG&E	N/A	19-Jan-10	69- 500	No	DEC	5	18:00	22:59
40	RT	Load Forecast Uncertainty	SCE	Big Creek- Ventura	19-Jan-10	20	Yes	INC	15	9:00	23:59
41	RT	Load Forecast Uncertainty	SCE	Big Creek- Ventura	20-Jan-10	20	Yes	INC	14	0:00	13:59
42	RT	Load Forecast Uncertainty	SCE	Big Creek- Ventura	21-Jan-10	20	Yes	INC	24	0:00	23:59

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
43	RT	Load Forecast Uncertainty	SCE	LA Basin	20-Jan-10	20	Yes	INC	24	0:00	23:59
44	RT	Load Forecast Uncertainty	SCE	LA Basin	21-Jan-10	10	Yes	INC	18	6:00	23:59
45	RT	Load Forecast Uncertainty	SCE	LA Basin	22-Jan-10	40- 50	Yes	INC	24	0:00	23:59
46	RT	Load Forecast Uncertainty	SDG&E	San Diego	20-Jan-10	20	Yes	INC	19	0:00	18:59
47	RT	Market Disruption	N/A	N/A	3-Jan-10	360	Yes	INC	1	18:00	18:59
48	RT	Market Disruption	N/A	N/A	21-Jan-10	5	Yes	INC	2	22:00	23:59
49	RT	Market Disruption	N/A	N/A	23-Jan-10	97	No	DEC	1	8:00	8:59
50	RT	Market Disruption	N/A	N/A	23-Jan-10	94- 102	Yes	INC	3	8:00	10:59
51	RT	Market Disruption	N/A	N/A	28-Jan-10	0	No	INC	1	23:00	23:59
52	RT	Market Disruption	N/A	N/A	30-Jan-10	50	Yes	INC	1	9:00	9:59
53	RT	Over Generation	PG&E	N/A	13-Jan-10	228	Yes	DEC	1	17:02	17:21
54	RT	Over Generation	PG&E	Sierra	13-Jan-10	207	Yes	DEC	1	17:01	17:21
55	RT	Pump Management	PG&E	Fresno	13-Jan-10	308	Yes	DEC	1	23:55	23:59
56	RT	Pump Management	PG&E	Fresno	13-Jan-10	0	Yes	INC	1	23:40	23:59
57	RT	Pump Management	PG&E	Fresno	15-Jan-10	0	Yes	INC	1	3:00	3:59
58	RT	Pump Management	SCE	N/A	13-Jan-10	0	No	INC	7	0:00	6:29
59	RT	Ramp Rate	PG&E	N/A	19-Jan-10	200	Yes	INC	1	5:38	5:55
60	RT	Ramp Rate	SCE	Big Creek-Ventura	19-Jan-10	50	Yes	INC	12	7:50	18:59
61	RT	Ramp Rate	SCE	LA Basin	11-Jan-10	65	Yes	INC	4	16:00	19:59
62	RT	Ramp Rate	SCE	LA Basin	12-Jan-10	45- 65	No	INC	15	6:45	20:59
63	RT	Ramp Rate	SCE	LA Basin	29-Jan-10	65	Yes	INC	5	16:55	20:59
64	RT	SCE Import Limit	SCE	LA Basin	7-Jan-10	20- 200	Yes	INC	24	0:00	23:59
65	RT	SCE Import Limit	SCE	LA Basin	25-Jan-10	5- 265	Yes	DEC	24	0:00	23:59
66	RT	SCE Import Limit	SCE	LA Basin	25-Jan-10	20	Yes	INC	24	0:00	23:59
67	RT	SCE Import Limit	SCE	LA Basin	27-Jan-10	31	Yes	DEC	1	13:45	13:49
68	RT	SCE Import Limit	SCE	LA Basin	28-Jan-10	20	Yes	INC	2	22:00	23:59
69	RT	SCE Import Limit	SCE	LA Basin	29-Jan-10	20	Yes	INC	18	6:00	23:59
70	RT	SP26 Capacity	SCE	Big Creek-	10-Jan-10	20	Yes	INC	3	15:00	17:59

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
				Ventura							
71	RT	SP26 Capacity	SCE	Big Creek-Ventura	11-Jan-10	20	Yes	INC	11	9:00	19:59
72	RT	SP26 Capacity	SCE	LA Basin	8-Jan-10	40	Yes	INC	24	0:00	23:59
73	RT	SP26 Capacity	SCE	LA Basin	11-Jan-10	20	Yes	INC	3	5:00	7:59
74	RT	Software Limitation	N/A	N/A	16-Jan-10	65	Yes	INC	2	15:00	16:59
75	RT	Software Limitation	N/A	N/A	21-Jan-10	10	Yes	DEC	1	11:00	11:59
76	RT	Software Limitation	PG&E	Bay Area	9-Jan-10	295	Yes	DEC	2	21:45	22:59
77	RT	Software Limitation	PG&E	Bay Area	20-Jan-10	0	No	INC	7	8:30	14:59
78	RT	Software Limitation	PG&E	Fresno	3-Jan-10	1- 67	Yes	DEC	5	19:41	23:04
79	RT	Software Limitation	PG&E	Fresno	3-Jan-10	103	Yes	INC	5	19:41	23:04
80	RT	Software Limitation	PG&E	Fresno	11-Jan-10	0	Yes	INC	3	20:27	22:44
81	RT	Software Limitation	PG&E	Fresno	14-Jan-10	308	Yes	DEC	3	0:00	2:59
82	RT	Software Limitation	PG&E	Fresno	14-Jan-10	0	No	INC	6	0:10	5:59
83	RT	Software Limitation	PG&E	Fresno	18-Jan-10	308	No	DEC	1	6:20	6:59
84	RT	Software Limitation	PG&E	Fresno	18-Jan-10	0	Yes	INC	2	9:20	10:19
85	RT	Software Limitation	PG&E	Fresno	23-Jan-10	0	Yes	INC	1	19:35	19:49
86	RT	Software Limitation	PG&E	Fresno	25-Jan-10	308	Yes	DEC	2	2:00	3:29
87	RT	Software Limitation	PG&E	Fresno	25-Jan-10	0	Yes	INC	1	1:20	1:24
88	RT	Software Limitation	PG&E	Humboldt	17-Jan-10	0	Yes	INC	1	21:55	21:59
89	RT	Software Limitation	PG&E	Humboldt	30-Jan-10	0	Yes	INC	1	23:55	23:59
90	RT	Software Limitation	PG&E	N/A	19-Jan-10	216	No	DEC	3	21:55	23:39
91	RT	Software Limitation	PG&E	N/A	19-Jan-10	0	No	INC	3	21:55	23:39
92	RT	Software Limitation	PG&E	N/A	30-Jan-10	232	No	DEC	1	9:25	9:54
93	RT	Software Limitation	SCE	Big Creek-Ventura	7-Jan-10	0	No	INC	2	20:00	21:59
94	RT	Software Limitation	SCE	Big Creek-Ventura	27-Jan-10	32- 77	Yes	DEC	3	13:40	15:59
95	RT	Software Limitation	SCE	Big Creek-Ventura	30-Jan-10	356	No	DEC	1	9:25	9:54

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
96	RT	Software Limitation	SCE	LA Basin	2-Jan-10	22	Yes	INC	4	17:30	20:44
97	RT	Software Limitation	SCE	LA Basin	3-Jan-10	0	Yes	INC	1	19:15	19:44
98	RT	Software Limitation	SCE	LA Basin	4-Jan-10	220-240	Yes	INC	4	10:15	13:14
99	RT	Software Limitation	SCE	LA Basin	5-Jan-10	0	Yes	INC	17	6:35	22:34
100	RT	Software Limitation	SCE	LA Basin	6-Jan-10	0	Yes	INC	2	21:35	22:04
101	RT	Software Limitation	SCE	LA Basin	7-Jan-10	0	Yes	INC	1	8:30	8:59
102	RT	Software Limitation	SCE	LA Basin	10-Jan-10	0	Yes	INC	2	19:45	20:59
103	RT	Software Limitation	SCE	LA Basin	12-Jan-10	20	Yes	INC	2	22:00	23:59
104	RT	Software Limitation	SCE	LA Basin	14-Jan-10	20	Yes	INC	2	22:00	23:59
105	RT	Software Limitation	SCE	LA Basin	18-Jan-10	20	Yes	INC	1	23:00	23:59
106	RT	Software Limitation	SCE	LA Basin	19-Jan-10	80	Yes	DEC	6	0:00	5:59
107	RT	Software Limitation	SCE	LA Basin	19-Jan-10	20- 160	Yes	INC	24	0:00	23:59
108	RT	Software Limitation	SCE	LA Basin	21-Jan-10	20	Yes	INC	2	22:00	23:59
109	RT	Software Limitation	SCE	LA Basin	26-Jan-10	0	Yes	INC	2	16:55	17:24
110	RT	Software Limitation	SCE	LA Basin	30-Jan-10	65	No	DEC	2	8:25	9:54
111	RT	Software Limitation	SCE	LA Basin	30-Jan-10	160	Yes	INC	10	12:05	21:59
112	RT	Software Limitation	SCE	LA Basin	31-Jan-10	47	No	DEC	2	20:25	21:24
113	RT	Software Limitation	SCE	LA Basin	31-Jan-10	0	No	INC	2	20:25	21:24
114	RT	Software Limitation	SCE	N/A	12-Jan-10	0	Yes	INC	1	23:10	23:59
115	RT	Software Limitation	SCE	N/A	18-Jan-10	475	Yes	INC	1	23:00	23:59
116	RT	Software Limitation	SDG&E	San Diego	18-Jan-10	30- 42	No	DEC	7	0:00	6:59
117	RT	Software Limitation	SDG&E	San Diego	19-Jan-10	20	Yes	INC	2	6:00	7:59
118	RT	Software Limitation	SDG&E	San Diego	20-Jan-10	0	Yes	INC	1	21:10	21:54
119	RT	Software Limitation	SDG&E	San Diego	30-Jan-10	50- 95	No	INC	2	8:32	9:54
120	RT	System Energy	SCE	LA Basin	18-Jan-10	160	Yes	INC	7	17:00	23:59
121	RT	T-103	SCE	LA Basin	22-Jan-10	20	Yes	INC	2	22:00	23:59
122	RT	T-129	PG&E	Fresno	17-Jan-10	308-616	Yes	DEC	6	2:35	7:14

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Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
123	RT	T-132	SDG&E	San Diego	20-Jan-10	150- 250	Yes	INC	2	19:32	20:39
124	RT	T-133	PG&E	Bay Area	19-Jan-10	70- 80	No	INC	3	17:35	19:59
125	RT	T-138	PG&E	Humboldt	10-Jan-10	0	Yes	INC	1	22:55	22:59
126	RT	T-138	PG&E	Humboldt	11-Jan-10	5- 10	Yes	DEC	3	18:02	20:59
127	RT	T-138	PG&E	Humboldt	11-Jan-10	0	Yes	INC	1	21:25	21:54
128	RT	T-138	PG&E	Humboldt	18-Jan-10	0	Yes	INC	1	23:20	23:49
129	RT	T-138	PG&E	Humboldt	19-Jan-10	5- 10	Yes	DEC	5	17:55	21:29
130	RT	T-138	PG&E	Humboldt	19-Jan-10	20	Yes	INC	17	7:17	23:54
131	RT	T-138	PG&E	Humboldt	20-Jan-10	10	Yes	DEC	11	11:10	21:34
132	RT	T-138	PG&E	Humboldt	20-Jan-10	15	Yes	INC	17	6:55	22:14
133	RT	T-138	PG&E	Humboldt	28-Jan-10	20- 40	No	INC	3	21:06	23:59
134	RT	T-138	PG&E	Humboldt	29-Jan-10	5- 15	Yes	DEC	24	0:50	23:59
135	RT	T-138	PG&E	Humboldt	29-Jan-10	40	Yes	INC	6	0:00	5:59
136	RT	T-138	PG&E	Humboldt	30-Jan-10	5- 10	Yes	DEC	7	16:05	22:09
137	RT	T-138	PG&E	Humboldt	30-Jan-10	15	Yes	INC	24	0:00	23:54
138	RT	T-138	PG&E	Humboldt	31-Jan-10	10- 15	Yes	DEC	7	17:30	23:59
139	RT	T-138	PG&E	Humboldt	31-Jan-10	10	Yes	INC	23	0:00	22:54
140	RT	Telemetry Error	PG&E	Bay Area	27-Jan-10	0	No	INC	1	11:30	11:59
141	RT	Transbay Cable Testing	N/A	N/A	5-Jan-10	800	No	DEC	3	9:50	11:59
142	RT	Transbay Cable Testing	N/A	N/A	6-Jan-10	800	No	DEC	1	15:45	15:59
143	RT	Transbay Cable Testing	N/A	N/A	12-Jan-10	50- 500	No	DEC	7	14:20	20:59
144	RT	Transbay Cable Testing	N/A	N/A	13-Jan-10	50- 800	No	DEC	7	9:35	15:59
145	RT	Transbay Cable Testing	N/A	N/A	13-Jan-10	0	No	INC	2	11:20	12:14
146	RT	Transbay Cable Testing	N/A	N/A	17-Jan-10	200- 694	No	DEC	6	17:15	22:14
147	RT	Transbay Cable Testing	N/A	N/A	17-Jan-10	0	No	INC	1	22:20	22:24
148	RT	Transbay Cable Testing	N/A	N/A	18-Jan-10	300- 500	No	DEC	4	18:45	21:14

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Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
149	RT	Transbay Cable Testing	N/A	N/A	19-Jan-10	50- 500	No	DEC	13	10:15	22:29
150	RT	Transbay Cable Testing	N/A	N/A	20-Jan-10	360- 600	No	DEC	5	17:15	21:29
151	RT	Transbay Cable Testing	PG&E	Bay Area	11-Jan-10	5- 55	No	DEC	5	16:40	20:59
152	RT	Transbay Cable Testing	PG&E	Bay Area	11-Jan-10	108	No	INC	12	9:00	20:59
153	RT	Transmission Outage Other	SDG&E	San Diego	20-Jan-10	91	Yes	INC	3	8:28	10:59
154	RT	Transmission Outage PG&E	PG&E	Bay Area	11-Jan-10	0	No	INC	3	7:55	9:10
155	RT	Transmission Outage PG&E	PG&E	Bay Area	12-Jan-10	10	No	DEC	1	18:50	18:54
156	RT	Transmission Outage PG&E	PG&E	Bay Area	12-Jan-10	10- 83	No	INC	5	18:25	22:59
157	RT	Transmission Outage PG&E	PG&E	Bay Area	16-Jan-10	9- 61	No	DEC	4	17:35	20:59
158	RT	Transmission Outage PG&E	PG&E	Bay Area	16-Jan-10	0	No	INC	4	17:35	20:59
159	RT	Transmission Outage PG&E	PG&E	Bay Area	18-Jan-10	30- 116	No	DEC	3	16:55	18:59
160	RT	Transmission Outage PG&E	PG&E	Fresno	20-Jan-10	83- 400	Yes	INC	3	8:22	10:19
161	RT	Transmission Outage PG&E	PG&E	Humboldt	25-Jan-10	10	Yes	DEC	7	16:50	22:59
162	RT	Transmission Outage PG&E	PG&E	Humboldt	25-Jan-10	20	Yes	INC	12	12:35	23:59
163	RT	Transmission Outage PG&E	PG&E	Humboldt	26-Jan-10	5- 30	Yes	DEC	16	7:20	22:59
164	RT	Transmission Outage PG&E	PG&E	Humboldt	26-Jan-10	35	Yes	INC	24	0:00	23:59
165	RT	Transmission Outage PG&E	PG&E	Humboldt	27-Jan-10	5- 10	Yes	DEC	1	17:25	17:49
166	RT	Transmission Outage PG&E	PG&E	Humboldt	27-Jan-10	5- 25	Yes	INC	22	0:35	21:59
167	RT	Transmission Outage PG&E	SCE	Big Creek- Ventura	4-Jan-10	20	Yes	INC	2	16:00	17:04
168	RT	Transmission Outage PG&E	SCE	LA Basin	20-Jan-10	84	Yes	INC	3	8:28	10:59
169	RT	Transmission Outage SCE	SCE	Big Creek- Ventura	9-Jan-10	10	Yes	INC	2	13:00	14:29
170	RT	Transmission Outage SCE	SCE	Big Creek- Ventura	11-Jan-10	180	No	DEC	2	6:12	7:29
171	RT	Transmission Outage SCE	SCE	Big Creek- Ventura	11-Jan-10	5- 10	No	INC	5	6:12	10:39
172	RT	Transmission Outage SCE	SCE	Big Creek- Ventura	12-Jan-10	1- 55	No	DEC	7	11:10	17:44

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
173	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	12-Jan-10	16- 185	No	INC	7	11:10	17:39
174	RT	Transmission Outage SCE	SCE	LA Basin	3-Jan-10	20	No	INC	3	21:00	23:59
175	RT	Transmission Outage SCE	SCE	LA Basin	4-Jan-10	100	Yes	INC	1	8:05	8:24
176	RT	Transmission Outage SCE	SCE	LA Basin	5-Jan-10	130	No	INC	1	7:30	7:54
177	RT	Transmission Outage SCE	SCE	LA Basin	27-Jan-10	20	Yes	INC	20	0:00	19:59
178	RT	Unit Testing	N/A	N/A	19-Jan-10	5- 18	No	DEC	2	9:12	10:12
179	RT	Unit Testing	N/A	N/A	19-Jan-10	1- 151	Yes	INC	2	9:12	10:58
180	RT	Unit Testing	PG&E	Fresno	11-Jan-10	83	Yes	INC	1	8:30	8:35
181	RT	Unit Testing	PG&E	Fresno	15-Jan-10	115	No	INC	1	9:18	9:22
182	RT	Unit Testing	SDG&E	San Diego	7-Jan-10	98	No	INC	1	9:00	9:20
183	RT	Voltage Support	PG&E	Fresno	24-Jan-10	308	No	DEC	1	5:35	5:49
184	RT	Voltage Support	PG&E	Fresno	25-Jan-10	308	Yes	DEC	3	3:50	5:14
185	RT	Voltage Support	SDG&E	San Diego	20-Jan-10	12	No	DEC	2	21:00	22:59

## 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-206. 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 shows hour ending 5 as this was the hour ending for first dispatch of the day, and the end time 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 is 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 shows the time of the first dispatch of the day. This is a time not a range. Similarly the end time 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