

Exceptional Dispatch Report

Table 1: June 2022

CAISO Market Analysis and Forecasting

August 15, 2022

CAISO 250 Outcropping Way Folsom, California 95630 (916) 351-4400

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	19
Example 3: Decremental Exceptional Dispatch Instructions in RTM	21

LIST OF TABLES AND FIGURES

Table 1: Exceptional Dispatches in June 2022	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	19
Table 5: FERC Summary of ED Instructions in RTM	20
Table 6: Decremental Exceptional Dispatch Instructions in RTM	21
Table 7: FERC Summary of Decremental ED Instructions in RTM	21

Introduction

This report is filed pursuant to FERC's September 2, 2009, and May 4, 2010, orders in Docket No. ER08-1178. These orders require two monthly Exceptional Dispatch reports—one issued on the 15th of each month and one originally issued on the 30th of each month. Both Table 1 and Table 2 reports will be issued on the 15th of each month due to the availability of necessary data. This report provides data on the frequency and reasons for Exceptional Dispatches issued in June 2022.

The Nature of Exceptional Dispatch

The CAISO can issue exceptional dispatch instructions for a resource as a preday-ahead unit commitment, which may also include a post-day-ahead unit commitment, or a real-time exceptional dispatch.¹ 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. A real-time exceptional dispatch above the resource day-ahead award is an incremental exceptional dispatch instruction and an exceptional dispatch below the day-ahead award is a decremental dispatch instruction.

The CAISO issues exceptional dispatch instructions to maintain the reliability of the grid when the market software cannot do so. Whenever the CAISO issues an exceptional dispatch instruction, the operator logs the dispatch and the associated reason.

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 non-modeled constraints or requirements and intertie emergency assistance. All of the transmission procedures are available on the CAISO website.²

The following reason for exceptional dispatch instructions in June 2022 was not related to 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 CAISO software does not handle multi day commitment. For instance, a resource has a

¹ The CAISO can issue exceptional dispatch instructions subject to authority of the CAISO Tariff Section 34.11 and in accordance with CAISO Operating Procedure 2330 (formerly M-402).

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

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 CAISO issues an exceptional dispatch to commit this resource in 2400 so 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. Interconnection Reliability Operating Limits (IROL) are system operating limits that are established to prevent instability, uncontrolled separation or cascading as described in operating procedure 3100. System Operating Limit (SOL) are the facility ratings, system voltage limits, transient stability limits, and voltage stability limits that are used in the operating horizon – any of which can be the most restrictive limit at any point in time, pre – or post – contingency. Control Point (CP) are imposed to protect the area transmission network against N - 1 contingencies. There were a few other reasons used to explain exceptional dispatch instructions in June 2022, which are self explanatory.

The data in Table 1 is based on a template specified in the September 2009 order.³ 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 column specifies if there was an incremental dispatch or a decremental dispatch from the IFM schedule. The Begin Time column shows the start of exceptional dispatch for the classification and the End Time column shows the end of exceptional dispatch for the classification. The column Hours is the difference between end time and begin time rounded up to the next hour. The data shown is further explained by way of example in Attachment A.

Table 1 indicates there were 320 exceptional dispatches in June 2022, as compared to 210 exceptional dispatches in May 2022. Exceptional dispatches issued for the following reasons accounted for approximately 70 percent of the

³ 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.

total exceptional dispatches during the reporting period: market disruption, planned transmission outages, reliability assessment and voltage support. Exceptional dispatches with the reason "Reliability Assessment" were due to Real Time Contingency Analysis, Voltage Stability Analysis, and operating procedure number 7110. Reliability Assessment is the reason as explained in the operator procedure 2330C⁴ that encompasses Control Point (CP), Interconnection Reliability Operating Limit (IROL), System Operating Limit (SOL) and congestion related EDs. This reason is used to mitigate reliability issues identified through the real – time assessment tools such as Real Time Contingency Analysis (RTCA), Voltage Stability Analysis (VSA), Dynamic Stability Analysis (DSA) and/or Operating Procedure (OP) or offline study.

^{1) &}lt;sup>4</sup> The operator procedure 2330C - <u>http://www.caiso.com/Documents/2330C.pdf</u>

Table 1: Exceptional Dispatches in June 2022

	California Independent System Operator Corporation Exceptional Dispatch Report August 15, 2022													
		Chart 1: Table of Except	otional Di	spatches for Peri	od 01/June	/2022 – 30/J	lune/2	022						
Num ber	Mar ket Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	Co mm itm ent	INC_ DEC	Hou rs	Begin Time	End Time			
1	RT	Bridging Schedules	SCE	LA Basin	6/23/2022	10	No	INC	1	23:00	0:00			
2	RT	Bridging Schedules	SCE	LA Basin	6/27/2022	10	No	INC	1	23:00	0:00			
3	RT RT	Bridging Schedules Conditions beyond the control of the CAISO	SDGE SCE	San Diego-IV LA Basin	6/30/2022 6/22/2022	155 172 - 178	No No	INC INC	4	2:00 17:00	6:00 22:00			
5	RT	Fast Start Unit Management	PGAE	Bay Area	6/13/2022	0	No	INC	2	7:15	8:50			
6	RT	Fast Start Unit Management	PGAE	Bay Area	6/15/2022	0	No	INC	2 1	16:20	17:20			
7	RT	Fast Start Unit Management	PGAE	Bay Area	6/24/2022	0	No	INC	1	1:15	2:15			
8	RT	Incomplete or Inaccurate Transmission	PGAE	Bay Area	6/28/2022	80	No	INC	8	15:55	23:00			
9	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	6/1/2022	100	No	DEC	4	19:45	23:00			
10	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	6/2/2022	105	No	DEC	6	18:25	0:00			
11	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	6/28/2022	20 - 42	No	DEC	8	15:10	23:00			
12	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	6/28/2022	42	No	INC	8	15:00	23:00			
13	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	6/29/2022	20 - 45	No	DEC	6	17:00	23:00			
14	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	6/29/2022	20 - 42	No	INC	8	15:00	23:00			
15	RT	Load Forecast Uncertainty	PGAE	Fresno	6/2/2022	100	No	INC	2	7:00	8:15			
16	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	6/9/2022	100	No	INC	9	15:00	0:00			
17	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	6/10/2022	50 - 410	No	INC	11	13:00	0:00			
18	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	6/27/2022	50	No	DEC	9	15:00	0:00			
19	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	6/28/2022	100	No	INC	9	15:00	0:00			
20	RT	Load Forecast Uncertainty	SCE	LA Basin	6/23/2022	20	No	INC	24	0:00	0:00			

	Mar ket						Co mm				
Num	Тур		Locatio	Local Reliability			itm	INC_	Hou	Begin	End
ber	е	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
21	RT	Load Forecast Uncertainty	SCE	LA Basin	6/26/2022	10	No	INC	10	5:00	15:00
22	RT	Load Forecast Uncertainty	SCE	LA Basin	6/27/2022	130	No	DEC	9	15:30	0:00
23	RT	Load Forecast Uncertainty	SCE	LA Basin	6/27/2022	70	No	INC	10	14:00	0:00
24	RT	Load Forecast Uncertainty	SCE	LA Basin	6/28/2022	25842	No	INC	18	6:00	0:00
25	RT	Load Forecast Uncertainty	SCE	LA Basin	6/29/2022	20 - 70	No	INC	24	0:00	0:00
26	RT	Market Disruption	PGAE	Bay Area	6/7/2022	290	No	DEC	1	23:10	23:15
27	RT	Market Disruption	PGAE	Fresno	6/7/2022	83	No	INC	1	23:05	0:00
28	RT	Market Disruption	PGAE	NA	6/7/2022	0 - 305	No	DEC	2	22:50	0:00
29	RT	Market Disruption	PGAE	NA	6/7/2022	0	No	INC	1	23:00	0:00
30	RT	Market Disruption	PGAE	NA	6/8/2022	305	No	DEC	4	0:00	3:15
31	RT	Market Disruption	PGAE	NA	6/8/2022	0	No	INC	3	0:00	2:55
32	RT	Market Disruption	SCE	LA Basin	6/7/2022	0 - 290	No	DEC	1	22:50	23:05
33	RT	Market Disruption	SCE	LA Basin	6/7/2022	0	No	INC	1	23:00	0:00
34	RT	Market Disruption	SCE	LA Basin	6/8/2022	0	No	INC	4	0:00	3:55
35	RT	Market Disruption	SCE	NA	6/23/2022	-200	No	DEC	1	6:35	7:30
36	RT	Market Disruption	SDGE	San Diego-IV	6/7/2022	331	No	DEC	1	22:50	23:05
37	RT	Other Reliability Requirement	PGAE	Fresno	6/4/2022	404	No	INC	1	22:05	22:15
38	RT	Planned Transmission Outage	PGAE	Bay Area	6/1/2022	15	No	INC	13	9:35	22:00
39	RT	Planned Transmission Outage	PGAE	Bay Area	6/3/2022	15	No	INC	7	15:00	22:00
40	RT	Planned Transmission Outage	PGAE	Bay Area	6/5/2022	20	No	INC	3	11:30	14:15
41	RT	Planned Transmission Outage	PGAE	Bay Area	6/11/2022	20	No	INC	4	19:30	22:45
42	RT	Planned Transmission Outage	PGAE	Bay Area	6/23/2022	20	No	DEC	7	14:00	21:00
43	RT	Planned Transmission Outage	PGAE	Bay Area	6/23/2022	20	No	INC	9	13:05	22:00
44	RT	Planned Transmission Outage	PGAE	Bay Area	6/24/2022	20	No	DEC	1	18:40	19:00
45	RT	Planned Transmission Outage	PGAE	Bay Area	6/24/2022	20	No	INC	4	19:00	23:00
46	RT	Planned Transmission Outage	PGAE	Fresno	6/13/2022	83	No	INC	1	4:25	5:00
47	RT	Planned Transmission Outage	PGAE	Fresno	6/27/2022	120 - 250	No	INC	2	22:35	0:00
48	RT	Planned Transmission Outage	PGAE	Fresno	6/28/2022	83 - 320	No	INC	24	0:00	0:00
49	RT	Planned Transmission Outage	PGAE	Fresno	6/29/2022	83	No	INC	3	0:00	3:00

	Mar ket						Co mm				
Num	Тур		Locatio	Local Reliability			itm	INC_	Hou	Begin	End
ber	е	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
50	RT	Planned Transmission Outage	PGAE	Fresno	6/30/2022	83	No	INC	6	0:25	5:45
51	RT	Planned Transmission Outage	PGAE	Humboldt	6/1/2022	30 - 45	No	DEC	4	18:00	22:00
52	RT	Planned Transmission Outage	PGAE	Humboldt	6/1/2022	30 - 60	No	INC	24	0:00	0:00
53	RT	Planned Transmission Outage	PGAE	Humboldt	6/2/2022	30 - 60	No	INC	24	0:00	0:00
54	RT	Planned Transmission Outage	PGAE	Humboldt	6/3/2022	15 - 45	No	INC	24	0:00	0:00
55	RT	Planned Transmission Outage	PGAE	Humboldt	6/4/2022	30	No	DEC	6	13:00	19:00
56	RT	Planned Transmission Outage	PGAE	Humboldt	6/4/2022	15 - 30	No	INC	24	0:00	0:00
57	RT	Planned Transmission Outage	PGAE	Humboldt	6/5/2022	15	No	DEC	23	0:15	23:00
58	RT	Planned Transmission Outage	PGAE	Humboldt	6/5/2022	15 - 30	No	INC	24	0:00	0:00
59	RT	Planned Transmission Outage	PGAE	Humboldt	6/6/2022	15	No	DEC	8	0:00	7:30
60	RT	Planned Transmission Outage	PGAE	Humboldt	6/6/2022	30	No	INC	24	0:00	0:00
61	RT	Planned Transmission Outage	PGAE	Humboldt	6/7/2022	28 - 42	No	INC	24	0:00	0:00
62	RT	Planned Transmission Outage	PGAE	Humboldt	6/8/2022	28 - 48	No	INC	24	0:00	0:00
63	RT	Planned Transmission Outage	PGAE	Humboldt	6/9/2022	28 - 45	No	DEC	6	15:00	21:00
64	RT	Planned Transmission Outage	PGAE	Humboldt	6/9/2022	28 - 45	No	INC	24	0:00	0:00
65	RT	Planned Transmission Outage	PGAE	Humboldt	6/10/2022	15 - 60	No	DEC	10	13:00	22:15
66	RT	Planned Transmission Outage	PGAE	Humboldt	6/10/2022	30 - 60	No	INC	18	0:00	18:00
67	RT	Planned Transmission Outage	PGAE	Humboldt	6/14/2022	30	No	DEC	8	15:00	23:00
68	RT	Planned Transmission Outage	PGAE	Humboldt	6/14/2022	30	No	INC	18	6:30	0:00
69	RT	Planned Transmission Outage	PGAE	Humboldt	6/15/2022	30	No	DEC	4	18:00	22:00
70	RT	Planned Transmission Outage	PGAE	Humboldt	6/15/2022	30	No	INC	24	0:00	0:00
71	RT	Planned Transmission Outage	PGAE	Humboldt	6/16/2022	30 - 45	No	INC	24	0:00	0:00
72	RT	Planned Transmission Outage	PGAE	Humboldt	6/17/2022	30 - 45	No	INC	24	0:00	0:00
73	RT	Planned Transmission Outage	PGAE	Humboldt	6/18/2022	14	No	DEC	5	17:00	21:25
74	RT	Planned Transmission Outage	PGAE	Humboldt	6/18/2022	14 - 45	No	INC	24	0:00	0:00
75	RT	Planned Transmission Outage	PGAE	Humboldt	6/19/2022	14 - 28	No	INC	19	0:00	18:15
76	RT	Planned Transmission Outage	PGAE	Humboldt	6/25/2022	30	No	DEC	4	20:25	0:00
77	RT	Planned Transmission Outage	PGAE	Humboldt	6/25/2022	15	No	INC	1	23:40	0:00
78	RT	Planned Transmission Outage	PGAE	Humboldt	6/26/2022	15 - 45	No	DEC	14	8:00	22:00

Num ber	Mar ket Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	Co mm itm ent	INC_ DEC	Hou	Begin Time	End Time
79	RT	Planned Transmission Outage	PGAE	Humboldt	6/26/2022	15 - 45	No	INC	24	0:00	0:00
80	RT	Planned Transmission Outage	PGAE	Humboldt	6/27/2022	30 - 45	No	DEC	17	7:00	0:00
81	RT	Planned Transmission Outage	PGAE	Humboldt	6/27/2022	15 - 45	No	INC	24	0:00	0:00
82	RT	Planned Transmission Outage	PGAE	Humboldt	6/28/2022	30	No	DEC	22	0:00	22:00
83	RT	Planned Transmission Outage	PGAE	Humboldt	6/28/2022	30 - 45	No	INC	24	0:00	0:00
84	RT	Planned Transmission Outage	PGAE	Humboldt	6/29/2022	30 - 45	No	DEC	4	18:00	22:00
85	RT	Planned Transmission Outage	PGAE	Humboldt	6/29/2022	30 - 45	No	INC	24	0:00	0:00
86	RT	Planned Transmission Outage	PGAE	Humboldt	6/30/2022	30 - 45	No	INC	24	0:00	0:00
87	RT	Planned Transmission Outage	PGAE	Kern	6/1/2022	32 - 52	Yes	INC	6	18:00	0:00
88	RT	Planned Transmission Outage	PGAE	Kern	6/5/2022	47	No	INC	4	20:30	0:00
89	RT	Planned Transmission Outage	PGAE	NCNB	6/18/2022	23590	No	DEC	19	5:00	0:00
90	RT	Planned Transmission Outage	PGAE	NCNB	6/18/2022	15	No	INC	7	8:40	14:45
91	RT	Planned Transmission Outage	PGAE	NCNB	6/19/2022	19633	No	DEC	21	0:00	20:30
92	RT	Planned Transmission Outage	PGAE	Sierra	6/1/2022	47	No	DEC	4	18:45	22:00
93	RT	Planned Transmission Outage	PGAE	Sierra	6/1/2022	20 - 47	No	INC	5	19:00	0:00
94	RT	Planned Transmission Outage	PGAE	Sierra	6/9/2022	20	No	DEC	1	16:45	17:30
95	RT	Planned Transmission Outage	PGAE	Sierra	6/9/2022	20	No	INC	1	16:45	17:30
96	RT	Planned Transmission Outage	PGAE	Stockton	6/13/2022	89	No	INC	3	20:30	23:30
97	RT	Planned Transmission Outage	PGAE	NA	6/2/2022	43 - 45	No	DEC	4	17:30	21:00
98	RT	Planned Transmission Outage	PGAE	NA	6/3/2022	40	No	DEC	5	18:00	23:00
99	RT	Planned Transmission Outage	PGAE	NA	6/3/2022	40	No	INC	7	17:25	0:00
100	RT	Planned Transmission Outage	SCE	Fresno	6/21/2022	75	No	DEC	1	9:50	10:45
101	RT	Planned Transmission Outage	SCE	NA	6/24/2022	0 - 40	No	DEC	3	21:10	0:00
102	RT	Planned Transmission Outage	SCE	NA	6/25/2022	40	No	DEC	17	0:00	17:00
103	RT	Planned Transmission Outage	SDGE	San Diego-IV	6/24/2022	37	No	INC	2	21:55	23:00
104	RT	Planned Transmission Outage	SDGE	San Diego-IV	6/30/2022	290	No	INC	11	6:00	17:00
105	RT	Pump Management	PGAE	Fresno	6/18/2022	-297	No	DEC	1	23:30	0:00
106	RT	Ramping Capacity	PGAE	Bay Area	6/21/2022	555 - 565	No	DEC	3	19:45	22:00
107	RT	Ramping Capacity	PGAE	Bay Area	6/21/2022	590	No	INC	1	18:50	19:45

	Mar ket						Co mm				
Num ber	Тур е	Reason	Locatio n	Local Reliability Area	Trade Date	MW	itm ent	INC_ DEC	Hou rs	Begin Time	End Time
108	RT	Ramping Capacity	PGAE	Kern	6/8/2022	32	No	DEC	6	18:00	0:00
100	RT	Ramping Capacity	PGAE	Kern	6/8/2022	32	No	INC	2	16:00	18:00
110	RT	Ramping Capacity	PGAE	Kern	6/9/2022	32	No	INC	2	0:00	2:00
111	RT	Ramping Capacity	PGAE	NA	6/22/2022	49 - 307	No	DEC	6	16:00	22:00
112	RT	Ramping Capacity	PGAE	NA	6/22/2022	49 - 307	No	INC	3	15:00	18:00
113	RT	Ramping Capacity	SCE	Big Creek-Ventura	6/10/2022	400.1	No	INC	7	15:00	22:00
114	RT	Ramping Capacity	SCE	Big Creek-Ventura	6/28/2022	401	No	INC	4	16:00	20:00
115	RT	Ramping Capacity	SCE	Big Creek-Ventura	6/29/2022	401	No	INC	4	16:00	20:00
116	RT	Ramping Capacity	SCE	LA Basin	6/4/2022	150 - 180	No	INC	3	17:45	20:00
117	RT	Ramping Capacity	SCE	LA Basin	6/10/2022	65 - 194	No	INC	8	14:00	22:00
118	RT	Ramping Capacity	SCE	LA Basin	6/11/2022	190 - 194	No	INC	3	17:30	20:00
119	RT	Ramping Capacity	SCE	LA Basin	6/21/2022	194	No	INC	6	16:00	22:00
120	RT	Ramping Capacity	SCE	LA Basin	6/22/2022	194	No	DEC	4	17:00	21:00
121	RT	Ramping Capacity	SCE	LA Basin	6/22/2022	65 - 194	No	INC	8	14:00	22:00
122	RT	Ramping Capacity	SCE	LA Basin	6/23/2022	190	No	DEC	3	18:00	21:00
123	RT	Ramping Capacity	SCE	LA Basin	6/23/2022	65 - 194	No	INC	7	15:00	22:00
124	RT	Ramping Capacity	SCE	LA Basin	6/27/2022	240	No	DEC	4	18:15	22:00
125	RT	Ramping Capacity	SCE	LA Basin	6/27/2022	240	No	INC	4	18:15	22:00
126	RT	Ramping Capacity	SCE	LA Basin	6/28/2022	65 - 241	No	INC	4	16:00	20:00
127	RT	Ramping Capacity	SCE	LA Basin	6/29/2022	65 - 241	No	INC	4	16:00	20:00
128	RT	Ramping Capacity	SCE	LA Basin	6/30/2022	190 - 194	No	INC	7	16:55	23:00
129	RT	Reliability Assessment	PGAE	Bay Area	6/6/2022	22	No	INC	4	19:20	23:00
130	RT	Reliability Assessment	PGAE	Bay Area	6/13/2022	190	No	INC	3	2:55	5:00
131	RT	Reliability Assessment	PGAE	Bay Area	6/21/2022	120	No	INC	5	19:40	0:00
132	RT	Reliability Assessment	PGAE	Bay Area	6/22/2022	60	No	DEC	5	16:00	21:00
133	RT	Reliability Assessment	PGAE	Bay Area	6/22/2022	60 - 120	No	INC	23	0:00	23:00
134	RT	Reliability Assessment	PGAE	Fresno	6/13/2022	83	No	INC	2	2:55	4:45
135	RT	Reliability Assessment	PGAE	Fresno	6/14/2022	65 - 80	No	DEC	9	9:25	18:00
136	RT	Reliability Assessment	PGAE	Fresno	6/14/2022	65	No	INC	2	18:00	20:00

Num Ty ber e 137 R ⁻ 138 R ⁻	-						mm				
137 R	-		Locatio	Local Reliability	Trade Data	BALA/	itm	INC_	Hou	Begin	End
	21 1	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
1.20 0		Reliability Assessment	PGAE	Fresno	6/16/2022	30 - 45	No	INC	5	8:20	13:00
		Reliability Assessment	PGAE	Fresno	6/21/2022	0	No	DEC	2	17:25	19:00
139 R		Reliability Assessment	PGAE	Fresno	6/22/2022	50	No	DEC	6	16:20	22:00
140 R		Reliability Assessment	PGAE	Fresno	6/24/2022	0	No	DEC	2	15:40	17:00
141 R		Reliability Assessment	PGAE	Fresno	6/26/2022	150	No	INC	2	22:10	0:00
142 R	RT	Reliability Assessment	PGAE	Fresno	6/27/2022	150	No	INC	2	0:00	2:00
143 R	RT	Reliability Assessment	PGAE	Fresno	6/30/2022	85	No	INC	1	23:55	0:00
144 R	RT	Reliability Assessment	PGAE	Humboldt	6/10/2022	15 - 45	No	DEC	2	22:00	0:00
145 R	RT	Reliability Assessment	PGAE	Humboldt	6/10/2022	45	No	INC	1	23:00	0:00
146 R	RΤ	Reliability Assessment	PGAE	Humboldt	6/11/2022	15 - 16	No	DEC	24	0:00	0:00
147 R	RT	Reliability Assessment	PGAE	Humboldt	6/11/2022	16 - 45	No	INC	24	0:00	0:00
148 R	RΤ	Reliability Assessment	PGAE	Humboldt	6/12/2022	16	No	DEC	24	0:00	0:00
149 R	RT	Reliability Assessment	PGAE	Humboldt	6/12/2022	16	No	INC	10	0:00	10:00
150 R	RT	Reliability Assessment	PGAE	Humboldt	6/13/2022	16	No	DEC	8	0:00	7:35
151 R	RT	Reliability Assessment	PGAE	Humboldt	6/13/2022	30	No	INC	17	7:35	0:00
152 R	RΤ	Reliability Assessment	PGAE	Humboldt	6/14/2022	30	No	INC	7	0:00	7:00
153 R	RΤ	Reliability Assessment	PGAE	Humboldt	6/19/2022	14	No	DEC	5	19:45	0:00
154 R	RΤ	Reliability Assessment	PGAE	Humboldt	6/19/2022	14 - 28	No	INC	7	17:50	0:00
155 R	RΤ	Reliability Assessment	PGAE	Humboldt	6/20/2022	14 - 30	No	DEC	22	0:00	22:00
156 R	RΤ	Reliability Assessment	PGAE	Humboldt	6/20/2022	14 - 70	No	INC	24	0:00	0:00
157 R	RΤ	Reliability Assessment	PGAE	Humboldt	6/21/2022	30	No	DEC	11	12:00	23:00
158 R	RT	Reliability Assessment	PGAE	Humboldt	6/21/2022	30	No	INC	24	0:00	0:00
159 R	RT	Reliability Assessment	PGAE	Humboldt	6/22/2022	15 - 30	No	DEC	11	12:55	23:00
160 R	RT	Reliability Assessment	PGAE	Humboldt	6/22/2022	15 - 30	No	INC	24	0:00	0:00
161 R		Reliability Assessment	PGAE	Humboldt	6/23/2022	28	No	DEC	7	15:00	22:00
162 R		Reliability Assessment	PGAE	Humboldt	6/23/2022	28 - 30	No	INC	24	0:00	0:00
163 R		Reliability Assessment	PGAE	Humboldt	6/24/2022	30	No	DEC	11	12:00	23:00
164 R		Reliability Assessment	PGAE	Humboldt	6/24/2022	30	No	INC	24	0:00	0:00
165 R		Reliability Assessment	PGAE	Humboldt	6/25/2022	30	No	DEC	10	12:00	22:00

Num ber	Mar ket Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	Co mm itm ent	INC_ DEC	Hou	Begin Time	End Time
166	RT	Reliability Assessment	PGAE	Humboldt	6/25/2022	30	No	INC	24	0:00	0:00
167	RT	Reliability Assessment	PGAE	Humboldt	6/26/2022	45	No	DEC	1	21:50	22:00
168	RT	Reliability Assessment	PGAE	Humboldt	6/26/2022	45	No	INC	1	22:00	23:00
169	RT	Reliability Assessment	PGAE	Kern	6/2/2022	32 - 47	Yes	INC	8	16:00	0:00
170	RT	Reliability Assessment	PGAE	Kern	6/3/2022	32 - 47	Yes	INC	24	0:00	0:00
171	RT	Reliability Assessment	PGAE	Kern	6/4/2022	32 - 47	Yes	INC	23	0:00	23:00
172	RT	Reliability Assessment	PGAE	Kern	6/5/2022	32	No	INC	6	17:00	23:00
173	RT	Reliability Assessment	PGAE	Kern	6/6/2022	20 - 50	No	INC	7	17:00	0:00
174	RT	Reliability Assessment	PGAE	Kern	6/7/2022	32	No	DEC	4	18:00	22:00
175	RT	Reliability Assessment	PGAE	Kern	6/7/2022	20 - 47	No	INC	24	0:00	0:00
176	RT	Reliability Assessment	PGAE	Kern	6/8/2022	32 - 47	No	DEC	5	18:00	23:00
177	RT	Reliability Assessment	PGAE	Kern	6/8/2022	32 - 47	No	INC	24	0:00	0:00
178	RT	Reliability Assessment	PGAE	Kern	6/9/2022	32 - 52	Yes	INC	24	0:00	0:00
179	RT	Reliability Assessment	PGAE	Kern	6/10/2022	32 - 47	No	DEC	8	16:00	0:00
180	RT	Reliability Assessment	PGAE	Kern	6/10/2022	32 - 52	No	INC	24	0:00	0:00
181	RT	Reliability Assessment	PGAE	Kern	6/11/2022	23 - 49	No	DEC	6	16:00	22:00
182	RT	Reliability Assessment	PGAE	Kern	6/11/2022	23 - 49	No	INC	24	0:00	0:00
183	RT	Reliability Assessment	PGAE	Kern	6/12/2022	32	No	DEC	3	19:00	22:00
184	RT	Reliability Assessment	PGAE	Kern	6/12/2022	23 - 49	Yes	INC	24	0:00	0:00
185	RT	Reliability Assessment	PGAE	Kern	6/13/2022	23 - 47	Yes	INC	23	0:00	23:00
186	RT	Reliability Assessment	PGAE	Kern	6/14/2022	20 - 47	No	INC	9	15:00	0:00
187	RT	Reliability Assessment	PGAE	Kern	6/15/2022	47	No	DEC	3	19:00	22:00
188	RT	Reliability Assessment	PGAE	Kern	6/15/2022	17288	No	INC	24	0:15	0:00
189	RT	Reliability Assessment	PGAE	Kern	6/16/2022	32 - 47	Yes	INC	24	0:00	0:00
190	RT	Reliability Assessment	PGAE	Kern	6/17/2022	47	No	DEC	3	19:00	22:00
191	RT	Reliability Assessment	PGAE	Kern	6/17/2022	20 - 49	No	INC	8	16:00	0:00
192	RT	Reliability Assessment	PGAE	Kern	6/18/2022	47	No	INC	4	18:00	22:00
193	RT	Reliability Assessment	PGAE	Kern	6/19/2022	47 - 49	No	INC	4	18:00	22:00
194	RT	Reliability Assessment	PGAE	Kern	6/21/2022	32	No	DEC	5	12:00	17:00

Num ber	Mar ket Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	Co mm itm ent	INC_ DEC	Hou	Begin Time	End Time
195	RT	Reliability Assessment	PGAE	Kern	6/21/2022	20 - 32	No	INC	8	10:00	18:00
196	RT	Reliability Assessment	PGAE	Kern	6/23/2022	32	No	DEC	2	20:40	22:00
197	RT	Reliability Assessment	PGAE	Kern	6/24/2022	32	No	INC	6	18:00	0:00
198	RT	Reliability Assessment	PGAE	Kern	6/25/2022	20 - 47	No	INC	24	0:00	0:00
199	RT	Reliability Assessment	PGAE	Kern	6/26/2022	32	No	DEC	6	16:00	22:00
200	RT	Reliability Assessment	PGAE	Kern	6/26/2022	20 - 51	No	INC	24	0:00	0:00
201	RT	Reliability Assessment	PGAE	Kern	6/27/2022	32 - 51	No	INC	24	0:00	0:00
202	RT	Reliability Assessment	PGAE	Kern	6/28/2022	47 - 52	No	INC	24	0:00	0:00
203	RT	Reliability Assessment	PGAE	Kern	6/29/2022	48 - 52	No	INC	9	15:00	0:00
204	RT	Reliability Assessment	PGAE	Kern	6/30/2022	24 - 45	No	INC	4	16:00	19:45
205	RT	Reliability Assessment	PGAE	NCNB	6/9/2022	45 - 60	No	DEC	7	17:10	0:00
206	RT	Reliability Assessment	PGAE	NCNB	6/10/2022	45 - 70	No	DEC	24	0:00	0:00
207	RT	Reliability Assessment	PGAE	NCNB	6/10/2022	68 - 70	No	INC	7	16:00	23:00
208	RT	Reliability Assessment	PGAE	NCNB	6/11/2022	58 - 70	No	DEC	24	0:00	0:00
209	RT	Reliability Assessment	PGAE	NCNB	6/12/2022	65 - 70	No	DEC	3	0:00	2:30
210	RT	Reliability Assessment	PGAE	NCNB	6/13/2022	65	No	DEC	2	22:00	23:30
211	RT	Reliability Assessment	PGAE	NCNB	6/14/2022	65	No	DEC	3	0:05	3:00
212	RT	Reliability Assessment	PGAE	NCNB	6/21/2022	66 - 75	No	DEC	7	17:20	0:00
213	RT	Reliability Assessment	PGAE	NCNB	6/22/2022	66 - 75	No	DEC	5	0:00	4:30
214	RT	Reliability Assessment	PGAE	NCNB	6/22/2022	75	No	INC	1	4:00	4:30
215	RT	Reliability Assessment	PGAE	Sierra	6/2/2022	40 - 42	No	INC	4	18:00	22:00
216	RT	Reliability Assessment	PGAE	Sierra	6/3/2022	42	Yes	INC	4	18:00	22:00
217	RT	Reliability Assessment	PGAE	Sierra	6/6/2022	20	No	DEC	4	18:00	22:00
218	RT	Reliability Assessment	PGAE	Sierra	6/6/2022	20	No	INC	1	17:35	18:00
219	RT	Reliability Assessment	PGAE	Sierra	6/7/2022	20	No	DEC	3	18:00	21:00
220	RT	Reliability Assessment	PGAE	Sierra	6/7/2022	20	No	INC	1	17:30	18:00
221	RT	Reliability Assessment	PGAE	Sierra	6/8/2022	20	Yes	DEC	3	18:00	21:00
222	RT	Reliability Assessment	PGAE	Sierra	6/8/2022	20 - 42	No	INC	7	16:00	23:00
223	RT	Reliability Assessment	PGAE	Sierra	6/9/2022	20	No	DEC	6	17:10	23:00

Num ber	Mar ket Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	Co mm itm ent	INC_ DEC	Hou	Begin Time	End Time
224	RT	Reliability Assessment	PGAE	Sierra	6/9/2022	20 - 42	No	INC	7	17:10	0:00
224	RT	Reliability Assessment	PGAE	Sierra	6/10/2022	20-42	No	DEC	6	16:00	22:00
226	RT	Reliability Assessment	PGAE	Sierra	6/10/2022	20 - 42	No	INC	12	12:15	0:00
220	RT	Reliability Assessment	PGAE	Sierra	6/11/2022	20-42	No	DEC	5	18:00	23:00
228	RT	Reliability Assessment	PGAE	Sierra	6/11/2022	20 - 42	No	INC	24	0:00	0:00
229	RT	Reliability Assessment	PGAE	Sierra	6/12/2022	20 42	No	INC	5	0:00	4:45
230	RT	Reliability Assessment	PGAE	Sierra	6/12/2022	42	No	INC	4	18:40	22:00
231	RT	Reliability Assessment	PGAE	Sierra	6/16/2022	20	Yes	DEC	4	18:00	22:00
232	RT	Reliability Assessment	PGAE	Sierra	6/16/2022	20	Yes	INC	1	22:00	23:00
233	RT	Reliability Assessment	PGAE	Sierra	6/21/2022	20	No	INC	2	15:45	17:00
234	RT	Reliability Assessment	PGAE	Sierra	6/22/2022	20	No	DEC	2	19:00	21:00
235	RT	Reliability Assessment	PGAE	Sierra	6/22/2022	20 - 48	No	INC	12	12:15	0:00
236	RT	Reliability Assessment	PGAE	Sierra	6/23/2022	40	No	DEC	4	18:00	22:00
237	RT	Reliability Assessment	PGAE	Sierra	6/23/2022	20 - 42	No	INC	12	11:55	23:00
238	RT	Reliability Assessment	PGAE	Sierra	6/24/2022	20	No	DEC	2	19:00	21:00
239	RT	Reliability Assessment	PGAE	Sierra	6/24/2022	15615	No	INC	11	13:50	0:00
240	RT	Reliability Assessment	PGAE	Sierra	6/25/2022	0 - 47	No	DEC	6	16:00	22:00
241	RT	Reliability Assessment	PGAE	Sierra	6/25/2022	20 - 47	Yes	INC	24	0:00	0:00
242	RT	Reliability Assessment	PGAE	Sierra	6/26/2022	20 - 47	No	DEC	6	16:00	22:00
243	RT	Reliability Assessment	PGAE	Sierra	6/26/2022	20 - 47	No	INC	24	0:00	0:00
244	RT	Reliability Assessment	PGAE	Sierra	6/27/2022	20 - 42	Yes	DEC	4	18:00	22:00
245	RT	Reliability Assessment	PGAE	Sierra	6/27/2022	20 - 47	Yes	INC	23	0:00	23:00
246	RT	Reliability Assessment	PGAE	Sierra	6/29/2022	20 - 38	No	DEC	3	20:00	23:00
247	RT	Reliability Assessment	PGAE	Sierra	6/29/2022	20 - 38	No	INC	6	18:15	0:00
248	RT	Reliability Assessment	PGAE	Sierra	6/30/2022	20	No	DEC	5	18:00	23:00
249	RT	Reliability Assessment	PGAE	Sierra	6/30/2022	20 - 42	Yes	INC	24	0:00	0:00
250	RT	Reliability Assessment	PGAE	Stockton	6/13/2022	191.2	No	INC	6	3:05	9:00
251	RT	Reliability Assessment	PGAE	Stockton	6/22/2022	20	No	INC	9	12:35	21:00
252	RT	Reliability Assessment	PGAE	NA	6/4/2022	0	No	DEC	1	9:10	9:45

Num ber	Mar ket Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	Co mm itm ent	INC_ DEC	Hou rs	Begin Time	End Time
253	RT	Reliability Assessment	PGAE	NA	6/9/2022	32	No	DEC	6	18:00	0:00
254	RT	Reliability Assessment	PGAE	NA	6/9/2022	34 - 48	No	INC	7	17:00	0:00
255	RT	Reliability Assessment	PGAE	NA	6/10/2022	32	No	DEC	22	0:00	22:00
256	RT	Reliability Assessment	PGAE	NA	6/10/2022	32 - 48	No	INC	24	0:00	0:00
257	RT	Reliability Assessment	PGAE	NA	6/11/2022	32 - 46	Yes	INC	24	0:00	0:00
258	RT	Reliability Assessment	PGAE	NA	6/12/2022	45 - 46	Yes	INC	24	0:00	0:00
259	RT	Reliability Assessment	PGAE	NA	6/13/2022	45	No	INC	2	0:00	2:00
260	RT	Reliability Assessment	PGAE	NA	6/16/2022	32	Yes	INC	8	16:00	0:00
261	RT	Reliability Assessment	PGAE	NA	6/17/2022	32	Yes	INC	8	16:00	0:00
262	RT	Reliability Assessment	PGAE	NA	6/21/2022	90	No	INC	1	15:45	16:45
263	RT	Reliability Assessment	PGAE	NA	6/28/2022	47 - 48	Yes	INC	9	15:00	0:00
264	RT	Reliability Assessment	PGAE	NA	6/29/2022	48	No	INC	9	15:00	0:00
265	RT	Reliability Assessment	PGAE	NA	6/30/2022	45	No	INC	3	17:00	19:45
266	RT	Reliability Assessment	SCE	Big Creek-Ventura	6/13/2022	0	No	INC	2	20:10	21:15
267	RT	Reliability Assessment	SDGE	San Diego-IV	6/22/2022	0	No	INC	1	3:10	4:00
268	RT	Reliability Assessment	SDGE	San Diego-IV	6/26/2022	0	No	INC	1	4:55	5:45
269	RT	Reverse Commitment Instruction	PGAE	Kern	6/22/2022	0	No	INC	8	16:55	0:00
270	RT	Software Limitation	PGAE	Fresno	6/13/2022	66	No	INC	2	22:30	0:00
271	RT	Software Limitation	PGAE	Fresno	6/14/2022	66 - 92	No	INC	3	0:00	3:00
272	RT	Software Limitation	PGAE	Fresno	6/15/2022	83	No	INC	1	23:45	0:00
273	RT	Software Limitation	PGAE	Fresno	6/16/2022	83	No	INC	1	0:00	0:15
274	RT	Software Limitation	PGAE	Fresno	6/22/2022	83	No	DEC	1	19:15	19:30
275	RT	Software Limitation	PGAE	Fresno	6/22/2022	83 - 400	No	INC	4	6:10	9:30
276	RT	Software Limitation	PGAE	Kern	6/3/2022	0	No	INC	3	11:00	13:55
277	RT	Software Limitation	PGAE	Sierra	6/14/2022	40	No	INC	1	1:00	2:00
278	RT	Software Limitation	PGAE	Stockton	6/14/2022	40	No	INC	1	1:00	2:00
279	RT	Software Limitation	PGAE	NA	6/15/2022	460	No	DEC	1	0:10	1:00
280	RT	Software Limitation	SCE	Big Creek-Ventura	6/14/2022	0	No	DEC	3	3:00	6:00
281	RT	Software Limitation	SCE	Big Creek-Ventura	6/27/2022	0	No	DEC	15	0:00	15:00

	Mar ket						Co mm				
Num	Тур		Locatio	Local Reliability			itm	INC_	Hou	Begin	End
ber	е	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
282	RT	Software Limitation	SCE	Big Creek-Ventura	6/27/2022	0	No	INC	10	14:00	0:00
283	RT	Software Limitation	SCE	LA Basin	6/4/2022	5 - 97.32	No	INC	1	22:05	22:55
284	RT	Software Limitation	SCE	LA Basin	6/5/2022	0	No	INC	1	0:20	1:00
285	RT	Software Limitation	SCE	LA Basin	6/22/2022	100	No	INC	3	6:10	8:45
286	RT	Software Limitation	SCE	LA Basin	6/27/2022	0	No	DEC	16	0:00	15:30
287	RT	Software Limitation	SCE	NA	6/13/2022	0 - 3	No	DEC	2	22:45	0:00
288	RT	Software Limitation	SCE	NA	6/13/2022	70	No	INC	2	22:55	0:00
289	RT	Software Limitation	SCE	NA	6/14/2022	0 - 3	No	DEC	3	0:00	3:00
290	RT	Software Limitation	SCE	NA	6/14/2022	70	No	INC	3	0:00	3:00
291	RT	Software Limitation	SDGE	San Diego-IV	6/7/2022	331	No	DEC	1	23:45	0:00
292	RT	Software Limitation	SDGE	San Diego-IV	6/8/2022	331	No	DEC	4	0:00	3:15
293	RT	Unit Testing	Intertie	NA	6/23/2022	20	No	INC	14	5:00	19:00
294	RT	Unit Testing	Intertie	NA	6/24/2022	20	No	INC	15	5:00	20:00
295	RT	Unit Testing	Intertie	NA	6/25/2022	20	No	INC	15	5:00	20:00
296	RT	Unit Testing	Intertie	NA	6/27/2022	20	No	INC	15	5:00	20:00
297	RT	Unit Testing	Intertie	NA	6/28/2022	20	No	INC	14	5:00	19:00
298	RT	Unit Testing	Intertie	NA	6/29/2022	20	No	INC	14	5:00	19:00
299	RT	Unit Testing	Intertie	NA	6/30/2022	20	No	INC	14	5:00	19:00
300	RT	Unit Testing	PGAE	Bay Area	6/1/2022	250	No	INC	5	19:55	0:00
301	RT	Unit Testing	PGAE	Bay Area	6/2/2022	250	No	INC	3	21:10	23:15
302	RT	Unit Testing	PGAE	Bay Area	6/7/2022	605	No	INC	2	21:55	23:30
303	RT	Unit Testing	PGAE	Bay Area	6/28/2022	510	No	INC	1	23:05	0:00
304	RT	Unit Testing	PGAE	Bay Area	6/29/2022	510	No	INC	1	0:00	0:45
305	RT	Unit Testing	PGAE	Fresno	6/3/2022	407	No	INC	1	20:15	21:00
306	RT	Unit Testing	SCE	LA Basin	6/2/2022	44854	No	INC	5	19:00	0:00
307	RT	Unit Testing	SCE	LA Basin	6/3/2022	25842	No	INC	24	0:00	0:00
308	RT	Unit Testing	SCE	LA Basin	6/4/2022	10 - 480	No	INC	24	0:00	0:00
309	RT	Unit Testing	SCE	LA Basin	6/23/2022	26	No	INC	1	20:10	20:55
310	RT	Unit Testing	SCE	NA	6/8/2022	80	No	INC	1	20:30	21:00

Num ber	Mar ket Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	Co mm itm ent	INC_ DEC	Hou rs	Begin Time	End Time
311	RT	Unit Testing	SCE	NA	6/30/2022	-36	No	DEC	1	9:25	10:10
312	RT	Unit Testing	SDGE	San Diego-IV	6/12/2022	235	No	INC	1	23:00	0:00
313	RT	Unplanned Outage	PGAE	NCNB	6/16/2022	44 - 63	No	DEC	15	5:55	20:00
314	RT	Unplanned Outage	PGAE	NA	6/16/2022	48	No	INC	2	6:00	7:15
315	RT	Voltage Support	PGAE	Humboldt	6/23/2022	15	No	DEC	1	22:55	23:00
316	RT	Voltage Support	PGAE	Humboldt	6/23/2022	30 - 45	No	INC	1	23:00	0:00
317	RT	Voltage Support	PGAE	Humboldt	6/24/2022	30 - 45	No	INC	4	0:00	3:30
318	RT	Voltage Support	PGAE	Sierra	6/20/2022	20	No	DEC	1	21:30	22:00
319	RT	Voltage Support	PGAE	NA	6/26/2022	0.15	No	INC	18	6:00	0:00
320	RT	Voltage Support	PGAE	NA	6/27/2022	0.15	No	INC	18	0:00	18:00

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 CAISO 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 CAISO 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. Here the dispatch levels are all at minimum load.

Date	Market	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch Level (MW)	Reason
01-Jul-09	DA	А	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

Table 2: Instructions Prior to Day-Ahead Market

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. 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 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.

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

Table 3: FERC Summary of Instructions Prior to DAM

Example 2: Incremental Exceptional Dispatch Instructions in RTM

In this fictitious example, the CAISO 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 had no day-ahead award in those hours. The CAISO 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.

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	А	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

Table 4: Incremental Exceptional Dispatch Instructions in RTM

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. 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 hours between the begin time and end time where there were no exceptional dispatch instructions for the given reason.

Table 5: FERC Summary of E	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 CAISO 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 CAISO issued additional exceptional dispatch instructions for resources B and C; details of those instructions are shown in Table 6.

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	А	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

 Table 6: Decremental Exceptional Dispatch Instructions in RTM

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. 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