



Exceptional Dispatch Report

Table 1: August 2021

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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 August 2021.

The Nature of Exceptional Dispatch

The CAISO can issue exceptional dispatch instructions for a resource as a pre-day-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 August 2021 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

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: <http://www.caiso.com/thegrid/operations/opsdoc/index.html>

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 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 August 2021, 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 325 exceptional dispatches in August 2021, as compared to 395 exceptional dispatches in July 2021. Exceptional dispatches issued for the following reasons accounted for approximately 82 percent of the total exceptional dispatches during the reporting period: planned transmission

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.

outages, incomplete or inaccurate transmission, reliability assessment, ramping capacity, and load forecast uncertainty. Exceptional dispatches with the reason “Reliability Assessment” were due to Real Time Contingency Analysis, Voltage Stability Analysis, and operating procedure number 7110 (along with 7230, 7430, 7450, 7690, and 7720). 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) ⁴ The operator procedure 2330C - <http://www.caiso.com/Documents/2330C.pdf>

Table 1: Exceptional Dispatches in August 2021

**California Independent System Operator Corporation
Exceptional Dispatch Report
October 15, 2021**

Chart 1: Table of Exceptional Dispatches for Period 01/August/2021 - 31/August/2021

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
1	RT	Bridging Schedules	PGAE	NA	8/17/2021	62 - 65	No	INC	7	17:00	0:00
2	RT	Bridging Schedules	SCE	Big Creek-Ventura	8/2/2021	50	No	INC	2	22:00	0:00
3	RT	Bridging Schedules	SCE	Big Creek-Ventura	8/3/2021	50 - 100	No	INC	24	0:00	0:00
4	RT	Bridging Schedules	SCE	Big Creek-Ventura	8/4/2021	50 - 100	No	INC	24	0:00	0:00
5	RT	Bridging Schedules	SCE	LA Basin	8/1/2021	10	No	INC	1	23:00	0:00
6	RT	Bridging Schedules	SCE	LA Basin	8/2/2021	10 - 130	Yes	INC	2	22:00	0:00
7	RT	Bridging Schedules	SCE	LA Basin	8/3/2021	20	No	INC	10	2:00	12:00
8	RT	Bridging Schedules	SCE	LA Basin	8/17/2021	98	No	INC	1	23:00	0:00
9	RT	Conditions beyond the control of the CAISO	PGAE	Humboldt	8/1/2021	0 - 28	No	DEC	4	18:40	22:30
10	RT	Conditions beyond the control of the CAISO	PGAE	Humboldt	8/1/2021	84	No	INC	4	18:50	22:30
11	RT	Conditions beyond the control of the CAISO	SCE	Big Creek-Ventura	8/6/2021	410	No	INC	2	14:25	15:30
12	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	8/6/2021	65 - 240	No	INC	2	14:25	15:30
13	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	8/8/2021	132.76	No	INC	4	7:00	10:45
14	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	8/26/2021	98	No	INC	24	0:00	0:00
15	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	8/27/2021	98	No	INC	24	0:00	0:00
16	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	8/28/2021	98	No	INC	24	0:00	0:00
17	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	8/29/2021	98	No	INC	13	0:00	13:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
18	RT	Fast Start Unit Management	SCE	LA Basin	8/2/2021	0	No	INC	1	11:20	11:45
19	RT	Fast Start Unit Management	SCE	LA Basin	8/14/2021	0	No	INC	3	14:20	17:00
20	RT	Gas Limitations	SDGE	San Diego-IV	8/16/2021	155 - 263	No	DEC	12	0:05	12:00
21	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/12/2021	30 - 75	No	INC	6	18:45	0:00
22	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/13/2021	30 - 60	No	INC	24	0:00	0:00
23	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/14/2021	30 - 45	No	DEC	20	3:15	23:00
24	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/14/2021	42 - 45	No	INC	24	0:00	0:00
25	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/15/2021	30 - 45	No	DEC	24	0:00	0:00
26	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/15/2021	45	No	INC	24	0:00	0:00
27	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/16/2021	30 - 65	No	DEC	23	0:00	23:00
28	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/16/2021	45 - 60	No	INC	24	0:00	0:00
29	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/17/2021	32 - 47	No	DEC	23	0:00	23:00
30	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/17/2021	42 - 60	No	INC	24	0:00	0:00
31	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/18/2021	30	No	DEC	5	2:00	6:25
32	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/18/2021	42 - 60	No	INC	24	0:00	0:00
33	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/19/2021	32 - 58	No	DEC	1	15:00	16:00
34	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/19/2021	32 - 58	No	INC	24	0:00	0:00
35	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/20/2021	30 - 60	No	INC	24	0:00	0:00
36	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/21/2021	30 - 45	No	INC	24	0:00	0:00
37	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/22/2021	30 - 45	No	INC	24	0:00	0:00
38	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/23/2021	30 - 60	No	INC	24	0:00	0:00
39	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/24/2021	30 - 65	No	INC	24	0:00	0:00
40	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/25/2021	30 - 42	No	DEC	5	16:00	21:00
41	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/25/2021	30 - 60	No	INC	24	0:00	0:00
42	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/26/2021	30 - 45	No	DEC	8	14:00	22:00
43	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/26/2021	28 - 45	No	INC	14	0:00	14:00
44	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/27/2021	30 - 45	No	DEC	22	2:45	0:00
45	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/27/2021	30 - 45	No	INC	22	2:45	0:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
46	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/28/2021	30 - 45	No	DEC	22	0:00	22:00
47	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/28/2021	30 - 45	No	INC	20	4:00	0:00
48	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/29/2021	30 - 45	No	DEC	13	9:00	22:00
49	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/29/2021	30 - 45	No	INC	24	0:00	0:00
50	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/30/2021	30 - 45	No	DEC	23	0:00	23:00
51	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/30/2021	30 - 45	No	INC	24	0:00	0:00
52	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/31/2021	30 - 45	No	DEC	12	11:00	23:00
53	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	8/31/2021	30 - 45	No	INC	24	0:00	0:00
54	RT	Incomplete or Inaccurate Transmission	PGAE	NCNB	8/15/2021	35	No	DEC	4	6:45	10:00
55	RT	Incomplete or Inaccurate Transmission	PGAE	NCNB	8/15/2021	35 - 70	No	INC	9	0:30	9:00
56	RT	Incomplete or Inaccurate Transmission	PGAE	NCNB	8/18/2021	45 - 60	No	DEC	8	13:55	21:00
57	RT	Incomplete or Inaccurate Transmission	PGAE	NCNB	8/18/2021	55 - 65	No	INC	4	20:15	0:00
58	RT	Incomplete or Inaccurate Transmission	PGAE	NCNB	8/19/2021	55 - 72	No	DEC	13	2:00	15:00
59	RT	Incomplete or Inaccurate Transmission	PGAE	NCNB	8/19/2021	55 - 63	No	INC	8	0:00	8:00
60	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	8/5/2021	20	No	DEC	2	17:40	19:00
61	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	8/14/2021	20	No	DEC	4	18:40	22:00
62	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	8/14/2021	20	No	INC	2	22:00	0:00
63	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	8/16/2021	20	No	DEC	6	16:10	22:00
64	RT	Incomplete or Inaccurate Transmission	PGAE	Stockton	8/16/2021	30 - 40	No	INC	7	15:55	22:00
65	RT	Incomplete or Inaccurate Transmission	PGAE	NA	8/30/2021	0	No	DEC	1	18:20	19:00
66	RT	Incomplete or Inaccurate Transmission	PGAE	NA	8/30/2021	0	No	INC	4	19:00	22:30
67	RT	Incomplete or Inaccurate Transmission	SCE	NA	8/10/2021	420	No	INC	3	21:35	0:00
68	RT	Incomplete or Inaccurate Transmission	SCE	NA	8/14/2021	440	No	DEC	4	17:30	21:00
69	RT	Incomplete or Inaccurate Transmission	SCE	NA	8/14/2021	440	No	INC	1	21:00	22:00
70	RT	Incomplete or Inaccurate Transmission	SCE	NA	8/15/2021	400 - 440	No	DEC	7	17:20	0:00
71	RT	Incomplete or Inaccurate Transmission	SCE	NA	8/15/2021	440	No	INC	1	21:00	21:30
72	RT	Incomplete or Inaccurate Transmission	SCE	NA	8/16/2021	380 - 400	No	DEC	2	0:00	2:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
73	RT	Load Forecast Uncertainty	Intertie	NA	8/11/2021	127	No	INC	1	18:00	19:00
74	RT	Load Forecast Uncertainty	PGAE	Bay Area	8/11/2021	23.6	No	DEC	5	17:00	22:00
75	RT	Load Forecast Uncertainty	PGAE	Bay Area	8/12/2021	350	No	INC	8	14:30	22:00
76	RT	Load Forecast Uncertainty	PGAE	Bay Area	8/16/2021	20 - 24	No	DEC	5	17:00	22:00
77	RT	Load Forecast Uncertainty	PGAE	Bay Area	8/16/2021	20 - 120	No	INC	7	15:00	22:00
78	RT	Load Forecast Uncertainty	PGAE	Fresno	8/14/2021	83	No	INC	22	0:30	22:00
79	RT	Load Forecast Uncertainty	PGAE	Sierra	8/16/2021	40	No	INC	3	16:00	19:00
80	RT	Load Forecast Uncertainty	PGAE	NA	8/16/2021	62	No	DEC	7	17:00	0:00
81	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/1/2021	50	No	INC	24	0:00	0:00
82	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/5/2021	100 - 675	No	INC	24	0:00	0:00
83	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/6/2021	100	No	INC	24	0:00	0:00
84	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/9/2021	50	No	INC	12	12:00	0:00
85	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/10/2021	50	No	INC	2	22:00	0:00
86	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/11/2021	741	No	DEC	2	17:00	19:00
87	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/11/2021	50 - 741	No	INC	22	0:00	22:00
88	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/12/2021	50 - 500	No	INC	7	17:00	0:00
89	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/13/2021	50 - 100	No	INC	24	0:00	0:00
90	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/14/2021	50 - 100	No	INC	24	0:00	0:00
91	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/15/2021	50	No	INC	15	0:00	15:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
92	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/16/2021	50	No	INC	14	0:00	14:00
93	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/26/2021	50	No	INC	14	10:00	0:00
94	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/27/2021	50	No	INC	14	10:00	0:00
95	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/28/2021	50	No	INC	24	0:00	0:00
96	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/29/2021	50	No	INC	2	22:00	0:00
97	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/30/2021	50	No	INC	24	0:00	0:00
98	RT	Load Forecast Uncertainty	SCE	LA Basin	8/1/2021	70 - 130	No	INC	24	0:00	0:00
99	RT	Load Forecast Uncertainty	SCE	LA Basin	8/5/2021	130	No	DEC	2	0:00	2:00
100	RT	Load Forecast Uncertainty	SCE	LA Basin	8/5/2021	130	No	INC	22	2:00	0:00
101	RT	Load Forecast Uncertainty	SCE	LA Basin	8/6/2021	130	No	INC	24	0:00	0:00
102	RT	Load Forecast Uncertainty	SCE	LA Basin	8/10/2021	10 - 70	No	INC	9	15:00	0:00
103	RT	Load Forecast Uncertainty	SCE	LA Basin	8/11/2021	147 - 406	No	DEC	6	16:45	22:00
104	RT	Load Forecast Uncertainty	SCE	LA Basin	8/11/2021	10 - 406	Yes	INC	22	0:00	22:00
105	RT	Load Forecast Uncertainty	SCE	LA Basin	8/12/2021	151	No	DEC	8	14:00	22:00
106	RT	Load Forecast Uncertainty	SCE	LA Basin	8/12/2021	10 - 406	No	INC	7	17:00	0:00
107	RT	Load Forecast Uncertainty	SCE	LA Basin	8/13/2021	10 - 130	Yes	INC	24	0:00	0:00
108	RT	Load Forecast Uncertainty	SCE	LA Basin	8/14/2021	10 - 130	Yes	INC	24	0:00	0:00
109	RT	Load Forecast Uncertainty	SCE	LA Basin	8/15/2021	10 - 130	No	INC	24	0:00	0:00
110	RT	Load Forecast Uncertainty	SCE	LA Basin	8/16/2021	151	No	DEC	7	15:30	22:00
111	RT	Load Forecast Uncertainty	SCE	LA Basin	8/16/2021	10 - 130	Yes	INC	24	0:00	0:00
112	RT	Load Forecast Uncertainty	SCE	LA Basin	8/26/2021	70	No	INC	10	14:00	0:00
113	RT	Load Forecast Uncertainty	SCE	LA Basin	8/27/2021	70	No	INC	10	14:00	0:00
114	RT	Load Forecast Uncertainty	SCE	LA Basin	8/28/2021	70	No	INC	24	0:00	0:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
115	RT	Load Forecast Uncertainty	SCE	LA Basin	8/29/2021	70	No	INC	24	0:00	0:00
116	RT	Load Forecast Uncertainty	SCE	LA Basin	8/30/2021	70	No	INC	24	0:00	0:00
117	RT	Load Forecast Uncertainty	SCE	LA Basin	8/31/2021	20	No	INC	15	9:00	0:00
118	RT	Market Disruption	PGAE	Fresno	8/5/2021	83 - 406	No	INC	3	6:00	9:00
119	RT	Market Disruption	PGAE	Sierra	8/5/2021	20	No	DEC	1	17:00	18:00
120	RT	Market Disruption	PGAE	Sierra	8/5/2021	20	No	INC	11	7:25	18:00
121	RT	Market Disruption	PGAE	NA	8/5/2021	41 - 240	No	INC	1	6:05	6:25
122	RT	Market Disruption	SCE	LA Basin	8/7/2021	290	No	DEC	2	4:45	6:00
123	RT	Market Disruption	SDGE	San Diego-IV	8/5/2021	24 - 111	No	INC	2	6:00	7:30
124	RT	Other Reliability Requirement	PGAE	Fresno	8/14/2021	83	No	INC	1	0:15	0:50
125	RT	Other Reliability Requirement	PGAE	Humboldt	8/12/2021	14 - 45	No	INC	1	17:55	18:30
126	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	8/10/2021	401	No	INC	8	14:05	22:00
127	RT	Other Reliability Requirement	SCE	LA Basin	8/10/2021	190	No	DEC	5	16:00	21:00
128	RT	Other Reliability Requirement	SCE	LA Basin	8/10/2021	190 - 194	No	INC	9	13:50	22:00
129	RT	Other Reliability Requirement	SCE	LA Basin	8/14/2021	214 - 226	No	DEC	1	0:15	0:45
130	RT	Other Reliability Requirement	SCE	NA	8/22/2021	200	No	INC	8	7:00	15:00
131	RT	Planned Transmission Outage	PGAE	Bay Area	8/13/2021	330	No	DEC	2	6:50	8:00
132	RT	Planned Transmission Outage	PGAE	Fresno	8/17/2021	20 - 43	No	DEC	5	19:45	0:00
133	RT	Planned Transmission Outage	PGAE	Fresno	8/17/2021	20 - 43	No	INC	3	19:50	22:15
134	RT	Planned Transmission Outage	PGAE	Fresno	8/18/2021	20	No	DEC	5	0:00	4:45
135	RT	Planned Transmission Outage	PGAE	Humboldt	8/1/2021	48	No	DEC	3	16:00	18:45
136	RT	Planned Transmission Outage	PGAE	Kern	8/3/2021	32	No	INC	4	8:45	12:30
137	RT	Planned Transmission Outage	PGAE	NCNB	8/1/2021	57 - 70	No	DEC	11	7:25	18:00
138	RT	Planned Transmission Outage	PGAE	NCNB	8/11/2021	60	No	DEC	15	7:25	22:00
139	RT	Planned Transmission Outage	PGAE	NCNB	8/12/2021	60 - 65	No	DEC	22	2:30	0:00
140	RT	Planned Transmission Outage	PGAE	NCNB	8/12/2021	60	No	INC	1	9:00	10:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
141	RT	Planned Transmission Outage	PGAE	NCNB	8/13/2021	60	No	DEC	10	12:00	22:00
142	RT	Planned Transmission Outage	PGAE	NCNB	8/13/2021	60	No	INC	22	0:00	22:00
143	RT	Planned Transmission Outage	PGAE	NCNB	8/18/2021	60	No	DEC	1	13:55	14:30
144	RT	Planned Transmission Outage	PGAE	NCNB	8/22/2021	70 - 77	No	DEC	6	8:20	13:30
145	RT	Planned Transmission Outage	PGAE	NCNB	8/22/2021	70	No	INC	1	8:20	9:00
146	RT	Planned Transmission Outage	PGAE	Sierra	8/3/2021	20	No	DEC	1	21:25	22:00
147	RT	Planned Transmission Outage	PGAE	Sierra	8/3/2021	20	No	INC	2	22:00	0:00
148	RT	Planned Transmission Outage	PGAE	Sierra	8/4/2021	20	No	DEC	7	15:00	22:00
149	RT	Planned Transmission Outage	PGAE	Sierra	8/4/2021	20 - 42	No	INC	17	6:00	23:00
150	RT	Planned Transmission Outage	PGAE	Sierra	8/5/2021	20	No	INC	5	3:45	8:00
151	RT	Planned Transmission Outage	PGAE	Sierra	8/8/2021	20	No	INC	4	20:45	0:00
152	RT	Planned Transmission Outage	PGAE	Sierra	8/9/2021	20	No	INC	6	0:00	6:00
153	RT	Planned Transmission Outage	PGAE	Sierra	8/14/2021	20	No	DEC	3	18:00	21:00
154	RT	Planned Transmission Outage	PGAE	Sierra	8/14/2021	20	No	INC	10	14:40	0:00
155	RT	Planned Transmission Outage	PGAE	Sierra	8/20/2021	20	No	INC	12	12:40	0:00
156	RT	Planned Transmission Outage	PGAE	Sierra	8/21/2021	20	No	INC	1	0:00	1:00
157	RT	Planned Transmission Outage	PGAE	Stockton	8/11/2021	20	No	INC	3	12:10	15:00
158	RT	Planned Transmission Outage	PGAE	Stockton	8/14/2021	30	No	INC	3	19:10	22:00
159	RT	Planned Transmission Outage	PGAE	Stockton	8/20/2021	89	No	DEC	1	17:00	18:00
160	RT	Planned Transmission Outage	PGAE	Stockton	8/20/2021	50 - 89	No	INC	17	7:45	0:00
161	RT	Planned Transmission Outage	PGAE	Stockton	8/21/2021	89	No	INC	24	0:00	0:00
162	RT	Planned Transmission Outage	PGAE	Stockton	8/22/2021	89	No	INC	24	0:00	0:00
163	RT	Planned Transmission Outage	PGAE	Stockton	8/23/2021	89	No	INC	24	0:00	0:00
164	RT	Planned Transmission Outage	PGAE	Stockton	8/24/2021	89	No	INC	24	0:00	0:00
165	RT	Planned Transmission Outage	PGAE	Stockton	8/25/2021	89	No	DEC	3	14:00	17:00
166	RT	Planned Transmission Outage	PGAE	Stockton	8/25/2021	89	No	INC	14	0:00	14:00
167	RT	Planned Transmission Outage	PGAE	Stockton	8/26/2021	89	No	DEC	18	6:00	0:00
168	RT	Planned Transmission Outage	PGAE	Stockton	8/26/2021	89	No	INC	6	8:00	14:00
169	RT	Planned Transmission Outage	PGAE	Stockton	8/27/2021	89	No	DEC	11	4:00	14:45

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
170	RT	Planned Transmission Outage	PGAE	Stockton	8/27/2021	89	No	INC	13	0:00	13:00
171	RT	Planned Transmission Outage	SCE	Big Creek-Ventura	8/17/2021	49	No	DEC	3	17:25	19:45
172	RT	Ramping Capacity	PGAE	Sierra	8/25/2021	20	No	INC	8	14:50	22:00
173	RT	Ramping Capacity	PGAE	NA	8/16/2021	50	No	DEC	5	16:45	21:00
174	RT	Ramping Capacity	PGAE	NA	8/16/2021	50	No	INC	2	21:00	23:00
175	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/2/2021	400.1	No	INC	7	15:00	22:00
176	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/3/2021	400.1	No	DEC	4	16:00	20:00
177	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/3/2021	400.1	No	INC	8	14:00	22:00
178	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/4/2021	400.1	No	INC	8	14:00	22:00
179	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/5/2021	410	No	INC	7	15:40	22:00
180	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/6/2021	410	No	INC	7	15:30	22:00
181	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/11/2021	401	No	DEC	1	16:00	17:00
182	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/11/2021	401	No	INC	2	15:00	17:00
183	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/12/2021	401	No	INC	8	14:00	22:00
184	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/13/2021	401	No	INC	6	16:00	22:00
185	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/14/2021	401	No	INC	6	16:00	22:00
186	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/15/2021	401	No	INC	7	15:00	22:00
187	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/16/2021	401 - 500	No	INC	8	14:00	22:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
188	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/26/2021	410	No	INC	6	16:00	22:00
189	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/27/2021	401	No	INC	5	17:00	22:00
190	RT	Ramping Capacity	SCE	Big Creek-Ventura	8/30/2021	400.1	No	INC	6	16:00	22:00
191	RT	Ramping Capacity	SCE	LA Basin	8/2/2021	190 - 240	No	INC	7	15:00	22:00
192	RT	Ramping Capacity	SCE	LA Basin	8/3/2021	194	No	DEC	6	15:00	21:00
193	RT	Ramping Capacity	SCE	LA Basin	8/3/2021	190 - 241	No	INC	8	14:00	22:00
194	RT	Ramping Capacity	SCE	LA Basin	8/4/2021	190 - 194	No	DEC	6	15:00	21:00
195	RT	Ramping Capacity	SCE	LA Basin	8/4/2021	140 - 241	No	INC	8	14:00	22:00
196	RT	Ramping Capacity	SCE	LA Basin	8/5/2021	190 - 240	No	INC	7	15:35	22:00
197	RT	Ramping Capacity	SCE	LA Basin	8/6/2021	65 - 240	No	INC	7	15:30	22:00
198	RT	Ramping Capacity	SCE	LA Basin	8/7/2021	65 - 194	No	INC	7	15:00	22:00
199	RT	Ramping Capacity	SCE	LA Basin	8/9/2021	190 - 194	No	INC	3	18:00	21:00
200	RT	Ramping Capacity	SCE	LA Basin	8/11/2021	190 - 194	No	DEC	2	15:00	17:00
201	RT	Ramping Capacity	SCE	LA Basin	8/11/2021	240	No	INC	2	15:00	17:00
202	RT	Ramping Capacity	SCE	LA Basin	8/12/2021	190 - 240	No	INC	8	14:00	22:00
203	RT	Ramping Capacity	SCE	LA Basin	8/13/2021	190 - 240	No	INC	6	16:00	22:00
204	RT	Ramping Capacity	SCE	LA Basin	8/14/2021	240	No	INC	6	16:00	22:00
205	RT	Ramping Capacity	SCE	LA Basin	8/15/2021	194	No	DEC	5	16:00	21:00
206	RT	Ramping Capacity	SCE	LA Basin	8/15/2021	190 - 240	No	INC	7	15:00	22:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
207	RT	Ramping Capacity	SCE	LA Basin	8/16/2021	190 - 326	No	DEC	3	17:00	20:00
208	RT	Ramping Capacity	SCE	LA Basin	8/16/2021	190 - 480	No	INC	8	14:00	22:00
209	RT	Ramping Capacity	SCE	LA Basin	8/26/2021	240	No	INC	6	16:00	22:00
210	RT	Ramping Capacity	SCE	LA Basin	8/27/2021	190	No	DEC	3	17:00	20:00
211	RT	Ramping Capacity	SCE	LA Basin	8/27/2021	190 - 194	No	INC	6	16:00	22:00
212	RT	Ramping Capacity	SCE	LA Basin	8/30/2021	190 - 240	No	INC	4	18:35	22:00
213	RT	Reliability Assessment	PGAE	Fresno	8/5/2021	6 - 30	No	DEC	4	20:40	0:00
214	RT	Reliability Assessment	PGAE	Fresno	8/6/2021	6 - 30	No	DEC	8	0:00	8:00
215	RT	Reliability Assessment	PGAE	Fresno	8/9/2021	10	No	DEC	2	21:40	23:30
216	RT	Reliability Assessment	PGAE	Fresno	8/10/2021	6	No	DEC	6	2:55	8:00
217	RT	Reliability Assessment	PGAE	Humboldt	8/1/2021	15 - 42	No	DEC	17	0:00	16:30
218	RT	Reliability Assessment	PGAE	Humboldt	8/1/2021	42	No	INC	12	0:00	12:00
219	RT	Reliability Assessment	PGAE	Kern	8/4/2021	32	No	DEC	1	21:55	22:00
220	RT	Reliability Assessment	PGAE	Kern	8/4/2021	32	No	INC	2	22:00	0:00
221	RT	Reliability Assessment	PGAE	Kern	8/5/2021	32	No	INC	23	0:00	22:45
222	RT	Reliability Assessment	PGAE	Kern	8/6/2021	32	No	INC	2	0:00	2:00
223	RT	Reliability Assessment	PGAE	Kern	8/8/2021	32	No	INC	6	16:00	22:00
224	RT	Reliability Assessment	PGAE	Kern	8/12/2021	32	No	INC	2	22:00	0:00
225	RT	Reliability Assessment	PGAE	Kern	8/13/2021	32	No	INC	1	23:00	0:00
226	RT	Reliability Assessment	PGAE	Kern	8/24/2021	32	No	INC	2	16:45	18:00
227	RT	Reliability Assessment	PGAE	Kern	8/26/2021	32	No	INC	4	19:55	23:00
228	RT	Reliability Assessment	PGAE	Kern	8/31/2021	32	No	INC	8	15:00	23:00
229	RT	Reliability Assessment	PGAE	NCNB	8/15/2021	70	No	INC	1	23:50	0:00
230	RT	Reliability Assessment	PGAE	NCNB	8/16/2021	70	No	INC	6	0:00	6:00
231	RT	Reliability Assessment	PGAE	Sierra	8/1/2021	40	No	DEC	6	16:00	22:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
232	RT	Reliability Assessment	PGAE	Sierra	8/1/2021	20 - 40	No	INC	22	0:00	22:00
233	RT	Reliability Assessment	PGAE	Sierra	8/2/2021	20	No	DEC	8	14:00	22:00
234	RT	Reliability Assessment	PGAE	Sierra	8/2/2021	20 - 42	No	INC	18	6:00	0:00
235	RT	Reliability Assessment	PGAE	Sierra	8/3/2021	20 - 42	No	INC	13	0:00	12:30
236	RT	Reliability Assessment	PGAE	Sierra	8/5/2021	20	No	DEC	4	18:00	22:00
237	RT	Reliability Assessment	PGAE	Sierra	8/5/2021	20	No	INC	10	14:10	0:00
238	RT	Reliability Assessment	PGAE	Sierra	8/6/2021	20	No	DEC	2	16:00	18:00
239	RT	Reliability Assessment	PGAE	Sierra	8/6/2021	20 - 42	Yes	INC	20	0:00	20:00
240	RT	Reliability Assessment	PGAE	Sierra	8/7/2021	20	No	DEC	2	19:15	21:00
241	RT	Reliability Assessment	PGAE	Sierra	8/7/2021	20	No	INC	5	19:30	0:00
242	RT	Reliability Assessment	PGAE	Sierra	8/8/2021	20	No	INC	8	0:00	8:00
243	RT	Reliability Assessment	PGAE	Sierra	8/9/2021	20	No	INC	6	12:45	18:00
244	RT	Reliability Assessment	PGAE	Sierra	8/11/2021	40 - 42	No	INC	2	22:30	0:00
245	RT	Reliability Assessment	PGAE	Sierra	8/12/2021	20 - 42	No	DEC	7	15:00	22:00
246	RT	Reliability Assessment	PGAE	Sierra	8/12/2021	20 - 42	No	INC	24	0:00	0:00
247	RT	Reliability Assessment	PGAE	Sierra	8/13/2021	20	No	INC	2	0:00	2:00
248	RT	Reliability Assessment	PGAE	Sierra	8/14/2021	20	No	INC	4	4:55	8:00
249	RT	Reliability Assessment	PGAE	Sierra	8/15/2021	20	No	DEC	2	18:45	20:00
250	RT	Reliability Assessment	PGAE	Sierra	8/15/2021	20	No	INC	3	20:00	23:00
251	RT	Reliability Assessment	PGAE	Sierra	8/16/2021	40	No	INC	2	22:00	0:00
252	RT	Reliability Assessment	PGAE	Sierra	8/17/2021	20	No	DEC	6	16:00	22:00
253	RT	Reliability Assessment	PGAE	Sierra	8/17/2021	20	No	INC	13	11:45	0:00
254	RT	Reliability Assessment	PGAE	Sierra	8/18/2021	20	Yes	INC	5	0:00	4:45
255	RT	Reliability Assessment	PGAE	Sierra	8/19/2021	20	No	INC	10	14:10	0:00
256	RT	Reliability Assessment	PGAE	Sierra	8/20/2021	20	No	INC	3	0:00	3:00
257	RT	Reliability Assessment	PGAE	Sierra	8/21/2021	20	No	INC	16	8:10	0:00
258	RT	Reliability Assessment	PGAE	Sierra	8/22/2021	20	Yes	INC	2	0:00	2:00
259	RT	Reliability Assessment	PGAE	Sierra	8/23/2021	20	No	DEC	2	18:00	20:00
260	RT	Reliability Assessment	PGAE	Sierra	8/23/2021	20 - 40	No	INC	16	8:40	0:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
261	RT	Reliability Assessment	PGAE	Sierra	8/24/2021	40	No	DEC	1	22:50	23:00
262	RT	Reliability Assessment	PGAE	Sierra	8/24/2021	20 - 40	No	INC	24	0:00	0:00
263	RT	Reliability Assessment	PGAE	Sierra	8/25/2021	40	No	DEC	1	22:55	23:00
264	RT	Reliability Assessment	PGAE	Sierra	8/25/2021	40 - 42	Yes	INC	24	0:00	0:00
265	RT	Reliability Assessment	PGAE	Sierra	8/26/2021	40	No	DEC	1	22:40	23:00
266	RT	Reliability Assessment	PGAE	Sierra	8/26/2021	40	No	INC	24	0:00	0:00
267	RT	Reliability Assessment	PGAE	Sierra	8/27/2021	20 - 40	No	DEC	6	16:40	22:00
268	RT	Reliability Assessment	PGAE	Sierra	8/27/2021	20 - 40	No	INC	24	0:00	0:00
269	RT	Reliability Assessment	PGAE	Sierra	8/28/2021	20	No	DEC	4	17:00	21:00
270	RT	Reliability Assessment	PGAE	Sierra	8/28/2021	20	No	INC	9	15:45	0:00
271	RT	Reliability Assessment	PGAE	Sierra	8/29/2021	20	No	DEC	7	15:00	22:00
272	RT	Reliability Assessment	PGAE	Sierra	8/29/2021	8.5 - 47	No	INC	22	0:00	22:00
273	RT	Reliability Assessment	PGAE	Sierra	8/30/2021	20	No	DEC	7	15:00	22:00
274	RT	Reliability Assessment	PGAE	Sierra	8/30/2021	20	No	INC	12	12:00	0:00
275	RT	Reliability Assessment	PGAE	Sierra	8/31/2021	20	No	INC	4	0:00	4:00
276	RT	Reliability Assessment	PGAE	Stockton	8/9/2021	15	No	INC	4	18:20	22:15
277	RT	Reliability Assessment	PGAE	Stockton	8/10/2021	35 - 50	No	INC	5	18:15	23:00
278	RT	Reliability Assessment	PGAE	Stockton	8/15/2021	20 - 30	No	INC	7	16:20	23:00
279	RT	Reliability Assessment	PGAE	Stockton	8/29/2021	30	No	INC	5	17:05	22:00
280	RT	Reliability Assessment	PGAE	Stockton	8/30/2021	30	No	INC	6	16:10	22:00
281	RT	Reliability Assessment	PGAE	NA	8/10/2021	12 - 15	No	DEC	2	16:30	18:00
282	RT	Reliability Assessment	PGAE	NA	8/10/2021	12	No	INC	2	18:00	20:00
283	RT	Reliability Assessment	PGAE	NA	8/30/2021	10	No	DEC	2	16:25	18:00
284	RT	Reliability Assessment	SCE	Fresno	8/17/2021	100	No	DEC	1	17:10	18:00
285	RT	Reliability Assessment	SCE	Fresno	8/17/2021	100	No	INC	1	18:00	18:30
286	RT	Reliability Assessment	SCE	NA	8/10/2021	5 - 410	No	DEC	17	3:40	20:00
287	RT	Reliability Assessment	SCE	NA	8/10/2021	410	No	INC	1	15:10	16:00
288	RT	Reliability Assessment	SCE	NA	8/11/2021	450	No	DEC	10	13:55	23:00
289	RT	Reliability Assessment	SCE	NA	8/14/2021	410	No	DEC	2	1:30	3:00

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
290	RT	Reliability Assessment	SCE	NA	8/14/2021	410	No	INC	1	3:00	4:00
291	RT	Reliability Assessment	SCE	NA	8/16/2021	350 - 411	No	DEC	19	5:35	0:00
292	RT	Reliability Assessment	SCE	NA	8/16/2021	411	No	INC	4	7:00	10:15
293	RT	Reliability Assessment	SCE	NA	8/17/2021	410	No	DEC	3	0:00	3:00
294	RT	Reliability Assessment	SCE	NA	8/17/2021	410	No	INC	19	3:00	22:00
295	RT	Reliability Assessment	SCE	NA	8/24/2021	450	No	DEC	4	17:30	21:00
296	RT	Reliability Assessment	SCE	NA	8/24/2021	450	No	INC	3	21:00	0:00
297	RT	Reliability Assessment	SCE	NA	8/25/2021	440 - 450	No	DEC	4	17:00	21:00
298	RT	Reliability Assessment	SCE	NA	8/25/2021	440 - 450	No	INC	24	0:00	0:00
299	RT	Reliability Assessment	SCE	NA	8/26/2021	440	No	INC	4	0:00	4:00
300	RT	Software Limitation	PGAE	Bay Area	8/14/2021	510	No	INC	1	3:10	4:00
301	RT	Software Limitation	PGAE	Fresno	8/13/2021	83	No	INC	1	23:55	0:00
302	RT	Software Limitation	PGAE	Fresno	8/14/2021	-302	No	DEC	2	12:00	14:00
303	RT	Software Limitation	PGAE	Fresno	8/14/2021	-302 - 83	No	INC	12	0:00	12:00
304	RT	Software Limitation	PGAE	NA	8/7/2021	399	No	DEC	2	10:10	12:00
305	RT	Software Limitation	SCE	Big Creek-Ventura	8/5/2021	410	No	INC	4	6:25	10:00
306	RT	Software Limitation	SCE	LA Basin	8/5/2021	65	No	INC	3	5:50	8:45
307	RT	Software Limitation	SCE	LA Basin	8/14/2021	5 - 74.46	No	INC	1	0:00	0:55
308	RT	Software Limitation	SCE	LA Basin	8/27/2021	5 - 5.75	No	INC	1	11:45	12:35
309	RT	Software Limitation	SCE	LA Basin	8/28/2021	0 - 5	No	INC	11	1:45	12:10
310	RT	Software Limitation	SCE	NA	8/3/2021	0	No	DEC	4	16:00	20:00
311	RT	Software Limitation	SCE	NA	8/3/2021	0	No	INC	3	14:20	17:00
312	RT	Software Limitation	SDGE	San Diego-IV	8/5/2021	24 - 300	No	INC	1	6:20	7:00
313	RT	Unit Testing	SCE	Big Creek-Ventura	8/4/2021	2.73	No	INC	1	0:45	1:30

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
314	RT	Unit Testing	SCE	Big Creek-Ventura	8/27/2021	250	No	INC	3	12:55	15:00
315	RT	Unit Testing	SCE	LA Basin	8/4/2021	18.8	No	INC	1	15:45	16:15
316	RT	Unit Testing	SCE	LA Basin	8/11/2021	30	No	INC	1	19:25	20:00
317	RT	Unit Testing	SCE	LA Basin	8/20/2021	101	No	DEC	1	19:00	19:15
318	RT	Unit Testing	SCE	LA Basin	8/20/2021	101	No	INC	1	18:45	19:00
319	RT	Unit Testing	SDGE	San Diego-IV	8/13/2021	20	No	INC	1	16:40	17:00
320	RT	Unit Testing	SDGE	San Diego-IV	8/28/2021	46	No	INC	1	20:10	20:45
321	RT	Unplanned Outage	Intertie	Humboldt	8/27/2021	0	No	DEC	3	20:35	22:45
322	RT	Unplanned Outage	Intertie	NA	8/27/2021	0	No	DEC	3	20:35	22:45
323	RT	Voltage Support	PGAE	Fresno	8/16/2021	83	No	DEC	5	17:00	22:00
324	RT	Voltage Support	PGAE	Fresno	8/16/2021	83	No	INC	1	16:05	17:00
325	RT	Voltage Support	PGAE	Kern	8/17/2021	32	No	INC	4	18:15	22:00

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.

Table 2: Instructions Prior to Day-Ahead Market

Date	Market	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch Level (MW)	Reason
01-Jul-09	DA	A	SCE	LA BASIN	05:00	10:00	50	7630
01-Jul-09	DA	B	SCE	LA BASIN	08:00	20:00	30	7630
01-Jul-09	DA	C	SCE	LA BASIN	09:00	23:00	20	7630

This data is summarized as shown in Table 3, which is the prescribed format specified in the FERC order on September 02, 2009. This summary classifies the data by reason, resource location, local reliability area, and trade date. The MW column in Table 3 is the range of MW; in this case the minimum instruction MW is 20 MW for resource C which occurs from hours ending 21 through 23. The maximum instruction occurs in hour ending 10. In this hour resource A is committed at 50 MW, resource B is committed at 30 MW and resource C is committed at 20 MW. This adds up to 100 MW. 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.

Table 3: FERC Summary of Instructions Prior to DAM

Number	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time
1	DA	7630	SCE	LA Basin	1-Jul-09	20-100	Yes	N/A	19	05:00	23:00

Example 2: Incremental Exceptional Dispatch Instructions in RTM

In this fictitious example, the 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.

Table 4: Incremental Exceptional Dispatch Instructions in RTM

Date	Market	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch Level (MW)	Day-Ahead Award (MW)	Commitment	INC/DEC	ED (MW)	Reason
01-Jul-09	RT	A	PG&E	Humboldt	06:00	11:00	30	0	Yes	INC	30	7110
01-Jul-09	RT	B	PG&E	Humboldt	07:00	09:00	40	20	No	INC	20	7110
01-Jul-09	RT	C	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	7110
01-Jul-09	RT	C	PG&E	Humboldt	16:00	20:00	50	40	No	INC	10	7110

This data is summarized as shown in Table 5 and is classified by reason, resource location, local reliability area, and trade date. The MW column in Table 5 is the range of MW; in this case the minimum instruction MW is 0 MW for resource C which occurs from hours ending 13 through 15. The maximum instruction occurs in hours ending 8 & 9, as during these two hours both resources A and B have an ED MW of 30MW and 20MW, respectively. This adds up to 50 MW. 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 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.

Table 6: Decremental Exceptional Dispatch Instructions in RTM

Date	Market Type	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch Level (MW)	Day-Ahead Award (MW)	Commitment	INC/DEC	ED (MW)	Reason
01-Jul-09	RT	A	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	7430
01-Jul-09	RT	B	PG&E	Fresno	07:00	09:00	40	60	No	DEC	20	7430
01-Jul-09	RT	C	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	7430

This data is summarized according to FERC convention as shown in Table 7. This summary classifies the data by reason, resource location, local reliability area, and trade date. Please note that inc and dec are broken out separately. The inc entry is self-explanatory and similar to the previous example. Regarding the dec entry the MW column is the range of MW; in this case the minimum dec instruction is 10 MW (actually -10MW as it is a dec) for resource C which occurs from hours ending 10 through 14. The maximum instruction occurs from hours ending 7 through 9, when resource B was issued a dec instruction of 20 MW. 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