

October 15, 2015

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Re: California Independent System Operator Corporation  
Docket Nos. ER08-1178-\_\_\_\_, and EL08-88-\_\_\_\_  
August 2015 Exceptional Dispatch Report (Chart 1 data)**

Dear Secretary Bose:

Pursuant to the Commission's September 2, 2009 and May 4, 2010 orders in the above referenced dockets, the California Independent System Operator Corporation submits the attached report. The attached report provides details concerning Exceptional Dispatches the Commission directed to be included in "Chart 1" as set forth in Appendix A of the September 2 order, as modified by the ISO's September 14 motion for clarification, which the Commission granted in its May 4 order. The attached report provides Chart 1 data for the month of August 2015.

Respectfully submitted,

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# **Exceptional Dispatch Report**

## **Table 1: August 2015**

## TABLE OF CONTENTS

Introduction .....	3
The Nature of Exceptional Dispatch.....	3
Appendix A: Explanation by Example .....	16
Example 1: Exceptional Dispatch Instructions Prior to DAM .....	16
Example 2: Incremental Exceptional Dispatch Instructions in RTM.....	17
Example 3: Decremental Exceptional Dispatch Instructions in RTM.....	19

## LIST OF TABLES AND FIGURES

Table 1: Exceptional Dispatches in August 2015.....	5
Table 2: Instructions Prior to Day-Ahead Market .....	16
Table 3: FERC Summary of Instructions Prior to DAM .....	17
Table 4: Incremental Exceptional Dispatch Instructions in RTM .....	17
Table 5: FERC Summary of ED Instructions in RTM .....	18
Table 6: Decremental Exceptional Dispatch Instructions in RTM .....	19
Table 7: FERC Summary of Decremental ED Instructions in RTM.....	19

## Introduction

This report is filed pursuant to FERC's September 2, 2009 and July 4, 2010 orders in ER08-1178. These orders require two monthly Exceptional Dispatch reports — one issued on the 15<sup>th</sup> of each month and one issued on the 30<sup>th</sup> of each month. This report provides data on the frequency and reasons for Exceptional Dispatches issued in August 2015

## 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 an indicative exceptional dispatch energy schedule, a post-day-ahead unit commitment, or a real-time exceptional dispatch<sup>1</sup>. A pre-day-ahead commitment is an exceptional dispatch instruction that commits a resource at or above its physical minimum operating level in the day-ahead market. A post-day-ahead market commitment is an exceptional dispatch instruction that commits a resource at or above its physical minimum operating level in the real-time market. A real-time exceptional dispatch instruction is a dispatch of a resource at or above its physical minimum operating point. 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<sup>2</sup>.

The following reason for exceptional dispatch instructions in August 2015 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 day-ahead schedule from 0600 till 2300, and then is shut down in

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<sup>1</sup> The CAISO can issue exceptional dispatch instructions subject to authority of the CAISO Tariff Section 34.9 and in accordance with CAISO Operating Procedure 2330 (formerly M-402).

<sup>2</sup> 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>

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. There were a few other reasons used to explain exceptional dispatch instructions in August 2015, which are self explanatory.

The data in Table 1 is based on a template specified in the September 2009 order<sup>3</sup>. Each entry in Attachment A is a summary of exceptional dispatches classified by (1) the reason for the exceptional dispatch; (2) the location of the resource by Participating Transmission Owner (“PTO”) service area; (3) the Local Reliability Area (“LRA”) where applicable; (4) the market in which the exceptional dispatch occurred (day-ahead vs. real-time); and (5) the date of the exceptional dispatch. For each classification the following information is provided: (1) Megawatts (MW); (2) Commitment (3) Inc or Dec (4) Hours; (5) Begin Time; and (6) End Time.

The MW column shows the range of exceptional dispatch instructions in MW for the classification. The Commitment column specifies if there was a unit commitment for the classification. The INC/DEC/NA column specifies if there was an incremental dispatch, a decremental dispatch, or only a unit commitment. If the exceptional dispatch was only a unit commitment, the column shows NA for the classification. The Begin Time column shows the start of exceptional dispatch for the classification and the End Time column shows the end of exceptional dispatch for the classification. The column Hours is the difference between end time and begin time rounded up to the next hour. The data shown is further explained by way of example in Attachment A.

Table 1 indicates there were 248 exceptional dispatches in August 2015, as compared to 190 exceptional dispatches in July 2015. Exceptional dispatches issued for the following reasons accounted for approximately 78 percent of the total exceptional dispatches during the reporting period: planned transmission outages, software limitations, operating procedure numbers 7110, 7230, 7320, 7430, 7820, and load forecast uncertainty.

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<sup>3</sup> The data in Table 1 is principally SLIC information supplemented with data from the Market Quality System (MQS). It is the most accurate currently available and it is worth noting that this data has been through the T+38B initial statement process wherein many unresolved issues are fixed. The CAISO believes that this data will correlate well with the settlements data that will be available when the CAISO files the Table 2 report for the reporting period.

**Table 1: Exceptional Dispatches in August 2015**

**California Independent System Operator Corporation  
Exceptional Dispatch Report  
October 15, 2015**

**Chart 1: Table of Exceptional Dispatches for Period 01/August/2015 - 31/August/2015**

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
1	RT	Bridging Schedules	SCE	Big Creek-Ventura	8/13/2015	50	No	INC	2	22:00	23:59
2	RT	Bridging Schedules	SCE	Big Creek-Ventura	8/14/2015	50- 150	No	INC	4	20:00	23:59
3	RT	Bridging Schedules	SCE	LA Basin	8/14/2015	10- 110	Yes	INC	4	20:00	23:59
4	RT	Bridging Schedules	SCE	LA Basin	8/18/2015	70	No	INC	1	23:00	23:59
5	RT	Bridging Schedules	SCE	LA Basin	8/25/2015	25- 35	Yes	INC	4	20:00	23:59
6	RT	Bridging Schedules	SCE	LA Basin	8/26/2015	20	Yes	INC	3	21:00	23:59
7	RT	Bridging Schedules	SCE	LA Basin	8/27/2015	20	No	INC	3	21:05	23:59
8	RT	Bridging Schedules	SDG&E	San Diego-IV	8/25/2015	20	Yes	INC	2	22:00	23:59
9	RT	Bridging Schedules	SDG&E	San Diego-IV	8/27/2015	20	No	INC	2	22:50	23:59
10	RT	Conditions beyond the control of the CAISO	N/A	N/A	8/25/2015	40- 46	No	INC	2	22:50	23:59
11	RT	Conditions beyond the control of the CAISO	N/A	N/A	8/26/2015	30	No	INC	11	1:25	11:59
12	RT	Conditions beyond the control of the CAISO	PG&E	Fresno	8/7/2015	-312	No	INC	4	1:00	4:59
13	RT	Conditions beyond the control of the CAISO	PG&E	Humboldt	8/25/2015	35	No	INC	2	22:55	23:59
14	RT	Conditions beyond the control of the CAISO	PG&E	Humboldt	8/26/2015	35- 40	No	INC	2	6:05	7:59
15	RT	Conditions beyond the control of the CAISO	PG&E	N/A	8/3/2015	47- 147	No	INC	14	6:55	19:59
16	RT	Conditions beyond the control of the CAISO	SCE	Big Creek-Ventura	8/16/2015	810	No	INC	6	16:14	21:59
17	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	8/16/2015	201- 683	No	INC	6	16:17	21:59
18	RT	Conditions beyond the control of the CAISO	SDG&E	San Diego-IV	8/1/2015	68	No	INC	1	13:45	13:49
19	RT	Incomplete or Inaccurate Transmission	N/A	N/A	8/29/2015	10- 24	No	INC	13	9:30	21:59
20	RT	Incomplete or Inaccurate Transmission	N/A	N/A	8/31/2015	24- 36	No	INC	21	2:00	22:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
21	RT	Incomplete or Inaccurate Transmission	PG&E	Sierra	8/26/2015	100	No	INC	5	17:14	21:59
22	RT	Incomplete or Inaccurate Transmission	SDG&E	San Diego-IV	8/26/2015	63- 133	No	INC	7	11:45	18:14
23	RT	Load Forecast Uncertainty	PG&E	Bay Area	8/17/2015	45	No	INC	14	10:00	23:59
24	RT	Load Forecast Uncertainty	PG&E	Bay Area	8/18/2015	45	No	INC	20	4:00	23:59
25	RT	Load Forecast Uncertainty	PG&E	Bay Area	8/27/2015	45	No	INC	14	10:00	23:59
26	RT	Load Forecast Uncertainty	PG&E	Bay Area	8/28/2015	45	No	INC	19	4:00	22:59
27	RT	Load Forecast Uncertainty	PG&E	N/A	8/3/2015	180	No	INC	14	10:00	23:59
28	RT	Load Forecast Uncertainty	PG&E	N/A	8/18/2015	52	No	INC	9	15:00	23:59
29	RT	Load Forecast Uncertainty	PG&E	N/A	8/24/2015	180	No	INC	13	9:00	21:59
30	RT	Load Forecast Uncertainty	PG&E	N/A	8/27/2015	52	No	INC	9	15:00	23:59
31	RT	Load Forecast Uncertainty	PG&E	N/A	8/29/2015	80	No	INC	22	2:00	23:59
32	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/4/2015	100	No	INC	2	22:00	23:59
33	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/12/2015	50	No	INC	15	9:00	23:59
34	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/15/2015	50	No	INC	3	21:00	23:59
35	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/16/2015	100	No	INC	10	14:55	23:59
36	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/18/2015	100	No	INC	9	15:00	23:59
37	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/26/2015	50- 100	No	INC	7	17:00	23:59
38	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/27/2015	50	No	INC	2	22:00	23:59
39	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	8/28/2015	50	No	INC	8	14:55	21:59
40	RT	Load Forecast Uncertainty	SCE	LA Basin	8/6/2015	10	No	INC	17	7:55	23:59
41	RT	Load Forecast Uncertainty	SCE	LA Basin	8/12/2015	20	No	INC	16	7:10	22:59
42	RT	Load Forecast Uncertainty	SCE	LA Basin	8/13/2015	240	No	INC	5	14:00	18:59
43	RT	Load Forecast Uncertainty	SCE	LA Basin	8/15/2015	30- 80	Yes	INC	15	9:00	23:59
44	RT	Load Forecast Uncertainty	SCE	LA Basin	8/16/2015	20- 70	Yes	INC	15	9:00	23:59
45	RT	Load Forecast Uncertainty	SCE	LA Basin	8/17/2015	35- 70	No	INC	14	10:00	23:59
46	RT	Load Forecast Uncertainty	SCE	LA Basin	8/18/2015	50- 120	Yes	INC	17	7:00	23:59
47	RT	Load Forecast Uncertainty	SCE	LA Basin	8/26/2015	45- 115	Yes	INC	19	5:00	23:59
48	RT	Load Forecast Uncertainty	SCE	LA Basin	8/27/2015	25- 50	Yes	INC	16	8:00	23:59
49	RT	Load Forecast Uncertainty	SCE	LA Basin	8/28/2015	25- 290	No	INC	15	9:00	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
50	RT	Load Forecast Uncertainty	SCE	N/A	8/24/2015	172	No	INC	12	8:00	19:59
51	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	8/14/2015	40	Yes	INC	3	6:00	8:59
52	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	8/15/2015	20- 60	Yes	INC	8	13:00	20:59
53	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	8/16/2015	60	Yes	INC	8	14:00	21:59
54	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	8/19/2015	20	No	INC	17	7:00	23:59
55	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	8/27/2015	40	Yes	INC	13	11:00	23:59
56	RT	Load Forecast Uncertainty	PG&E	Stockton	8/27/2015	22	No	INC	6	16:35	21:59
57	RT	Market Disruption	PG&E	Fresno	8/27/2015	404	No	INC	1	14:24	14:34
58	RT	Market Disruption	SDG&E	San Diego-IV	8/31/2015	20	No	INC	1	13:50	13:54
59	RT	Operating Procedure Number and Constraint	N/A	N/A	8/12/2015	55	No	INC	24	21:10	21:09
60	RT	Operating Procedure Number and Constraint	PG&E	Bay Area	8/18/2015	300	No	INC	1	10:12	10:49
61	RT	Operating Procedure Number and Constraint	PG&E	Humboldt	8/12/2015	55	No	INC	24	21:10	21:09
62	RT	Operating Procedure Number and Constraint	PG&E	N/A	8/18/2015	380- 965	No	INC	2	10:12	11:59
63	RT	Operating Procedure Number and Constraint	SDG&E	San Diego-IV	8/18/2015	63	No	INC	1	10:18	10:34
64	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/1/2015	10- 90	No	INC	1	0:00	0:14
65	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/2/2015	10- 48	No	INC	14	0:00	13:59
66	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/3/2015	24	No	INC	8	0:00	7:59
67	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/4/2015	20- 24	No	INC	24	1:50	0:59
68	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/5/2015	24	No	INC	13	1:00	13:59
69	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/14/2015	35	No	INC	7	17:15	23:59
70	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/15/2015	24- 30	No	INC	22	1:35	23:29
71	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/16/2015	10- 130	No	INC	24	1:40	0:59



Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
72	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/17/2015	12- 24	No	INC	4	1:00	4:59
73	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/23/2015	10- 80	No	INC	17	7:45	23:59
74	RT	Operating Procedure Number and Constraint (7110)	N/A	N/A	8/24/2015	15	No	INC	4	1:00	4:59
75	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	8/3/2015	10	No	INC	3	1:15	3:29
76	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	8/14/2015	70- 110	No	INC	7	17:15	23:59
77	RT	Operating Procedure Number and Constraint (7230)	PG&E	Sierra	8/8/2015	20	No	INC	6	16:45	21:59
78	RT	Operating Procedure Number and Constraint (7230)	PG&E	Sierra	8/9/2015	20- 30	No	INC	9	15:20	23:59
79	RT	Operating Procedure Number and Constraint (7230)	PG&E	Sierra	8/17/2015	45- 129	Yes	INC	4	19:55	22:59
80	RT	Operating Procedure Number and Constraint (7230)	PG&E	Sierra	8/22/2015	20	No	INC	8	15:22	22:59
81	RT	Operating Procedure Number and Constraint (7230)	PG&E	Sierra	8/23/2015	20	No	INC	5	17:45	21:59
82	RT	Operating Procedure Number and Constraint (7230)	PG&E	Sierra	8/27/2015	20	No	INC	6	17:35	22:59
83	RT	Operating Procedure Number and Constraint (7230)	PG&E	Sierra	8/30/2015	20	No	INC	5	17:49	21:59
84	RT	Operating Procedure Number and Constraint (7320)	PG&E	Bay Area	8/15/2015	20	No	INC	4	18:43	21:59
85	RT	Operating Procedure Number and Constraint (7320)	PG&E	Bay Area	8/16/2015	20- 40	No	INC	5	18:25	22:59
86	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/3/2015	10	No	INC	15	7:00	21:59
87	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/4/2015	10- 30	No	INC	6	6:00	11:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
88	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/7/2015	10- 41	No	INC	23	1:10	23:59
89	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/8/2015	6- 35	No	INC	22	0:05	21:59
90	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/11/2015	6- 89	No	INC	21	3:05	23:59
91	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/12/2015	6	No	INC	1	7:10	7:59
92	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/14/2015	10	No	INC	13	7:10	19:59
93	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/15/2015	6- 10	No	INC	19	6:00	0:59
94	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/16/2015	6	No	INC	1	1:00	1:59
95	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/17/2015	6- 10	No	INC	2	1:45	2:59
96	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/18/2015	20- 326	No	INC	22	1:35	22:59
97	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/19/2015	15- 35	No	INC	14	1:45	15:14
98	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/23/2015	83- 150	No	INC	2	22:00	23:29
99	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/24/2015	6- 30	No	INC	14	10:00	23:54
100	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/25/2015	6- 83	No	INC	16	7:50	22:59
101	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/28/2015	30- 40	No	INC	5	20:20	0:29
102	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/29/2015	6- 255	No	INC	1	0:00	0:29
103	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	8/30/2015	6	No	INC	2	1:35	2:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
104	RT	Operating Procedure Number and Constraint (7430)	PG&E	N/A	8/7/2015	47	No	INC	4	10:45	13:59
105	RT	Operating Procedure Number and Constraint (7430)	PG&E	N/A	8/11/2015	47	No	INC	23	1:30	23:59
106	RT	Operating Procedure Number and Constraint (7430)	PG&E	N/A	8/19/2015	99	No	INC	14	2:05	15:14
107	RT	Operating Procedure Number and Constraint (7820)	SCE	LA Basin	8/27/2015	750- 950	No	INC	3	10:47	12:59
108	RT	Operating Procedure Number and Constraint (7820)	SCE	N/A	8/27/2015	410	No	INC	2	11:05	12:59
109	RT	Operating Procedure Number and Constraint (7820)	SDG&E	San Diego-IV	8/13/2015	131- 300	No	INC	10	9:00	18:29
110	RT	Operating Procedure Number and Constraint (7820)	SDG&E	San Diego-IV	8/27/2015	525- 590	No	INC	2	11:01	12:59
111	RT	Other Reliability Requirement	PG&E	Bay Area	8/18/2015	250- 300	No	INC	2	10:45	11:59
112	RT	Other Reliability Requirement	PG&E	Fresno	8/17/2015	95- 240	No	INC	1	23:17	0:04
113	RT	Other Reliability Requirement	PG&E	Fresno	8/18/2015	95	No	INC	1	0:00	0:44
114	RT	Other Reliability Requirement	PG&E	Humboldt	8/5/2015	50	No	INC	2	17:45	19:29
115	RT	Other Reliability Requirement	PG&E	N/A	8/18/2015	47	No	INC	20	2:00	21:59
116	RT	Other Reliability Requirement	PG&E	NCNB	8/1/2015	145- 205	No	INC	5	19:00	23:59
117	RT	Other Reliability Requirement	PG&E	NCNB	8/2/2015	57- 205	No	INC	1	0:00	0:29
118	RT	Other Reliability Requirement	PG&E	NCNB	8/3/2015	35- 168	No	INC	24	0:00	23:14
119	RT	Other Reliability Requirement	PG&E	NCNB	8/4/2015	34- 119	No	INC	20	4:55	0:29
120	RT	Other Reliability Requirement	PG&E	NCNB	8/5/2015	39- 240	No	INC	18	6:45	23:59
121	RT	Other Reliability Requirement	PG&E	NCNB	8/6/2015	50- 85	No	INC	16	5:45	20:59
122	RT	Other Reliability Requirement	PG&E	NCNB	8/7/2015	54- 201	No	INC	5	19:30	23:59
123	RT	Other Reliability Requirement	PG&E	NCNB	8/8/2015	151- 215	No	INC	13	2:10	14:59
124	RT	Other Reliability Requirement	PG&E	Sierra	8/15/2015	107	No	INC	6	16:00	21:59
125	RT	Other Reliability Requirement	PG&E	Sierra	8/27/2015	100- 108	No	INC	6	15:05	20:59
126	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	8/10/2015	350	No	INC	4	15:25	18:44

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
127	RT	Other Reliability Requirement	SCE	N/A	8/20/2015	181	No	INC	3	17:10	19:59
128	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/5/2015	45	No	INC	3	15:20	17:29
129	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/10/2015	63- 131	No	INC	9	11:30	19:59
130	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/14/2015	20- 40	No	INC	5	12:50	17:29
131	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/21/2015	131	No	INC	12	8:55	19:59
132	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/22/2015	68- 131	No	INC	12	6:30	17:59
133	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/23/2015	63	No	INC	15	4:25	18:29
134	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/24/2015	25	No	INC	5	15:57	19:59
135	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/25/2015	0	No	INC	5	12:15	16:59
136	RT	Other Reliability Requirement	SDG&E	San Diego-IV	8/26/2015	63	No	INC	3	11:17	13:39
137	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/5/2015	10- 20	No	INC	11	13:30	23:44
138	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/6/2015	24- 27	No	INC	17	7:40	23:59
139	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/7/2015	10- 40	No	INC	21	3:54	23:59
140	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/8/2015	20- 72	No	INC	1	0:00	0:04
141	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/9/2015	10- 90	No	INC	24	0:00	23:44
142	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/10/2015	20- 60	No	INC	23	1:15	0:14
143	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/11/2015	15- 120	No	INC	16	9:45	0:59
144	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/12/2015	20- 120	No	INC	24	0:35	23:59
145	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/13/2015	20- 30	No	INC	21	3:00	23:59
146	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/14/2015	32- 45	No	INC	18	1:00	18:04
147	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/17/2015	20- 90	No	INC	19	5:00	23:59
148	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/18/2015	29- 110	No	INC	18	4:10	21:59
149	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/19/2015	30- 45	No	INC	23	1:50	23:59
150	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/20/2015	20- 110	No	INC	1	0:00	0:59
151	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/21/2015	20- 40	No	INC	21	1:00	21:29
152	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/22/2015	20- 28	No	INC	7	1:25	7:59
153	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/24/2015	55	No	INC	12	11:50	22:59
154	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/25/2015	12- 110	No	INC	22	1:20	22:59
155	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/26/2015	30- 88	No	INC	5	19:15	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
156	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/27/2015	48- 100	No	INC	13	11:35	23:59
157	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/28/2015	50	No	INC	3	20:31	23:29
158	RT	Planned Transmission Outage and Constraint	N/A	N/A	8/29/2015	20	No	INC	7	1:30	7:59
159	RT	Planned Transmission Outage and Constraint	PG&E	Bay Area	8/3/2015	490- 565	No	INC	7	8:05	14:44
160	RT	Planned Transmission Outage and Constraint	PG&E	Bay Area	8/7/2015	410	No	INC	2	17:10	18:59
161	RT	Planned Transmission Outage and Constraint	PG&E	Bay Area	8/17/2015	19	No	INC	8	12:50	19:59
162	RT	Planned Transmission Outage and Constraint	PG&E	Bay Area	8/18/2015	19	No	INC	5	17:00	21:59
163	RT	Planned Transmission Outage and Constraint	PG&E	Fresno	8/6/2015	20	No	INC	3	15:50	17:59
164	RT	Planned Transmission Outage and Constraint	PG&E	Fresno	8/18/2015	200	No	INC	2	16:25	17:59
165	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/4/2015	20- 38	No	INC	19	6:33	0:59
166	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/5/2015	14- 65	No	INC	23	1:00	23:44
167	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/6/2015	40- 60	No	INC	23	1:45	23:59
168	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/7/2015	30- 40	No	INC	21	3:38	23:59
169	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/8/2015	30- 66	No	INC	1	0:05	0:29
170	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/9/2015	20- 60	No	INC	24	0:00	23:44
171	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/10/2015	20- 42	No	INC	23	1:40	0:14
172	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/11/2015	16- 80	No	INC	8	17:15	0:44
173	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/12/2015	20- 25	No	INC	23	0:30	22:59
174	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/13/2015	20	No	INC	21	3:00	23:59
175	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/14/2015	15- 120	No	INC	17	1:15	18:04
176	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/17/2015	24- 120	No	INC	19	5:03	23:59
177	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/18/2015	29- 42	No	INC	18	4:10	21:59
178	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/19/2015	30- 45	No	INC	23	1:50	23:59
179	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/20/2015	20- 30	No	INC	1	0:00	0:59
180	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/21/2015	20- 40	No	INC	24	1:00	0:59
181	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/22/2015	20	No	INC	24	0:45	0:44
182	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/25/2015	30- 40	No	INC	17	6:55	22:59
183	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/26/2015	40	No	INC	5	8:05	12:59
184	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/27/2015	36- 96	No	INC	21	3:10	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
185	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/28/2015	20- 34	No	INC	23	1:15	23:29
186	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/29/2015	55- 65	No	INC	16	9:05	0:29
187	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/30/2015	12- 26	No	INC	21	1:35	22:29
188	RT	Planned Transmission Outage and Constraint	PG&E	Humboldt	8/31/2015	12- 40	No	INC	22	2:00	23:44
189	RT	Planned Transmission Outage and Constraint	PG&E	Kern	8/11/2015	11	No	INC	7	9:45	15:59
190	RT	Planned Transmission Outage and Constraint	PG&E	Kern	8/18/2015	32	No	INC	8	14:50	21:59
191	RT	Planned Transmission Outage and Constraint	PG&E	Kern	8/24/2015	32	No	INC	6	15:18	20:29
192	RT	Planned Transmission Outage and Constraint	PG&E	Kern	8/25/2015	32	No	INC	6	15:35	20:59
193	RT	Planned Transmission Outage and Constraint	PG&E	Kern	8/26/2015	32	No	INC	6	16:12	21:59
194	RT	Planned Transmission Outage and Constraint	PG&E	Kern	8/28/2015	32	No	INC	4	16:53	19:59
195	RT	Planned Transmission Outage and Constraint	PG&E	N/A	8/3/2015	212	No	INC	9	13:43	21:59
196	RT	Planned Transmission Outage and Constraint	PG&E	N/A	8/12/2015	910	No	INC	2	21:00	22:44
197	RT	Planned Transmission Outage and Constraint	PG&E	N/A	8/14/2015	700- 800	No	INC	5	19:30	23:59
198	RT	Planned Transmission Outage and Constraint	PG&E	N/A	8/17/2015	760- 910	No	INC	11	12:40	22:59
199	RT	Planned Transmission Outage and Constraint	PG&E	Sierra	8/3/2015	20- 30	No	INC	15	7:00	21:59
200	RT	Planned Transmission Outage and Constraint	PG&E	Sierra	8/14/2015	20- 60	No	INC	3	19:11	21:14
201	RT	Planned Transmission Outage and Constraint	PG&E	Sierra	8/15/2015	42- 126	No	INC	9	8:58	17:29
202	RT	Planned Transmission Outage and Constraint	PG&E	Sierra	8/16/2015	42- 110	No	INC	13	9:25	21:59
203	RT	Planned Transmission Outage and Constraint	PG&E	Sierra	8/28/2015	40	No	INC	3	17:07	19:59
204	RT	Planned Transmission Outage and Constraint	PG&E	Stockton	8/29/2015	120- 169	No	INC	17	4:15	20:59
205	RT	Planned Transmission Outage and Constraint	SCE	Big Creek-Ventura	8/12/2015	650	No	INC	3	16:05	18:59
206	RT	Planned Transmission Outage and Constraint	SCE	Big Creek-Ventura	8/14/2015	350	No	INC	9	5:00	13:14
207	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/5/2015	22	No	INC	1	14:20	15:14
208	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/6/2015	63- 108	No	INC	9	7:30	15:59
209	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/10/2015	45	No	INC	7	13:46	19:59
210	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/13/2015	0	No	INC	3	16:15	18:44
211	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/18/2015	44	No	INC	9	9:20	17:59
212	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/19/2015	68- 148	No	INC	13	8:00	20:29
213	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/20/2015	80- 262	No	INC	15	5:00	19:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
214	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/21/2015	88	Yes	INC	11	9:00	19:59
215	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/22/2015	20	No	INC	15	5:00	19:59
216	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/23/2015	20	No	INC	6	4:00	9:59
217	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/24/2015	20-2100	No	INC	17	5:00	21:59
218	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/25/2015	63	No	INC	14	6:50	19:59
219	RT	Planned Transmission Outage and Constraint	SDG&E	San Diego-IV	8/29/2015	350	No	INC	8	11:23	18:59
220	RT	Software Limitation	N/A	N/A	8/16/2015	16	No	INC	1	2:10	2:44
221	RT	Software Limitation	PG&E	Bay Area	8/9/2015	250	No	INC	1	3:30	4:19
222	RT	Software Limitation	PG&E	Bay Area	8/28/2015	300-1100	No	INC	9	11:04	19:59
223	RT	Software Limitation	PG&E	Bay Area	8/29/2015	310	No	INC	4	1:15	4:59
224	RT	Software Limitation	PG&E	Fresno	8/4/2015	50	No	INC	4	20:00	23:59
225	RT	Software Limitation	PG&E	Fresno	8/6/2015	-312	No	INC	3	2:00	4:59
226	RT	Software Limitation	PG&E	Fresno	8/10/2015	50	No	INC	16	8:00	23:14
227	RT	Software Limitation	PG&E	Fresno	8/11/2015	50	No	INC	12	11:55	22:59
228	RT	Software Limitation	PG&E	Fresno	8/14/2015	50	No	INC	2	22:00	23:59
229	RT	Software Limitation	PG&E	Fresno	8/15/2015	50	No	INC	5	19:00	23:59
230	RT	Software Limitation	PG&E	Fresno	8/18/2015	83	No	INC	1	17:05	17:59
231	RT	Software Limitation	PG&E	Fresno	8/28/2015	98-1190	No	INC	5	10:57	15:29
232	RT	Software Limitation	PG&E	Fresno	8/29/2015	10	No	INC	7	13:24	19:59
233	RT	Software Limitation	PG&E	N/A	8/1/2015	197	No	INC	1	14:25	15:14
234	RT	Software Limitation	PG&E	N/A	8/28/2015	1210-1960	No	INC	9	11:06	19:59
235	RT	Software Limitation	PG&E	Stockton	8/28/2015	251	No	INC	5	11:16	15:44
236	RT	Software Limitation	PG&E	Stockton	8/29/2015	191	No	INC	9	12:00	20:59
237	RT	Software Limitation	SCE	Big Creek-Ventura	8/28/2015	400-1175	No	INC	5	10:58	15:44
238	RT	Software Limitation	SCE	Big Creek-Ventura	8/30/2015	0	No	INC	1	5:10	6:04
239	RT	Software Limitation	SCE	LA Basin	8/1/2015	20	No	INC	24	0:45	23:59
240	RT	Software Limitation	SCE	LA Basin	8/28/2015	123- 226	No	INC	5	11:09	15:59
241	RT	Software Limitation	SDG&E	San Diego-IV	8/23/2015	0	No	INC	3	5:00	7:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
242	RT	Software Limitation	SDG&E	San Diego-IV	8/26/2015	571	No	INC	3	21:00	23:59
243	RT	Software Limitation	SDG&E	San Diego-IV	8/28/2015	131-2452	No	INC	10	10:53	19:59
244	RT	Software Limitation	SDG&E	San Diego-IV	8/29/2015	131- 568	No	INC	8	13:10	20:44
245	RT	Software Limitation	SDG&E	San Diego-IV	8/30/2015	0	No	INC	1	0:00	0:54
246	RT	Start-Up Instructions	N/A	N/A	8/25/2015	23	No	INC	1	0:00	0:59
247	RT	Start-Up Instructions	PG&E	Fresno	8/6/2015	10- 50	No	INC	5	6:35	10:59
248	RT	Unit Testing	SCE	LA Basin	8/25/2015	350	No	INC	8	4:05	11:59



## 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 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 2, 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

## CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service lists in the above-referenced proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 15<sup>th</sup> day of October 2015.

*Is/ Anna Pascuzzo*  
Anna Pascuzzo