

May 15, 2009

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. ER08-1175-\_\_\_ and ER06-615-\_\_\_ Exceptional Dispatch and Market Disruption Reports

#### Dear Secretary Bose:

Pursuant to Paragraph 263 of the Federal Energy Regulatory Commission's (FERC or Commission) February 20, 2009, order in Docket Nos. ER08-1175 *et al.* and the Paragraph 29 in the March 9, 2009 order in ER06-615 *et al.* and Sections 34.9.4 and 7.7.15.4 of its FERC Electric Tariff, the California Independent System Operator Corporation (ISO or CAISO) respectfully submits for filing on an informational basis this report providing details concerning Exceptional Dispatches and Market Disruptions.

The Commission directed the ISO to file the initial Exceptional Dispatch and the Market Disruption reports with the Commission within 60 days of implementation of the ISO's new Market Redesign and Technology Upgrade (MRTU) and every 60 days thereafter.<sup>2</sup> In its March 23 compliance filing, the ISO proposed to file its first Exceptional Dispatch and Market Disruption report on May 15, 2009, well within the sixty-day directive, and then file the report every other month on the fifteenth of the month.<sup>3</sup> Subsequently, in its April 28, 2009 answer to comments and protests in the ER08-1175, the ISO proposed to file reports on a monthly basis on the 15<sup>th</sup>.

In accordance with the Commission's directive to file its first report within 60 days and consistent with the ISO's statements, this report covers the first 15 days of the ISO's new market design. Based on its revised proposal, the ISO intends to file its second report on June 15 unless otherwise directed by the Commission.

California Indep. Sys. Operator Corp., 126 FERC ¶ 61,150 (2009) (February 20 Order); California Indep. Sys. Operator Corp., 126 FERC ¶ 61,211 (2009) (March 9 Order).

See February 20 Order at P263 and March 9 Order at P 29.

<sup>&</sup>lt;sup>3</sup> See Compliance Filing, submitted on March 23, 2009 at page 13, Docket ER08-1175; and California Independent System Operator Corporation, Compliance Filing submitted on April 8, 2009, Docket No. ER06-615 at page 6.

#### **Exceptional Dispatch Report**

As directed by Paragraph 263 of the February 20 Order, the ISO added Section 34.9.4 to the CAISO Tariff. Section 34.9.4 requires the ISO to report on the "frequency, volume, costs, causes, and degree of mitigation of Exceptional Dispatches." In its April 28 answer to comments and protests, the ISO provided the following additional information concerning the level of detail the ISO intends to provide in the Exceptional Dispatch report:

- The frequency of Exceptional Dispatches (*i.e.*, the ISO will identify each Exceptional Dispatch and the date or dates on which it occurred);
- The gross volume in MW of the Exceptional Dispatch;
- The cause of the Exceptional Dispatch (*e.g.*, transmission outages on a particular line) and the reason that an Exceptional Dispatch was necessary;
- The cost of the Exceptional Dispatch, which would include Exceptional Dispatch Energy, Excess Cost Payments for Exceptional Dispatches, Exceptional Dispatch ICPM payments, and supplemental revenues;<sup>4</sup>
- The degree of mitigation achieved by the Exceptional Dispatch, *i.e.* whether any Exceptional Dispatch Bids were mitigated;
- The location of the exceptionally dispatched resources at the level of Local Reliability Area if relevant and applicable and to the extend such information is readily determinable; and
- The market in which the Exceptional Dispatch occurred.

This report provides information concerning all of the above items with two exceptions. First, as noted in footnote 22 of the ISO's April 28 answer, the May report does not include any cost data. The ISO intends to provide cost data for these first 15 days as soon as it has settlement quality data available. Second, the "degree of mitigation" is really only

The ISO notes that, until payment acceleration, settlement quality data for the Exceptional Dispatches discussed in the report will not be available in time to include it in the report. When settlement quality data is available, the ISO will include the details in the next available report. Once payment acceleration is in place, the cost data for the Exceptional Dispatches—based on estimated meter data—should be available in time to include it in the same report.

In this regard, the ISO notes that there were no Exceptional Dispatches that would have triggered the right to supplemental revenues during the first 15 days. Moreover, in its April 28 answer, the ISO proposed to report on any Exceptional Dispatch receiving an Interim Capacity Procurement Mechanism ("ICPM") designation through the ICPM reporting requirements, subject to proposed modifications concerning the timing of some of the requirements. Specifically, the ISO proposed to modify the timing of the issuance of Market Notice from two days from the ICPM designation to two days from the date the ISO discovers that it has made an Exceptional Dispatch ICPM. In addition, the ISO has proposed a single ICPM reporting requirement 20

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relevant as of Trading Days occurring on and after August 1, 2009 when only Bids for non-competitive constraints and Delta Dispatch will be mitigated. For the first four months, all Bids that are settled at the higher of Bid price, Resource Specific Marginal Price or Default Energy Bid are subject to Bid mitigation except for decremental Exceptional Dispatches.<sup>6</sup>

The ISO has endeavored to develop a comprehensive report itemizing all Exceptional Dispatches occurring in the first 15 days and believes that it is substantially complete and accurate. However, due to the fact that data gathering involved manual review of individual logs, the fact that logging practices are not automated and due to the fact that the post process review of market data to ensure quality is not complete as the timeline for the post process is aligned with the settlement cycle, it is possible that additional Exceptional Dispatches occurred during the fifteen day period. The ISO will republish revised versions of the attachments when it submits the cost data for this time period. Notwithstanding the ISO's inability to guarantee that it has captured all the relevant data, the ISO believes the information to be substantially complete and provides a reliable indication of the frequency and causes of Exceptional Dispatch during the first fifteen days of MRTU.

Attachment A includes an entry for each Exceptional Dispatch that occurred for Operating Days April 1 through April 15 and shows that there was a total of 223 Exceptional Dispatches. Each entry also indicates: (1) the date of the Exceptional Dispatch; (2) the reason for the Exceptional; (3) the location of the resource by Participating Transmission Owner area and the Local Capacity Requirements Area (if the Exceptional Dispatch was for local reasons); and the market in which the Exceptional Dispatch occurred. Many of the reasons are self explanatory and include transmission or generator outages, references to specific Operating Procedures, including T-138, G-219, over generation and resource ramping constraints. For the first two days of the ISO's new market design, ISO operators committed additional units to ensure a reliable transition from the zonal market to the nodal market. This practice is consistent with the ISO's implementation of significant market changes (i.e. Phase 1B). Moreover, this increased commitment was discussed with market participants during the Cutover & Reversion planning process. The reason indicated for these Exceptional Dispatches is "System-Capacity." "Software Limitation" includes a number of different instances where ISO Operators issued Exceptional Dispatches to augment or modify market results such as 1) to keep a resource on that had previously had a market dispatch to shutdown or was already subject to an Exceptional Dispatch but the software was instructing the resource to go to zero; 2) to reverse a market instruction to a unit that was either off or on to stay off or on when the software was trying to give an opposite instruction; and 3) to keep a unit off or on to manage the unit's start up and shut down requirements. The need for some of these Exceptional Dispatches has lead to recognition of

days following the end of the month in which the ICPM designation occurred. The ISO will be posting the April ICPM report on May 20<sup>th</sup> consistent with the notification posted on April 24, 2009.

Section 34.9.1 allows the CAISO to except a Bid from a Non-Dynamic System Resource, in which case the ISO will pay the resource as Bid without mitigation and without triggering any supplemental compensation in the form of ICPM payment or supplemental revenues.

A list of all of the ISO's Operating Procedures and all the publicly available Operating Procedures are available at the following link: http://www.caiso.com/thegrid/operations/opsdoc/index.html.

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variances that are being addressed. Other Exceptional Dispatches in this category relate to the fact that the software does not consider a long enough time horizon to manage resources' operating constraints. In the latter case, the ISO has already initiated a project to enhance the market software.

Attachment B shows the total MW volume of incremental and decremental Exceptional Dispatches by day. The volume includes capacity committed through Exceptional Dispatch commitments and well as Exceptional Dispatches of incremental and decremental Energy.

### **Market Disruption Report**

As directed in Paragraph 29 of the Commission's March 9 Order and Section 7.7.15.4 of the ISO submits this informational filing detailing the frequency and types of actions taken by the ISO pursuant to Section 7.7.15, as well as the nature of the market disruption and the rationale for taking such actions, including information about the Bids or Self-Schedules removed as a result of a Market Disruption under Section 7.7.15 (b) and well as the rational for the removal of any Bids under this section.

Attachment C includes an entry for each such reportable event by the date, hour ending, the type of CAISO Market, and a description of the nature of the Market Disruptions, the nature of the actions taken under Section 7.7.15 by the ISO, if any, the rationale, and the Market Disruption prevented or minimized as a result of such actions, if any.

With the receipt of the Commission's order imposing this reporting requirement less than one month before the start of MRTU, the ISO was not able to develop manual or automated procedures to efficiently collect the information requested. Therefore, it is possible that, despite the ISO's best efforts, this report may not include certain events the ISO would otherwise report pursuant to Section 7.7.15.4. Notwithstanding the ISO's inability to guarantee that it has captured all the relevant data, the ISO believes the information to be substantially complete and provides an accurate indication of Market Disruptions and actions taken under Section 7.7.15 of the ISO tariff. The ISO will report any missing reportable events it discovers after this filing in its next report to be filed on June 15, 2009. In addition, in light of the continuing nature of this reporting requirement, the ISO will continue to develop manual and automated procedures to enable it to prepare such reports more efficiently. Consequently, the presentation of future reports may differ from this one, but will contain no less information, unless otherwise ordered by the Commission.

| The table below | provides a sui | mmary of the $\epsilon$ | events reported | in Attachment C. |
|-----------------|----------------|-------------------------|-----------------|------------------|
|                 |                |                         |                 |                  |

| Type of CAISO Market              | Market Disruption or<br>Reportable Events | Removal of Bids<br>(including Self-<br>Schedules) |
|-----------------------------------|---|---|
| Day-Ahead                         |   | ,   |
| Integrated Forward Market         | 0   | 0   |
| Residual Unit Commitment          | 0   | 1   |
| Real-Time                         |   |   |
| Real-Time Pre-Dispatch Interval 1 | 4   | 0   |
| Real-Time Pre-Dispatch Interval 2 | 12  | 0   |
| Real-Time Pre-Dispatch Interval 3 | 12  | 0   |
| Real-Time Pre-Dispatch Interval 4 | 7   | 0   |
| Real-Time Dispatch                | 68  | 0   |

The majority of the Market Disruption events reported in Attachment C pertain to the timing out, missed runs or inability for the Real-Time Dispatch (RTD) to run. In many instances, it is not possible to determine with great precision why these five-minute intervals have failed. However, for each such entry in Table 1 of Attachment C, the ISO has provided an indication as to whether the RTD failed because of the run timed out, the RTD did not run in that interval, or the RTD failed to come up with a solution.

A number of Market Disruptions events are also reported for the Real-Time Pre-Dispatch (or as specified in the tariff Real-Time Unit Commitment) intervals, which includes the Hour-Ahead Scheduling Process in the second interval (RTPD (2)). These disruptions were largely due to the transfer of Bids or data into the RTPD which then led to a failure of the actual run. The ISO has developed manual and automated procedures to mitigate for this issue, to the extent feasible. The ISO also experienced a number of failures in the third interval of the RTPD (RTPD (3)) due to a software variance, which as since been fixed and has mitigated for the occurrence of such failures.

No reportable events occurred for the Integrated Forward Market (IFM). As shown in Table 2 of Attachment C, in one instance the ISO removed a RUC Availability Bid, where the ISO identified an infeasibility created due to conditions coming out of IFM where the effective lower operating limit was greater than the high operating limit when considering, up-rated minimum load, awarded Regulation up and down and other reserve quantities. The ISO modified the software to resolve this conflict, which should prevent such infeasibilities in the future.

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# /s/ Sidney M. Davies\_\_\_

Sidney M. Davies
Assistant General Counsel
Anna A. McKenna
Senior Counsel
California Independent System
Operator Corporation
151 Blue Ravine Road
Folsom, CA 95630

Tel: (916) 351-4400

#### **CERTIFICATE OF SERVICE**

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceeding, 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 May, 2009.

Isl Anna Pascuzzo
Anna Pascuzzo



## California Independent System Operator Corporation Exceptional Dispatch and Market Disruption Report May 15, 2009

Attachment A: Table of Exceptional Dispatches--April 1 through April 15

| Number   Date   Resource Location   1  |        | Attachme | ent A: Table of Exce | ptional DispatchesApri               | ii 1 through April 15 |  |  |
|--|--------|----------|----------------------|--------------------------------------|-----------------------|--|--|
| 2         4/1/2009         SDGE         Real-Time         Transmission_Outage_SDGE           3         4/1/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           5         4/1/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           6         4/1/2009         SDGE         Day Ahead         System_Capacity           7         4/1/2009         SCE         Day Ahead         System_Capacity           8         4/1/2009         SCE         Day Ahead         System_Capacity           9         4/1/2009         SCE         Day Ahead         System_Capacity           10         4/1/2009         SCE         Real-Time         Market_Disruption           11         4/1/2009         SCE         Day Ahead         System_Capacity           12         4/1/2009         SCE         Real-Time         Software_Limitation           13         4/1/2009         SCE         Real-Time         Software_Limitation           14         4/1/2009         PGAE/Humboldt         Real-Time         Software_Limitation           15         4/1/2009         PGAE/Humboldt         Real-Time         T-138           16         4/1/2009         PGAE         Real-Time   | Number | Date     | Resource Location    | Reason                               |                       |  |  |
| 3         41/12009         SDGE         Day Ahead         System_Capacity           4         41/12009         SDGE         Day Ahead         Transmission_Outage_SDGE           5         41/12009         SDGE         Real-Time         Ramp_Rate           6         41/12009         SDGE         Day Ahead         System_Capacity           7         41/12009         SCE         Day Ahead         System_Capacity           8         41/12009         SCE         Real-Time         Market_Disruption           10         41/12009         SCE         Real-Time         Market_Disruption           11         41/12009         SCE         Real-Time         Software_Limitation           12         41/12009         SCE         Real-Time         Software_Limitation           13         41/12009         SCE         Real-Time         Total           14         41/12009         PGAE         Real-Time         Total           16         41/12009         PGAE/Humboldt         Real-Time         Total           17         41/12009         PGAE/Humboldt         Real-Time         Total           18         41/12009         PGAE         Real-Time         Total   | 1      | 4/1/2009 | SCE                  | Real-Time                            | Software_Limitation   |  |  |
| 3         41/12009         SDGE         Day Ahead         System_Capacity           4         41/12009         SDGE         Day Ahead         Transmission_Outage_SDGE           5         41/12009         SDGE         Real-Time         Ramp_Rate           6         41/12009         SDGE         Day Ahead         System_Capacity           7         41/12009         SCE         Day Ahead         System_Capacity           8         41/12009         SCE         Real-Time         Market_Disruption           10         41/12009         SCE         Real-Time         Market_Disruption           11         41/12009         SCE         Real-Time         Software_Limitation           12         41/12009         SCE         Real-Time         Software_Limitation           13         41/12009         SCE         Real-Time         Total           14         41/12009         PGAE         Real-Time         Total           16         41/12009         PGAE/Humboldt         Real-Time         Total           17         41/12009         PGAE/Humboldt         Real-Time         Total           18         41/12009         PGAE         Real-Time         Total   | 2      | 4/1/2009 | SDGE                 | SDGE Real-Time Transmission Outage S |                       |  |  |
| 4         4/1/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           5         4/1/2009         SDGE         Real-Time         Ramp_Rate           6         4/1/2009         SDGE         Day Ahead         System_Capacity           7         4/1/2009         SCE         Day Ahead         System_Capacity           8         4/1/2009         SCE         Real-Time         Market_Disruption           10         4/1/2009         SCE         Real-Time         Software_Limitation           11         4/1/2009         SCE         Real-Time         Software_Limitation           12         4/1/2009         SCE         Real-Time         Software_Limitation           13         4/1/2009         SCE         Real-Time         Software_Limitation           14         4/1/2009         SCE         Day Ahead         System_Capacity           15         4/1/2009         PGAE/Humboldt         Real-Time         T-138           16         4/1/2009         PGAE/Humboldt         Real-Time         T-138           17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE         Real-Time         Software_Li  |        |          |                      | Day Ahead                            |                       |  |  |
| 5         4/1/2009         SDGE         Real-Time         Ramp_Rate           6         4/1/2009         SDGE         Day Ahead         System_Capacity           7         4/1/2009         SCE         Day Ahead         System_Capacity           8         4/1/2009         SCE         Day Ahead         System_Capacity           9         4/1/2009         SCE         Real-Time         Market_Disruption           10         4/1/2009         SCE         Real-Time         Software_Limitation           11         4/1/2009         SCE         Real-Time         Software_Limitation           12         4/1/2009         SCE         Real-Time         Software_Limitation           14         4/1/2009         SCE         Day Ahead         System_Capacity           15         4/1/2009         SCE         Day Ahead         System_Capacity           16         4/1/2009         PGAE         Real-Time         T-138           16         4/1/2009         PGAE/Humboldt         Real-Time         T-138           17         4/1/2009         PGAE         Real-Time         T-138           18         4/1/2009         PGAE         Real-Time         Software_Limitation  |        |          |                      |                                      |                       |  |  |
| 6         4/1/2009         SDGE         Day Ahead         System_Capacity           7         4/1/2009         SCE         Day Ahead         System_Capacity           8         4/1/2009         SCE         Day Ahead         System_Capacity           9         4/1/2009         SCE         Real-Time         Market_Disruption           10         4/1/2009         SCE         Real-Time         Software_Limitation           11         4/1/2009         SCE         Day Ahead         System_Capacity           12         4/1/2009         SCE         Real-Time         Software_Limitation           13         4/1/2009         SCE         Day Ahead         System_Capacity           14         4/1/2009         SCE         Day Ahead         System_Capacity           15         4/1/2009         PGAE/Humboldt         Real-Time         Software_Limitation           17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE/Humboldt         Real-Time         T-138           19         4/1/2009         PGAE         Real-Time         Software_Limitation           24         4/1/2009         PGAE         Day Ahead         Syst  |        |          |                      | -                                    |                       |  |  |
| 7         4/1/2009         SCE         Day Ahead         System_Capacity           8         4/1/2009         SCE         Day Ahead         System_Capacity           9         4/1/2009         SCE         Day Ahead         System_Capacity           10         4/1/2009         SCE         Day Ahead         System_Capacity           11         4/1/2009         SCE         Real-Time         Software_Limitation           13         4/1/2009         SCE         Real-Time         Software_Limitation           14         4/1/2009         SCE         Day Ahead         System_Capacity           15         4/1/2009         PGAE/Humboldt         Real-Time         Software_Limitation           17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE/Humboldt         Real-Time         T-138           19         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Real-Time         Software_Limitation           21         4/1/2009         PGAE         Real-Time         Software_Limitation           22         4/1/2009         PGAE         Day Ahead         System  |        |          |                      |                                      | •                     |  |  |
| 8         4/1/2009         SCE         Day Ahead         System_Capacity           9         4/1/2009         SCE         Real-Time         Market_Disruption           10         4/1/2009         PGAE         Real-Time         Software_Limitation           11         4/1/2009         SCE         Real-Time         Software_Limitation           12         4/1/2009         SCE         Real-Time         Software_Limitation           13         4/1/2009         SCE         Day Ahead         System_Capacity           14         4/1/2009         SCE         Day Ahead         System_Capacity           15         4/1/2009         PGAE/Humboldt         Real-Time         T-138           16         4/1/2009         PGAE/Humboldt         Real-Time         Software_Limitation           17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Real-Time         Ramp_Rate           21         4/1/2009         PGAE         Day Ahead         System_Capacity           22         4/1/2009         PGAE         Day Ahead         System_Capac  |        |          |                      |                                      |                       |  |  |
| 9         4/1/2009         SCE         Real-Time         Market_Disruption           10         4/1/2009         PGAE         Real-Time         Software_Limitation           11         4/1/2009         SCE         Real-Time         Software_Limitation           12         4/1/2009         SCE         Real-Time         Software_Limitation           13         4/1/2009         SCE         Real-Time         Software_Limitation           14         4/1/2009         PGAE/Humboldt         Real-Time         T-138           15         4/1/2009         PGAE/Humboldt         Real-Time         Software_Limitation           17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE/Humboldt         Real-Time         T-138           19         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Day Ahead         System_Capacity           21         4/1/2009         PGAE         Real-Time         Software_Limitation           22         4/1/2009         Intertie         HASP         Market_Disruption           23         4/1/2009         Intertie         HASP   |        |          |                      | -                                    | , ,                   |  |  |
| 10   |        |          |                      |                                      | • • • •               |  |  |
| 11   |        |          |                      |                                      | •                     |  |  |
| 12   |        |          |                      |                                      |                       |  |  |
| 13   |        |          |                      |                                      |                       |  |  |
| 14         4/1/2009         SCE         Day Ahead         System_Capacity           15         4/1/2009         PGAE/Humboldt         Real-Time         T-138           16         4/1/2009         PGAE/Humboldt         Real-Time         Software_Limitation           17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Day Ahead         System_Capacity           21         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruptio  |        |          |                      |                                      |                       |  |  |
| 15         4/1/2009         PGAE         Real-Time         T-138           16         4/1/2009         PGAE         Real-Time         Software_Limitation           17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE/Humboldt         Real-Time         T-138           19         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Day Ahead         System_Capacity           21         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption  |        |          |                      |                                      |                       |  |  |
| 16         4/1/2009         PGAE         Real-Time         Software_Limitation           17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE         Real-Time         T-138           19         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Day Ahead         System_Capacity           21         4/1/2009         PGAE         Real-Time         Software_Limitation           22         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         PGAE         Day Ahead         System_Capacity           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption   |        |          |                      |                                      |                       |  |  |
| 17         4/1/2009         PGAE/Humboldt         Real-Time         T-138           18         4/1/2009         PGAE/Humboldt         Real-Time         T-138           19         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Day Ahead         System_Capacity           21         4/1/2009         PGAE         Real-Time         Software_Limitation           22         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disrupti  |        |          |                      |                                      |                       |  |  |
| 18         4/1/2009         PGAE         Real-Time         T-138           19         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Day Ahead         System_Capacity           21         4/1/2009         PGAE         Real-Time         Software_Limitation           22         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption   |        |          |                      |                                      |                       |  |  |
| 19         4/1/2009         PGAE         Real-Time         Ramp_Rate           20         4/1/2009         PGAE         Day Ahead         System_Capacity           21         4/1/2009         PGAE         Real-Time         Software_Limitation           22         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Li  |        |          |                      |                                      |                       |  |  |
| 20         4/1/2009         PGAE         Day Ahead         System_Capacity           21         4/1/2009         PGAE         Real-Time         Software_Limitation           22         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Soft  |        |          |                      |                                      |                       |  |  |
| 21         4/1/2009         PGAE         Real-Time         Software_Limitation           22         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Real-Time         S  |        |          |                      |                                      | •                     |  |  |
| 22         4/1/2009         PGAE         Day Ahead         System_Capacity           23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Real-Time         So  |        |          |                      |                                      |                       |  |  |
| 23         4/1/2009         Intertie         HASP         Market_Disruption           24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SCE         Real-Time   |        |          |                      |                                      |                       |  |  |
| 24         4/1/2009         Intertie         HASP         Market_Disruption           25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         Intertie         HASP         Market_Disruption           34         4/1/2009         Intertie         HASP         Market_Disruption           34         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Real-Time         Software_Limitation           35         4/2/2009         SCE         Real-Time         S  |        |          |                      | -                                    |                       |  |  |
| 25         4/1/2009         Intertie         HASP         Market_Disruption           26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         Intertie         HASP         Market_Disruption           34         4/2/2009         Intertie         HASP         Market_Disruption           34         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Real-Time         Software_Limitation           35         4/2/2009         PGAE         Real-Time   |        |          |                      |                                      | •                     |  |  |
| 26         4/1/2009         Intertie         HASP         Market_Disruption           27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         Intertie         HASP         Market_Disruption           34         4/1/2009         Intertie         HASP         Market_Disruption           33         4/1/2009         Intertie         HASP         Market_Disruption           34         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Real-Time         Software_Limitation           35         4/2/2009         SCE         Real-Time         Software_Limitation           36         4/2/2009         PGAE         Real-Time <t< td=""><td></td><td></td><td></td><td></td><td>•</td></t<>           |        |          |                      |                                      | •                     |  |  |
| 27         4/1/2009         Intertie         HASP         Market_Disruption           28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         SCE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE         Real-Time   |        |          |                      |                                      |                       |  |  |
| 28         4/1/2009         Intertie         HASP         Market_Disruption           29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SCE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SCE         Day Ahead         Transmission_Outage_SDGE           36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-T   |        |          |                      |                                      | •                     |  |  |
| 29         4/1/2009         Intertie         HASP         Market_Disruption           30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SCE         Day Ahead         Transmission_Outage_SDGE           36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-Time         Software_Limitation           43         4/2/2009         PGAE         Re   |        |          |                      |                                      | •                     |  |  |
| 30         4/1/2009         Intertie         HASP         Market_Disruption           31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SCE         Day Ahead         Transmission_Outage_SDGE           36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE         Real-Time         Software_Limitation           41         4/2/2009         PGAE         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-Time         Software_Limitation           43         4/2/2009         PGAE <td< td=""><td></td><td></td><td></td><td></td><td>•</td></td<> |        |          |                      |                                      | •                     |  |  |
| 31         4/1/2009         Intertie         HASP         Market_Disruption           32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SCE         Day Ahead         System_Capacity           36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE         Real-Time         Software_Limitation           41         4/2/2009         PGAE/Humboldt         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-Time         Software_Limitation           43         4/2/2009         PGAE         Real-Time         Software_Limitation   |        |          |                      |                                      | •                     |  |  |
| 32         4/1/2009         Intertie         HASP         Market_Disruption           33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE         Real-Time         Software_Limitation           41         4/2/2009         PGAE/Humboldt         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-Time         Software_Limitation           43         4/2/2009         PGAE         Real-Time         Software_Limitation           44         4/2/2009         PGAE         Real-Time         Software_Limitation  |        |          |                      |                                      | •                     |  |  |
| 33         4/2/2009         SCE         Real-Time         Software_Limitation           34         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE         Real-Time         Software_Limitation           41         4/2/2009         PGAE/Humboldt         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-Time         Software_Limitation           43         4/2/2009         PGAE         Real-Time         Software_Limitation           44         4/2/2009         PGAE         Real-Time         Software_Limitation  |        |          |                      |                                      | •                     |  |  |
| 34         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           35         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE/Humboldt         Real-Time         Software_Limitation           41         4/2/2009         PGAE/Humboldt         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-Time         Software_Limitation           43         4/2/2009         PGAE         Real-Time         Software_Limitation           44         4/2/2009         PGAE         Real-Time         Software_Limitation   |        |          |                      |                                      |                       |  |  |
| 35         4/2/2009         SDGE         Day Ahead         Transmission_Outage_SDGE           36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE/Humboldt         Real-Time         Software_Limitation           41         4/2/2009         PGAE/Humboldt         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-Time         Software_Limitation           43         4/2/2009         PGAE         Real-Time         Software_Limitation           44         4/2/2009         PGAE         Real-Time         Software_Limitation   |        |          |                      |                                      |                       |  |  |
| 36         4/2/2009         SCE         Day Ahead         System_Capacity           37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE/Humboldt         Real-Time         Software_Limitation           41         4/2/2009         PGAE/Humboldt         Real-Time         T-138           43         4/2/2009         PGAE         Real-Time         Software_Limitation           44         4/2/2009         PGAE         Real-Time         Software_Limitation  |        |          |                      |                                      |                       |  |  |
| 37         4/2/2009         SCE         Real-Time         Software_Limitation           38         4/2/2009         PGAE         Real-Time         Software_Limitation           39         4/2/2009         PGAE         Real-Time         Software_Limitation           40         4/2/2009         PGAE/Humboldt         Real-Time         T-138           41         4/2/2009         PGAE         Real-Time         Software_Limitation           42         4/2/2009         PGAE         Real-Time         Software_Limitation           43         4/2/2009         PGAE         Real-Time         Software_Limitation           44         4/2/2009         PGAE         Real-Time         Software_Limitation  |        |          |                      | -                                    |                       |  |  |
| 38       4/2/2009       PGAE       Real-Time       Software_Limitation         39       4/2/2009       PGAE       Real-Time       Software_Limitation         40       4/2/2009       PGAE/Humboldt       Real-Time       T-138         41       4/2/2009       PGAE       Real-Time       Software_Limitation         42       4/2/2009       PGAE/Humboldt       Real-Time       T-138         43       4/2/2009       PGAE       Real-Time       Software_Limitation         44       4/2/2009       PGAE       Real-Time       Software_Limitation   |        |          |                      |                                      |                       |  |  |
| 39       4/2/2009       PGAE       Real-Time       Software_Limitation         40       4/2/2009       PGAE/Humboldt       Real-Time       T-138         41       4/2/2009       PGAE       Real-Time       Software_Limitation         42       4/2/2009       PGAE/Humboldt       Real-Time       T-138         43       4/2/2009       PGAE       Real-Time       Software_Limitation         44       4/2/2009       PGAE       Real-Time       Software_Limitation  |        |          |                      |                                      |                       |  |  |
| 40       4/2/2009       PGAE/Humboldt       Real-Time       T-138         41       4/2/2009       PGAE       Real-Time       Software_Limitation         42       4/2/2009       PGAE/Humboldt       Real-Time       T-138         43       4/2/2009       PGAE       Real-Time       Software_Limitation         44       4/2/2009       PGAE       Real-Time       Software_Limitation   |        |          |                      |                                      |                       |  |  |
| 41 4/2/2009 PGAE Real-Time Software_Limitation 42 4/2/2009 PGAE/Humboldt Real-Time T-138 43 4/2/2009 PGAE Real-Time Software_Limitation 44 4/2/2009 PGAE Real-Time Software_Limitation   |        |          |                      |                                      | <del>-</del>          |  |  |
| 424/2/2009PGAE/HumboldtReal-TimeT-138434/2/2009PGAEReal-TimeSoftware_Limitation444/2/2009PGAEReal-TimeSoftware_Limitation  |        |          |                      |                                      |                       |  |  |
| 43 4/2/2009 PGAE Real-Time Software_Limitation 44 4/2/2009 PGAE Real-Time Software_Limitation  |        |          |                      |                                      |                       |  |  |
| 44 4/2/2009 PGAE Real-Time Software_Limitation   |        |          |                      |                                      |                       |  |  |
|  |        |          |                      |                                      |                       |  |  |
| 4E 4/0/0000 DCAE Deal Time Catture Limited and   |        |          |                      |                                      |                       |  |  |
|  | 45     | 4/2/2009 | PGAE                 | Real-Time                            | Software_Limitation   |  |  |
| 46 4/2/2009 PGAE Real-Time Software_Limitation   | 46     | 4/2/2009 | PGAE                 | Real-Time                            | Software_Limitation   |  |  |

| Number | Date     | Resource Location | Market    | Reason                   |
|--------|----------|-------------------|-----------|--------------------------|
| 47     | 4/2/2009 | SCE               | Real-Time | Software_Limitation      |
| 48     | 4/2/2009 | SCE               | Day Ahead | G-217                    |
| 49     | 4/2/2009 | Intertie          | HASP      | Market_Disruption        |
| 50     | 4/2/2009 | Intertie          | HASP      | Market_Disruption        |
| 51     | 4/2/2009 | Intertie          | HASP      | Market_Disruption        |
| 52     | 4/2/2009 | Intertie          | HASP      | Market_Disruption        |
| 53     | 4/3/2009 | SDGE              | Day Ahead | Transmission_Outage_SDGE |
| 54     | 4/3/2009 | SDGE              | Day Ahead | Transmission_Outage_SDGE |
| 55     | 4/3/2009 | SDGE              | Real-Time | Ramp_Rate                |
| 56     | 4/3/2009 | SDGE              | Real-Time | Ramp_Rate                |
| 57     | 4/3/2009 | SCE               | Real-Time | Software_Limitation      |
| 58     | 4/3/2009 | PGAE              | Real-Time | Software_Limitation      |
| 59     | 4/3/2009 | SDGE              | Real-Time | Software_Limitation      |
| 60     | 4/3/2009 | PGAE              | Day Ahead | Transmission_Outage_PGAE |
| 61     | 4/3/2009 | PGAE              | Day Ahead | Transmission_Outage_PGAE |
| 62     | 4/3/2009 | SDGE              | Real-Time | Software_Limitation      |
| 63     | 4/3/2009 | SCE               | Real-Time | Software_Limitation      |
| 64     | 4/4/2009 | PGAE              | Real-Time | Software_Limitation      |
| 65     | 4/4/2009 | PGAE              | Real-Time | Software_Limitation      |
| 66     | 4/4/2009 | SDGE              | Real-Time | Software_Limitation      |
| 67     | 4/4/2009 | PASA              | Real-Time | Software_Limitation      |
| 68     | 4/4/2009 | PASA              | Real-Time | Software_Limitation      |
| 69     | 4/4/2009 | PGAE              | Real-Time | Software_Limitation      |
| 70     | 4/4/2009 | PGAE              | Real-Time | Software_Limitation      |
| 71     | 4/4/2009 | PGAE              | Real-Time | Software_Limitation      |
| 72     | 4/4/2009 | PGAE              | Real-Time | Software_Limitation      |
| 73     | 4/4/2009 | SDGE              | Real-Time | Software_Limitation      |
| 74     | 4/4/2009 | SDGE              | Real-Time | Software_Limitation      |
| 75     | 4/4/2009 | PGAE              | Real-Time | Telemetry_Error          |
| 76     | 4/4/2009 | PGAE              | Real-Time | Telemetry_Error          |
| 77     | 4/4/2009 | PGAE              | Real-Time | Telemetry_Error          |
| 78     | 4/4/2009 | PGAE              | Real-Time | Telemetry_Error          |
| 79     | 4/4/2009 | Intertie          | HASP      | Market_Disruption        |
| 80     | 4/4/2009 | Intertie          | HASP      | Market_Disruption        |
| 81     | 4/4/2009 | Intertie          | HASP      | Market_Disruption        |
| 82     | 4/4/2009 | Intertie          | HASP      | Market_Disruption        |
| 83     | 4/4/2009 | Intertie          | HASP      | Market_Disruption        |
| 84     | 4/5/2009 | PGAE              | Real-Time | Generation_Outage_PGAE   |
| 85     | 4/5/2009 | PGAE              | Real-Time | Generation_Outage_PGAE   |
| 86     | 4/5/2009 | PGAE              | Real-Time | Generation_Outage_PGAE   |
| 87     | 4/5/2009 | PGAE              | Real-Time | Generation_Outage_PGAE   |
| 88     | 4/5/2009 |                   | Real-Time | Software_Limitation      |
| 89     | 4/5/2009 | PGAE              | Real-Time | Software_Limitation      |
| 90     | 4/5/2009 | PGAE              | Real-Time | Software_Limitation      |
| 91     | 4/5/2009 | SDGE              | Real-Time | Market_Disruption        |
| 92     | 4/5/2009 | SDGE              | Real-Time | Market_Disruption        |
| 93     | 4/5/2009 | PGAE              | Real-Time | Software_Limitation      |
| 94     | 4/6/2009 | SCE               | Day Ahead | G-219                    |
| 95     | 4/6/2009 | SDGE              | Day Ahead | Generation_Outage_SDGE   |
| 96     | 4/6/2009 | SDGE              | Day Ahead | G-219                    |
| 97     | 4/6/2009 | SDGE              | Day Ahead | Transmission_Outage_SDGE |

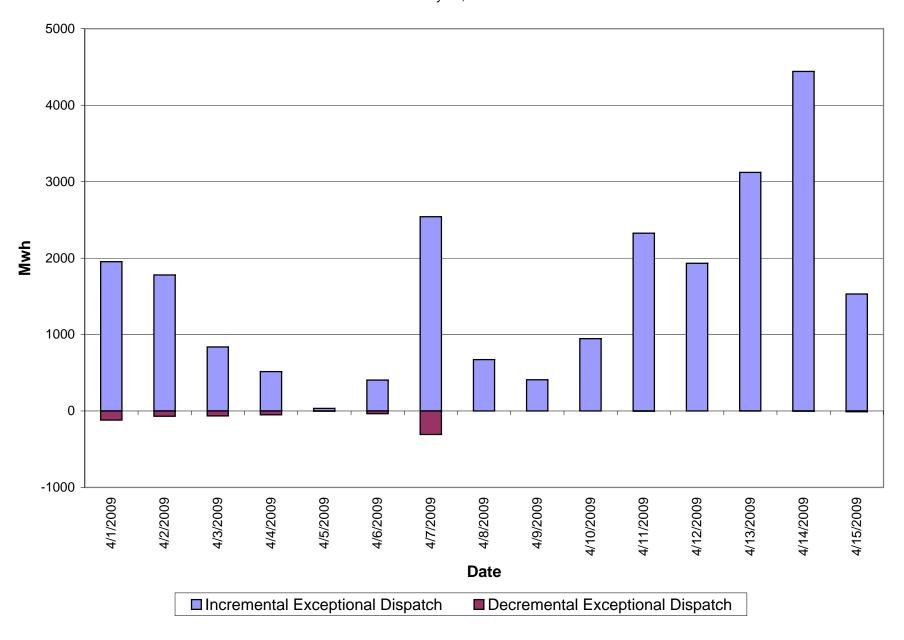
| Number | Date                   | Resource Location | Market                 | Reason                          |
|--------|------------------------|-------------------|------------------------|---------------------------------|
| 98     | 4/6/2009               | SDGE              | Day Ahead              | Transmission_Outage_SDGE        |
| 99     | 4/6/2009               | PGAE              | Real-Time              | Software_Limitation             |
| 100    | 4/6/2009               | PGAE              | Real-Time              | Software_Limitation             |
| 101    | 4/6/2009               | PGAE              | Real-Time              | Software_Limitation             |
| 102    | 4/7/2009               | SCE               | Day Ahead              | Transmission_Outage_SCE         |
| 103    | 4/7/2009               | SCE               | Day Ahead              | G-219                           |
| 104    | 4/7/2009               | SCE               | Real-Time              | Ramp_Rate                       |
| 105    | 4/7/2009               | SDGE              | Day Ahead              | Generation_Outage_SDGE          |
| 106    | 4/7/2009               | SDGE              | Day Ahead              | Generation_Outage_SDGE          |
| 107    | 4/7/2009               | SDGE              | Day Ahead              | Generation_Outage_SDGE          |
| 108    | 4/7/2009               | SCE               | Real-Time              | Software_Limitation             |
| 109    | 4/7/2009               | PGAE              | Real-Time              | Software_Limitation             |
| 110    | 4/7/2009               | SCE               | Real-Time              | Transmission_Outage_SCE         |
| 111    | 4/8/2009               | SCE               | Day Ahead              | G-219                           |
| 112    | 4/8/2009               | SDGE              | Day Ahead              | Transmission_Outage_SDGE        |
| 113    | 4/8/2009               | SDGE              | Day Ahead              | Transmission_Outage_SDGE        |
| 114    | 4/8/2009               | SCE               | Day Ahead              | Transmission_Outage_SCE         |
| 115    | 4/8/2009               | SCE               | Day Ahead              | Transmission_Outage_SCE         |
| 116    | 4/9/2009               | SCE               | Day Ahead              | G-219                           |
| 117    | 4/9/2009               | SDGE              | Day Ahead              | Transmission_Outage_SDGE        |
| 118    | 4/9/2009               | SDGE              | Day Ahead              | Transmission_Outage_SDGE        |
| 119    | 4/9/2009               | PGAE              | Real-Time              | Software_Limitation             |
| 120    | 4/9/2009               | PGAE              | Real-Time              | Software_Limitation             |
| 120    | 4/9/2009               | SCE               |                        |                                 |
| 121    | 4/9/2009               | SCE               | Day Ahead              | Transmission_Outage_SCE         |
| 123    |                        | SCE               | Day Ahead              | Transmission_Outage_SCE         |
| 123    | 4/9/2009<br>4/9/2009   | SCE               | Real-Time<br>Real-Time | Transmission_Outage_SCE         |
| 125    | 4/9/2009               | SDGE              |                        | Transmission_Outage_SCE         |
| 126    | 4/10/2009              | SCE               | Day Ahead              | Transmission_Outage_SDGE        |
| 126    |                        | SCE               | Day Ahead              | Transmission_Outage_SCE         |
| 127    | 4/10/2009<br>4/11/2009 | PGAE              | Day Ahead<br>Real-Time | Transmission_Outage_SCE Overgen |
|        |                        |                   |                        | •                               |
| 129    | 4/11/2009              | SDGE<br>PGAE      | Day Ahead              | Transmission_Outage_SDGE        |
| 130    | 4/11/2009              |                   | Day Ahead              | Transmission_Outage_PGAE        |
| 131    | 4/11/2009              | PGAE              | Day Ahead              | Transmission_Outage_PGAE        |
| 132    | 4/11/2009              | PGAE              | Real-Time              | Software_Limitation             |
| 133    | 4/11/2009              | PGAE              | Real-Time              | Software_Limitation             |
| 134    | 4/11/2009              | PGAE              | Real-Time              | Software_Limitation             |
| 135    | 4/11/2009              | PGAE              | Real-Time              | Software_Limitation             |
| 136    | 4/11/2009              | CWRP              | Real-Time              | Overgen                         |
| 137    | 4/11/2009              | PGAE              | Real-Time              | Overgen                         |
| 138    | 4/11/2009              | PGAE              | Real-Time              | Overgen                         |
| 139    | 4/11/2009              | PGAE              | Real-Time              | Overgen                         |
| 140    | 4/11/2009              | PGAE              | Real-Time              | Overgen                         |
| 141    | 4/11/2009              | PGAE              | Real-Time              | Overgen                         |
| 142    | 4/11/2009              | PGAE              | Real-Time              | Overgen                         |
| 143    | 4/11/2009              | PGAE              | Real-Time              | Overgen                         |
| 144    | 4/11/2009              | SCE               | Day Ahead              | Transmission_Outage_SCE         |
| 145    | 4/11/2009              | SCE               | Real-Time              | Overgen                         |
| 146    | 4/11/2009              | SCE               | Day Ahead              | Transmission_Outage_SCE         |
| 147    | 4/11/2009              | SCE               | Real-Time              | Overgen                         |
| 148    | 4/11/2009              | Intertie          | HASP                   | Market_Disruption               |

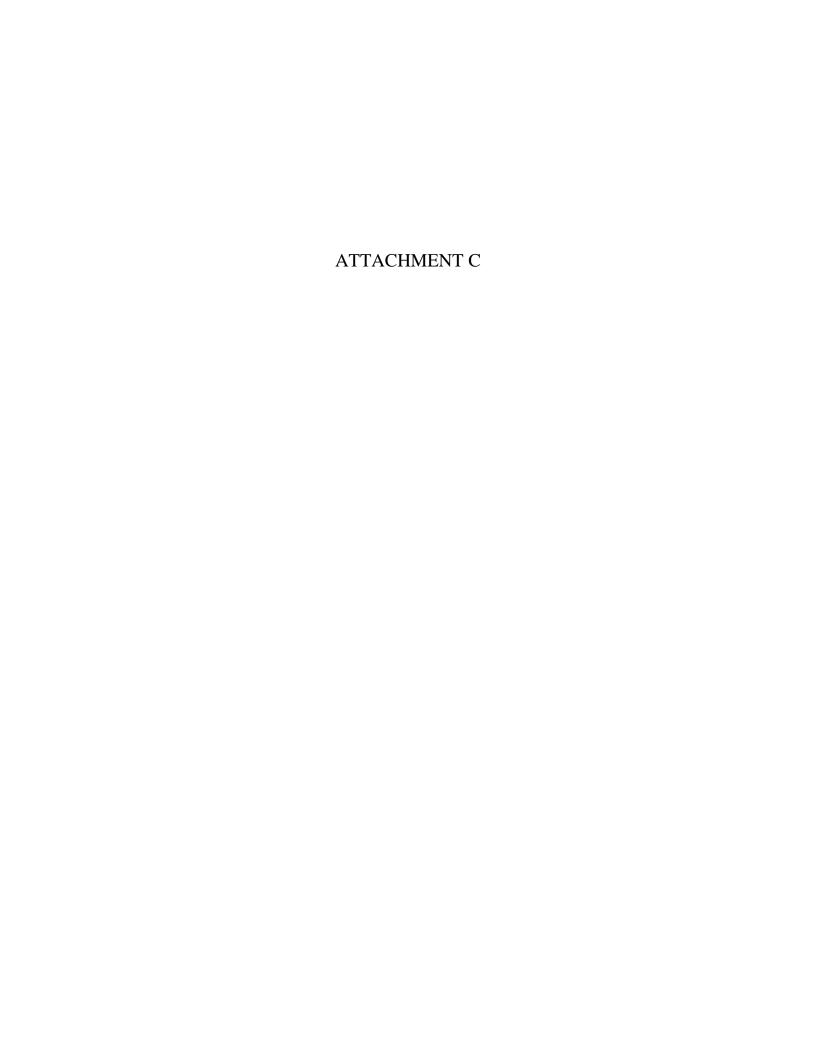
| Number | Date      | Resource Location | Market    | Reason                   |
|--------|-----------|-------------------|-----------|--------------------------|
| 149    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 150    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 151    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 152    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 153    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 154    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 155    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 156    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 157    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 158    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 159    | 4/11/2009 | Intertie          | HASP      | Market_Disruption        |
| 160    | 4/12/2009 | PGAE              | Real-Time | Market_Disruption        |
| 161    | 4/12/2009 | PGAE              | Real-Time | Market_Disruption        |
| 162    | 4/12/2009 | SDGE              | Day Ahead | Transmission_Outage_SDGE |
| 163    | 4/12/2009 | SCE               | Real-Time | Market_Disruption        |
| 164    | 4/12/2009 | PGAE              | Real-Time | Market_Disruption        |
| 165    | 4/12/2009 | SCE               | Day Ahead | Transmission_Outage_SCE  |
| 166    | 4/12/2009 | SCE               | Day Ahead | Transmission_Outage_SCE  |
| 167    | 4/13/2009 | SCE               | Day Ahead | G-219                    |
| 168    | 4/13/2009 | SCE               | Real-Time | Ramp_Rate                |
| 169    | 4/13/2009 | SDGE              | Day Ahead | Transmission_Outage_SDGE |
| 170    | 4/13/2009 | SDGE              | Real-Time | Software_Limitation      |
| 171    | 4/13/2009 | SDGE              | Day Ahead | Transmission_Outage_SDGE |
| 172    | 4/13/2009 | SDGE/San Diego    | Day Ahead | G-206                    |
| 173    | 4/13/2009 | PGAE              | Real-Time | Software_Limitation      |
| 174    | 4/13/2009 |                   | Real-Time | Ramp_Rate                |
| 175    | 4/13/2009 | SCE               | Real-Time | Transmission_Outage_SCE  |
| 176    | 4/13/2009 | SCE               | Day Ahead | Transmission_Outage_SCE  |
| 177    | 4/13/2009 | SCE               | Day Ahead | Transmission_Outage_SCE  |
| 179    | 4/14/2009 | SCE               | Day Ahead | G-219                    |
| 180    | 4/14/2009 | SCE               | Real-Time | Ramp_Rate                |
| 181    | 4/14/2009 | SCE               | Day Ahead | T-103                    |
| 182    | 4/14/2009 | SCE               | Real-Time | Ramp_Rate                |
| 183    | 4/14/2009 | PGAE              | Real-Time | System_Capacity          |
| 184    | 4/14/2009 | PGAE              | Real-Time | Market_Disruption        |
| 185    | 4/14/2009 | SCE               | Day Ahead | T-103                    |
| 186    | 4/14/2009 | SDGE              | Day Ahead | T-103                    |
| 187    | 4/14/2009 | SDGE/San Diego    | Day Ahead | G-206                    |
| 188    | 4/14/2009 | SDGE/San Diego    | Day Ahead | G-206                    |
| 189    | 4/14/2009 | SDGE              | Real-Time | Ramp_Rate                |
| 190    | 4/14/2009 | SCE               | Day Ahead | T-103                    |
| 191    | 4/14/2009 | SCE               | Real-Time | Ramp_Rate                |
| 192    | 4/14/2009 | SCE               | Real-Time | Ramp_Rate                |
| 193    | 4/14/2009 | SCE               | Day Ahead | T-103                    |
| 194    | 4/14/2009 | SCE               | Real-Time | Ramp_Rate                |
| 195    | 4/14/2009 | PGAE              | Real-Time | Market_Disruption        |
| 196    | 4/14/2009 | PGAE              | Real-Time | Market_Disruption        |
| 197    | 4/14/2009 | SCE               | Day Ahead | T-103                    |
| 198    | 4/14/2009 | SCE               | Real-Time | Market_Disruption        |
| 199    | 4/15/2009 | SCE               | Day Ahead | T-103                    |
| 200    | 4/15/2009 | SCE               | Day Ahead | G-219                    |
|        |           |                   |           |                          |

| Number | Date      | Resource Location | Market    | Reason                   |
|--------|-----------|-------------------|-----------|--------------------------|
| 201    | 4/15/2009 | SCE               | Real-Time | Ramp_Rate                |
| 202    | 4/15/2009 | SCE               | Day Ahead | Transmission_Outage_SCE  |
| 203    | 4/15/2009 | SCE               | Real-Time | Ramp_Rate                |
| 204    | 4/15/2009 |                   | Real-Time | Transmission_Outage_PGAE |
| 205    | 4/15/2009 |                   | Real-Time | Transmission_Outage_PGAE |
| 206    | 4/15/2009 | SCE               | Real-Time | Transmission_Outage_SCE  |
| 207    | 4/15/2009 | SCE               | Real-Time | Ramp_Rate                |
| 208    | 4/15/2009 | SDGE              | Day Ahead | Transmission_Outage_SCE  |
| 209    | 4/15/2009 | SDGE              | Day Ahead | Transmission_Outage_SDGE |
| 210    | 4/15/2009 | SDGE              | Day Ahead | Transmission_Outage_SDGE |
| 211    | 4/15/2009 | SDGE              | Real-Time | Ramp_Rate                |
| 212    | 4/15/2009 | SDGE              | Real-Time | Software_Limitation      |
| 213    | 4/15/2009 | SCE               | Day Ahead | T-103                    |
| 214    | 4/15/2009 | SCE               | Real-Time | Ramp_Rate                |
| 215    | 4/15/2009 | SCE               | Day Ahead | Transmission_Outage_SCE  |
| 216    | 4/15/2009 | SCE               | Real-Time | Ramp_Rate                |
| 221    | 4/15/2009 | SCE               | Day Ahead | Transmission_Outage_SCE  |
| 222    | 4/15/2009 | SCE               | Real-Time | Transmission_Outage_SCE  |
| 223    | 4/15/2009 | SCE               | Day Ahead | T-103                    |



#### California Independent System Operator Exceptional Dispatch and Market Disruption Report May 15, 2009





### California Independent System Operator Corporation Market Disruption Report May 15, 2009

Table 1: Market Disruptions, Nature of Actions Taken by the California ISO, Rationale and/or Market Disruption Prevented or Minimized as a Result of such Actions

| Date      | Hour | Interval | Market | Nature of Actions, Nature of Market Disruption, Rationale and/or Market Disruption Prevented or Minimized as   |
|-----------|------|----------|--------|--|
|           |      |          |        | a Result of such Actions   |
| 3/31/2009 | 24   | 2        | HASP   | HASP application timed out and did not complete in time for posting of HASP results. Market Disruptions limited to one HASP interval. ISO issued a Market Notification System instructing resources to follow Day-Ahead Schedules and Awards for interties. After the HASP application failure, ISO issued Exceptional Dispatches to System Resources and for exports at the interties using the list of Bids submitted in HASP. Exceptional Dispatches in HASP necessary to maintain system reliability in light of the fact that there was no clearing of the interties schedules through the HASP process. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes. |
| 4/1/2009  | 2    | 5        | RTD    | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/1/2009  | 6    |          | RTD    | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/1/2009  | 12   | 2        | HASP   | HASP application failure. HASP Bids did not transfer to market software in a timely manner. Market Disruptions limited to one interval. ISO issued a Market Notification System instructing resources to follow Day-Ahead Schedules and Awards for interties. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes.  RTPD(2) for that interval also failed because Bids did not transfer. Rely on the Day-Ahead AS awards. Published PNode clearing and resource Award payloads for all intervals this hour. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/1/2009  | 17   | 8        | RTD    | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/1/2009  | 20   | 2        | HASP   | HASP application failure. Market Disruptions limited to one interval. ISO issued a Market Notification System instructing resources to follow Day-Ahead Schedules and Awards for interties. After the HASP Application failure, the ISO issued Exceptional Dispatches to System Resources and for exports at the interties using the list of Bids submitted in HASP after the HASP failure. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes.   |
|           |      |          |        | RTPD(2) for that interval also failed because Bids did not transfer. Rely on the Day-Ahead AS awards. PNode clearing and resource Award from the Day-Ahead were used for this interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |

| 4/1/2009 | 20 | 3 | RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
|----------|----|---|------|---|
| 4/1/2009 | 20 | 4 | RTPD | Bids did not transfer in time for the RTPD (4) run and it therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/1/2009 | 21 | 2 | HASP | HASP application did not run because Bids did not transfer in time to HASP. Market Disruptions limited to one HASP interval. ISO issued a Market Notification System instructing resources to follow Day-Ahead Schedules and Awards for interties. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes.  RTPD(2) for that interval also failed because Bids did not transfer. PNode clearing and resource Award payloads for this interval was filled using Day-Ahead Awards. No instructions were sent to Scheduling Coordinators through ADS for this interval. |
| 4/1/2009 | 21 | 9 | RTD  | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.   |
| 4/1/2009 | 22 | 2 | HASP | 4/1/2009 Hour Ending 22:00 hours ISO issued a notice through the Market Notification Systems of a Market Disruption under Section 7.7.15 (d) that HASP/RTM market closure was moved to 00:35 as opposed to 00:45 to prevent an actual failure of the HASP runs. The revised closing time remained in effect until 4/2/2009 Hour Ending 13:00 hours; 4/2/2009 Hour Ending 14:00 hours was the first HASP/RTM interval that ran with the market closing of 00:45. This action prevented actual failures of HASP and RTM processes during these intervals.   |
| 4/1/2009 | 23 | 5 | RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/2/2009 | 10 | 4 | RTPD | RTPD (4) failed. Missing RTPD binding market clearing and PNode Clearing were filled from Day-Ahead resource awards for this interval. This is a known software variance that was fixed on 4/15/09  |

| 4/2/2009 | 11 | 2 HASP | HASP application timed out and did not complete in time for posting of HASP results. Market Disruptions limited to one HASP interval. ISO issued a notice through the Market Notification System instructing resources to follow Day-Ahead Schedules and Awards for interties. After the HASP application failure, ISO issued Exceptional Dispatches to System Resources and for exports at the interities using the list of Bids submitted in HASP. Exceptional Dispatches in HASP necessary to maintain system reliability in light of no clearing of the interties schedules through the HASP process. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes.  RTPD(2) for that interval also failed because Bids did not transfer. Pnode clearing and resource Award data was filled from Day-Ahead Awards for this intervals. No instructions were sent to Scheduling Coordinators through ADS for this interval. |
|----------|----|--------|--|
| 4/2/2009 | 11 | 3 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/2/2009 | 12 | 6 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/2/2009 | 15 | 5 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/2/2009 | 22 | 6 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/2/2009 | 23 | 5 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/3/2009 | 1  | 4 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/3/2009 | 2  | 11 RTD | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.  |
| 4/3/2009 | 2  | 12 RTD | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.  |
| 4/4/2009 | 18 | 3 RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.   |
| 4/4/2009 | 19 | 2 HASP | HASP application failed. Market Disruptions limited to one interval. ISO issued a notice through the Market Notification System instructing resources to follow Day-Ahead Schedules and Awards for interties. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes.  RTPD(2) for that interval also failed PNode clearing and resource Awards were filled using the Day-Ahead Awards for this interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.   |
| 4/4/2009 | 19 | 3 RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.   |
| 4/4/2009 | 20 | 1 RTPD | RTPD (1) did not run. PNode clearing and resource Award were filled from Day-Ahead Awards for this interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.   |
| 4/6/2009 | 10 | 7 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |

| 4/7/2009  | 1  | 5 RTD  | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.                          |
|-----------|----|--------|--|
| 4/7/2009  | 1  | 6 RTD  | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.                          |
| 4/7/2009  | 12 | 3 RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and |
|           |    |        | resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for   |
|           |    |        | this interval. Due to a known software variance.   |
| 4/7/2009  | 13 | 6 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/7/2009  | 13 | 3 RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and |
|           |    |        | resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for   |
|           |    |        | this interval.   |
| 4/7/2009  | 14 | 7 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/7/2009  | 14 | 9 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/8/2009  | 2  | 7 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/8/2009  | 10 | 9 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/8/2009  | 10 | 12 RTD | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/8/2009  | 24 | 2 HASP | HASP application failure. HASP Bids did not transfer to market software in a timely manner. Market Disruptions         |
|           |    |        | limited to one interval. ISO issued a Market Notification System instructing resources to follow Day-Ahead Schedules   |
|           |    |        | and Awards for interties. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead        |
|           |    |        | Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes.   |
|           |    |        | ,  |
|           |    |        | RTPD(2) for that interval also failed because Bids did not transfer. Rely on the Day-Ahead AS awards. Published        |
|           |    |        | PNode clearing and resource Award payloads for all intervals this hour. No instructions were sent to Scheduling        |
|           |    |        | Coordinators through ADS for this interval.  |
|           |    |        |  |
| 4/9/2009  | 1  | 3 RTPD | Data did not transfer RTPD (3) run failed. Day-Ahead AS awards for PNode clearing and resource awards were used        |
|           |    |        | to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.              |
| 4/9/2009  | 1  | 10 RTD | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.                          |
| 4/9/2009  | 1  | 11 RTD | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.                          |
| 4/10/2009 | 1  | 3 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/10/2009 | 2  | 4 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/10/2009 | 2  | 5 RTD  | RTD failed. Loss clearing payload and LMP filled in from last good interval.   |
| 4/10/2009 | 2  | 3 RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and |
|           |    |        | resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for   |
|           |    |        | this interval.   |
| 4/10/2009 | 23 | 3 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/10/2009 | 23 | 4 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.                               |
| 4/10/2009 | 23 | 5 RTD  | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.                          |
| 4/10/2009 | 24 | 6 RTD  | RTD broadcast missing. Loss clearing payload and LMP filled in with last good interval.                                |
| 4/10/2009 | 24 | 8 RTD  | RTD broadcast missing. Loss clearing payload and LMP filled in with last good interval.                                |
| 4/11/2009 | 3  | 4 RTPD | All broadcasts failed, therefore RTPD (4) was aborted. Day-Ahead AS awards for PNode clearing and resource awards      |
|           |    |        | were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.    |
|           |    |        |  |

| 4/11/2009 | 4  | 3 RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
|-----------|----|--------|---|
| 4/11/2009 | 6  | 4 RTPD | All broadcasts failed, therefore RTPD (4) was aborted. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.   |
| 4/11/2009 | 7  | 3 RTD  | RTD application timed out. Loss clearing payload and LMP filled in with last good interval.   |
| 4/11/2009 | 7  | 2 HASP | HASP application failure. All broadcast failure and therefore aborted. Market Disruptions limited to one interval. ISO issued a Market Notification System instructing resources to follow Day-Ahead Schedules and Awards for interties. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes.   |
|           |    |        | RTPD(2) for that interval also failed because Bids did not transfer. Rely on the Day-Ahead AS awards. Published PNode clearing and resource Award payloads for all intervals this hour. No instructions were sent to Scheduling Coordinators through ADS for this interval.   |
| 4/11/2009 | 8  | 8 RTD  | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.   |
| 4/11/2009 | 8  | 4 RTPD | Data did not transfer to RTPD (4) run and therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/11/2009 | 15 | 5 RTD  | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.   |
| 4/11/2009 | 15 | 6 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/11/2009 | 15 | 7 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/11/2009 | 15 | 8 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/11/2009 | 16 | 5 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/11/2009 | 16 | 6 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/11/2009 | 17 | 5 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/11/2009 | 17 | 10 RTD | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.   |
| 4/11/2009 | 17 | 11 RTD | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.   |
| 4/11/2009 | 17 | 12 RTD | RTD application did not run. Loss clearing payload and LMP filled in with last good interval.   |
| 4/11/2009 | 24 | 2 HASP | HASP application failure. All broadcasts failed and therefore had failure of the run (XSD issue). Market Disruptions limited to one interval. ISO issued a Market Notification System instructing resources to follow Day-Ahead Schedules and Awards for interties. Any incremental or decremental Real-Time Energy at the interties beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for Settlements purposes.  RTPD(2) for that interval also failed because Bids did not transfer. Rely on the Day-Ahead AS awards. Published PNode clearing and resource Award payloads for all intervals this hour. No instructions were sent to Scheduling Coordinators through ADS for this interval.  Software issue fixed on 4/12/2009. |

| 4/11/2009 | 24 | 3 RTPD | All broadcasts failure and therefore RTPD (3) run failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
|-----------|----|--------|---|
|           |    |        | Software issue fixed on 4/12/2009.  |
| 4/12/2009 | 1  | 1 RTPD | Bids did not transfer in time for the RTPD (1) run and it therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/12/2009 | 1  | 2 HASP | HASP application failure. HASP Bids did not transfer to market software in a timely manner. Market Disruptions limited to one interval. ISO issued a Market Notificiation System instructing resources to follow Day-Ahead Schedules and Awards for interties. After the HASP Application failure, the ISO issued Exceptional Dispatches to System Resources and for exports at the interities using the list of Bids submitted in HASP after the HASP failure. Exceptional Dispatches in HASP necessary to maintain system reliability in light of the fact that there was no clearing of the interties schedules through the HASP process. Any incremental or decremental Real-Time Energy at the intertes beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Ajustments (Tier 2) for Settlements purposes. |
|           |    |        | RTPD(2) for that interval also failed because Bids did not transfer. Rely on the Day-Ahead AS awards. Published Pnode clearing and resource Award payloads for all intervals this hour. No instructions were sent to Scheduling   |
| 4/12/2009 | 1  | 10 RTD | RTD broadcast missing. Loss clearing payload and LMP with last good interval.   |
| 4/12/2009 | 2  | 4 RTD  | RTD broadcast missing. Loss clearing payload and LMP with last good interval.   |
| 4/12/2009 | 21 | 4 RTD  | RTD failed. Loss clearing payload and LMP filled in from last good interval.  |
| 4/12/2009 | 21 | 5 RTD  | RTD failed. Loss clearing payload and LMP filled in from last good interval.  |
| 4/12/2009 | 21 | 6 RTD  | RTD failed. Loss clearing payload and LMP filled in from last good interval.  |
| 4/12/2009 | 21 | 3 RTPD | Bids deleted and had no broadcasts therefore RTPD (3) failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/12/2009 | 21 | 7 RTD  | RTD failed. Loss clearing payload and LMP filled in from last good interval.  |
| 4/12/2009 | 21 | 8 RTD  | RTD failed. Loss clearing payload and LMP filled in from last good interval.  |
| 4/12/2009 | 21 | 4 RTPD | Bids deleted and had no broadcasts therefore RTPD (4) run failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/13/2009 | 12 | 6 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/13/2009 | 23 | 3 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/13/2009 | 23 | 3 RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/13/2009 | 23 | 4 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/13/2009 | 23 | 5 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.  |
| 4/14/2009 | 18 | 10 RTD | RTD broadcast missing. Loss clearing payload and LMP with last good interval.   |
| 4/14/2009 | 18 | 11 RTD | RTD broadcast missing. Loss clearing payload and LMP with last good interval.   |
| 4/14/2009 | 18 | 12 RTD | RTD failed. Loss clearing payload and LMP filled in from last good interval.  |

| 4/14/2009   | 19 | 1 RTPD | Bids did not transfer in time for the RTPD (1) run and it therefore failed. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for this interval. |
|-------------|----|--------|--|
| 4/14/2009   | 23 | 3 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/15/2009   | 1  | 3 RTD  | RTD failed. Loss clearing payload and LMP filled in from last good interval.   |
| 4/15/2009   | 9  | 4 RTPD | RTPD (4) run timed out. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval.   |
| 1, 10, 2000 | Ĭ  |        | No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/15/2009   | 9  | 8 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/15/2009   | 9  | 9 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/15/2009   | 9  | 10 RTD | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/15/2009   | 9  | 11 RTD | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/15/2009   | 9  | 12 RTD | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/15/2009   | 10 | 1 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
| 4/15/2009   | 10 | 1 RTPD | RTPD (1) run timed out. Day-Ahead AS awards for PNode clearing and resource awards were used to fill the interval.   |
|             |    |        | No instructions were sent to Scheduling Coordinators through ADS for this interval.  |
| 4/15/2009   | 10 | 2 RTD  | RTD failed. Loss clearing payload and LMP filled in from last good interval.   |
| 4/15/2009   | 10 | 2 HASP | HASP application failure. Database issues. ISO issued a Market Notification System instructing resources to follow   |
|             |    |        | Day-Ahead Schedules and Awards for interties. Any incremental or decremental Real-Time Energy at the interties   |
|             |    |        | beyond the Day-Ahead Schedule that was not Dispatched by the ISO is treated as Operational Adjustments (Tier 2) for  |
|             |    |        | Settlements purposes.  |
|             |    |        |  |
|             |    |        | RTPD(2) for that interval also failed because Bids did not transfer. Rely on the Day-Ahead AS awards. Published  |
|             |    |        | PNode clearing and resource Award payloads for all intervals this hour. No instructions were sent to Scheduling  |
|             |    |        | Coordinators through ADS for this interval.  |
| 4/15/2009   | 19 | 3 RTPD | Bids did not transfer in time for the RTPD (3) run and it therefore failed. Day-Ahead AS awards for PNode clearing and   |
|             |    |        | resource awards were used to fill the interval. No instructions were sent to Scheduling Coordinators through ADS for   |
|             |    |        | this interval.   |
| 4/15/2009   | 23 | 3 RTD  | RTD application timed out. Loss clearing payload and LMP filled from last good interval.   |
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| RUC  | Removed a RUC Availability Bid that had flagged out in IFM and also removed the Regulation Down Bid. Infeasibility created due to conditions coming out of IFM where the effective lower operating limit was greater than the high operating limit when considering, up-rated minimum load, awarded Regulation up and down and other reserve quantities. Software modified to resolve this conflict should prevent such infeasibilities in the future.   |  |  |  |  |  |  |
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| on submitted<br>it Commitme<br>cast of dema<br>re-Dispatch<br>Bids, which<br>external res  | supply and deent (RUC): The and for every hand for the sources for the every hand for the every hand for the every hand for every hand for the every hand for every hand fo | emand bids<br>e Day-Ahea<br>our of the r<br>al 1: The fi<br>of the Real-<br>e next Tradi   | Market run in which the ISO conducts the market for purchases and sales of Energy for all hours of the next Trading and performs the procurement of Ancillary Services.  In Market run in which the ISO conducts unit commitment of additional resources based on submitted availability bids sext Trading Day.  In the ISO conducts the Market Power Mitigation Time Market processes for the given Trading Hour and the Hour-Ahead Scheduling Process (HASP), which applies to not Hour. In this interval the ISO also conducts the procurement of incremental Ancillary Services from internal  |  |  |  |  |
| Real-Time Pre-Dispatch (RTPD) Interval 2: The second of a series of four market runs conducted every Trading Hour during which the ISO conducts the HASP. In the HASP, the ISO conducts the procurement and sale of Energy and Ancillary services for the next Trading Hour from non-dynamic external resources based on submitted Bids and the demand forecast. In this interval the ISO also conducts the procurement of incremental Ancillary Services from internal resources and dynamic external resources for the given Trading Hour. |  |  |  |  |  |  |  |
| re-Dispatch<br>of internal S   | (RTPD) Interv  | Fast Start   | nird of a series of four market runs conducted every Trading Hour. During this interval the ISO conducts the Units for the Time Horizon of the Real-Time Unit Commitment, that is over four hours. In this interval the ISO also Services from internal resources and dynamic external resources for the given Trading Hour.   |  |  |  |  |
|  | orward Marken submitted it Commitme cast of demarer-Dispatch cexternal resid dynamic external for the given Tre-Dispatch of internal S   | coming out of awarded Reg the future.  broward Market (IFM): The en submitted supply and defit Commitment (RUC): The cast of demand for every heart of demand for every heart cast of demand for external resources for the heart cast of the heart cast | RUC  Removed a RUC Availate coming out of IFM where awarded Regulation up a the future.  Provided the future of th |  |  |  |  |