



California Independent
System Operator Corporation

October 12, 2011

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

**Re: California Independent System Operator Corporation
Docket Nos. ER08-1178-____, and EL08-88-____
120 Day Exceptional Dispatch Report**

Dear Secretary Bose:

Pursuant to the Commission's September 2, 2009 order in the above referenced dockets, the California ISO submits the attached report. The September 2 order directed the ISO to continue to file reports every 120 days that describe the status of the ISO's efforts to reduce the frequency of Exceptional Dispatch and the status of the ISO's development of operational and product enhancements that would reduce reliance on Exceptional Dispatch. The attached report provides an update of the ISO's efforts to meet the Commission's directives as set forth in the September 2 Order.

Respectfully submitted,

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Exceptional Dispatch Report

**Prepared by
California Independent System Operator**

October 12, 2011

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1. Introduction

This is the California ISO's seventh 120-day report. Previous 120-day reports are available on the ISO website.¹ This report provides information to the Commission and market participants on the measures the ISO is taking to reduce reliance on exceptional dispatch. This 120-day report covers a four-month reporting period with a three-month lag due to the availability of data. This report covers April 2011 through July 2011.

2. Exceptional Dispatch Data and Reports

Since the last 120-day report, the overall volume of exceptional dispatch has remained relatively constant during this reporting period averaging 0.34% of load, with a monthly average ranging from 0.16% in May 2011 to 0.44% in July 2011.

To comply with FERC directives and inform the market, the ISO produces extensive documentation on exceptional dispatch in addition to the 120-day reporting process. The principal reporting method for exceptional dispatch is through the two monthly reports: one filed on the 15th of every month and another filed on the 30th of every month. The monthly reports provide the market with the most recent summary of exceptional dispatch activity. The monthly reports are available on the ISO's website at:

<http://content.caiso.com/241d/241dca223c760.html>.

Table 1 Report. This report provides information on the frequency, quantity, and duration of exceptional dispatch. The report is based on a template specified in the September 2 Order as modified by the May 4 Order. Each line item entry is a summary of exceptional dispatches classified by (1) the reason for the exceptional dispatch; (2) the location of the resource by Participating Transmission Owner ("PTO") service area; (3) the Local Reliability Area ("LRA") where applicable; (4) the market in which the exceptional dispatch occurred (day-ahead vs. real-time); and (5) the date of the exceptional dispatch. For each classification the following information is provided: (1) Megawatts ("MW"); (2) Commitment (3) Inc or Dec (4) Hours; (5) Begin Time; and (6) End Time. Appendix A to the Table 1 Exceptional Dispatch Report contains three illustrative examples of how exceptional dispatch activity is captured in the report.

Table 2 Report. The Table 2 Report contains all the Table 1 Report fields in the same format, but adds ten additional columns to the report which include the six listed above as well as: (7) Total Volume (MWh); (8) Min Load Cost; (9) Start Up Cost; (10) Charge Code "CC" CC6470; (11) Exceptional Dispatch Volume (MWh INC/DEC); (12) CC6470 INC; (13) CC6470 DEC; (14) CC6482; (15) CC6488; and (16) CC6620.

The ISO also publishes a monthly market performance report at:

<http://content.caiso.com/2424/2424d03b3f610.html>. This monthly report highlights the frequency and cost of exceptional dispatch as a subset of the broader category of operator intervention. The report is published approximately three weeks after the end of every month and is based on preliminary settlement data available about 10 days after month end.

Additional information is also explained in greater detail in the Market Performance Metric Catalog which is issued on a monthly basis. This report provides the explanation and context

¹ ISO 120-day reports, <http://www.caiso.com/informed/Pages/RegulatoryFilingsAndOrders.aspx>.

for each market metric, including information on exceptional dispatch. It is available at: <http://content.caiso.com/2424/2424d14d4a200.html>.

The ISO also provides two regularly scheduled forums for discussing exceptional dispatch issues, among other issues: the bi-weekly market update call scheduled every other Thursday at 10:15 a.m. and the Market Performance and Planning Forum meetings held every six weeks. The market update call is available to address market participant questions on any topic, including exceptional dispatch. The Market Performance and Planning meetings provide for high-level dialogue on release planning, implementation and new market enhancements. Agenda include items of importance to stakeholders including the ISO’s progress on reducing reliance on exceptional dispatch. Meeting agenda, presentations, and stakeholder comments are posted on the Market Performance and Planning Forum webpage: <http://www.caiso.com/Documents/Market%20performance%20and%20planning%20forum>.

3. Actions to Address Exceptional Dispatch

This section describes the actions that have been taken since the last 120-day report to reduce exceptional dispatch, as well as actions that are currently underway or planned for future implementation. Updates to the actions in this section will be provided as developed through ISO Market Notices, the Market Performance and Planning Forum, the bi-weekly Market Update Call,² and through topic-specific ISO stakeholder initiatives.

Table 1 provides an overview of actions since the last 120-day report. Since the last 120-day report, the ISO has undertaken and implemented a number of actions to address and reduce exceptional dispatch. These actions are described in chronological order below. The numbering below continues from the last 120-day report.

Table 1: Actions to Address Exceptional Dispatch	
Date Implemented	Action
May 26, 2011	21. Automated Load Forecast System
TBD	23. Better Modeling Shutdowns Profile
First Phase implemented December 7, 2010	26. Day-Ahead Market Commitment Process Enhancements to reduce Cycling of Resources
Ongoing	27. Other Software Fixes
Ongoing	28. Market Model Improvements
Ongoing	29. Renewable Integration Market and Product Review

21. Automated Load Forecast System – This action was implemented in the real-time market on May 26, 2011 and improves load forecast accuracy by directly forecasting for each five- and 15-minute time target in the real-time market using the Automated Load Forecast System (“ALFS3”). It is expected that a direct forecast of five and 15-minute values will lead to a more accurate forecast, account for changing conditions and better reflect peaks and valleys of the forecast. It is expected that this direct forecast will improve load forecasting and will further improve consistency of forecast occurring in the hour-ahead scheduling process (“HASP”) time

² Market Update conference call, <http://www.caiso.com/23dc/23dc932e2b630.html>.

horizon (T-1.25 hours) with the Real-Time dispatch time horizon (T-5 minutes). In addition the direction five-minute forecast will allow for intra-hour peak conditions to be predicted. This improvement may help reduce the need for exceptional dispatch occurring after HASP to better align the intertie dispatch with changing load forecast conditions. The new ALFS will also improve the consistency between day-ahead and real-time load forecasts.

23. Better Modeling Shutdowns Profile – This action focuses on reducing the artificial ramp created by high Pmin units. Improving profile modeling will allow the ISO to better predict the imbalance energy impacts of resources shutting down that currently are assumed to shutdown instantaneously. The current instantaneous assumption results in a high burden on the ramping capability of a resource. An interim step was implemented in April 2011. Instead of directly modeling the shutdown profile by ramping down its output over a number of intervals, this interim approach adjust the RTD load downward to count for the energy surplus created by generation ramping down over 3 RTD intervals. This interim solution has proven to be effective in better representing the demand/supply balance during late evening hours, reducing the need to exceptionally dispatch generation to count for the supply inaccuracy caused by modeling generator shutdown in one RTD interval. The next step would be to directly model the shutdown of a generator by reducing its output over a number of RTD intervals, and may require more realistic input data from the Scheduling Coordinators. The implementation date for the direct approach has not yet been determined.

26. Day-Ahead Market Commitment Process Enhancements to reduce Cycling of Resources – The first phase of this action was implemented on December 7, 2010. To avoid unnecessary cycling of resources that can occur with a single-day commitment horizon the ISO is exploring a process enhancement concerning how initial conditions of a resource are determined. The ISO is taking two actions that are related to mitigation of cycling of resources in the Day-Ahead Market. First, the ISO implemented enhancements to the existing initial conditions process to allow resources that intend to stay online to inform the ISO of this intent prior to the ISO starting the next day's Day Ahead market process. Second, the ISO has started to explore the option to phase-in a multi-day unit commitment process first utilizing the deferred functionality that was intended to provide for optimal decisions regarding Extremely Long Start resources. This could possibly be combined with an extension of the existing Residual Unit Commitment process to evaluate 48 to 72 hour time horizon instead of the current 24 hours. This approach would provide benefits of incorporating a bridged commitment decision across off-peak hours, as well as setting up a more optimized input to initial conditions for the next day's Day-Ahead market input. The initial condition enhancement was activated on December 7, 2010, and the 72 Hour RUC project has started and is targeted for implementation in the latter half of 2011.

27. Other Software Fixes – At times, resource commitment status does not track with the schedule or actual telemetry. Until these issues are fully addressed, exceptional dispatch is a mechanism to force the resource status to the correct status. Several of these issues have been addressed and the ISO will continue to address these occurrences. This is an ongoing activity.

28. Market Model Improvements – The ISO plans to continue the efforts to expand the network modeling to include more transmission network, generation resources and loads external to the ISO Controlled Grid. Initial planning and conceptual design has started. This is an ongoing activity.

29. Renewable Integration Market and Product Review – The ISO is working with stakeholders on an initiative known as the Renewable Integration Market Product and Review (“RI-MPR”) initiative. In this effort the ISO and stakeholders are taking a comprehensive look at what new products might be necessary and appropriate in light of the ISO’s new market design and its renewable integration goals, and efforts here are expected to have a positive impact on reducing exceptional dispatch. As part of this effort, the ISO will develop new products to ensure that sufficient resources are available in the market to meet the increased variability that is expected on the grid compared to today. This effort also will put in place enhancements that will result in increased dispatch-ability for variable energy resources. Phase 1 of the effort addresses shorter-term issues, whereas Phase 2 addresses longer-term considerations. This is an ongoing activity.³

³ Information on Phase 1 can be found at <http://www.caiso.com/informed/Pages/StakeholderProcesses/RenewablesIntegrationMarketProductReviewPhase1.aspx>. Information on Phase 2 can be found at <http://www.caiso.com/informed/Pages/StakeholderProcesses/RenewablesIntegrationMarketProductReviewPhase2.aspx>.

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 proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 12th day of October, 2011.

Anna Pascuzzo
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