

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**California Independent System  
Operator Corporation**

**)Docket Nos. EC96-19-027, and  
)ER96-1666-028**

**STATUS REPORT ON PROGRESS ON A LONG TERM SOLUTION TO  
ADDRESS SHORTAGES IN REGULATION SERVICE BID INTO THE  
ANCILLARY SERVICES MARKET**

In accordance with the Commission's June 24, 1998, Order conditionally accepting the proposed tariff amendment, the California Independent System Operator Corporation ("ISO") provides the following report on the status of a long term solution to the shortages of bids for Regulation service in the ISO's Ancillary Services market.<sup>1</sup>

**I. BACKGROUND**

A. Amendment No. 8 to the ISO Tariff

On May 19, 1998, the ISO filed Amendment No. 8 to the ISO tariff consisting of a proposed interim Regulation Energy Payment Adjustment ("REPA") to address reliability problems due to insufficient Regulation Service bid into the ISO's Ancillary Services market. Regulation is essential to the reliability of the ISO Control Area and is called upon every hour of the day to allow the ISO to meet the North American Electric Reliability Council's Control Performance Standards and Western Systems Coordinating Council Minimum Operating Reliability Criteria for reliable control area operation. Accordingly, the lack of Regulation bids raised significant reliability concerns.

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<sup>1</sup> Except as noted, capitalized terms are defined in the Master Definitions Supplement, Appendix A to the ISO Tariff.

The proposed REPA payment was to be equal to the product of the energy potentially available in the Regulation bid (Regulation up plus Regulation down) and the greater of \$20/MWh or the Hourly Ex Post Price.<sup>2</sup> Both upward and downward Regulation capacity could be adjusted by a factor ("C") initially to be set at 1, but which could be adjusted down to zero.<sup>3</sup> Additionally, both upward and downward Regulation capacity could be adjusted by weighting factors. These weighting factors are published on the ISO Home Page and may be changed on a more frequent basis (i.e., more frequent than the ISO Board meetings). Neither the constants or weighting factors have been changed from their initial values of 100%. The proposed adjustments allowed the ISO to provide the necessary incentives to ensure that adequate resources are available for differing system conditions. The ISO stated that it would monitor the market closely to determine the impact of the REPA payments on the number and price of Regulation bids received.

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<sup>2</sup> The total energy available may be adjusted depending on the ISO's need for each direction of Regulation Service. Transmittal Letter at 17.

<sup>3</sup> Prior approval by the ISO Governing Board is required for any adjustments to the C factors.

B. The Commission's June 24, 1998 Order

The Commission determined that the proposed REPA formula represented a cost efficient and reasonable interim solution to the existing lack of sufficient Regulation bid into the ISO's Ancillary Service auction, and the increasing reliance on RMR Units. California Independent System Operator Corporation, 83 FERC ¶ 61,309, 62,271 (1998) ("June 24 Order"). The Commission accepted the proposed Amendment No. 8 for filing to become effective on May 19, 1998, as requested, subject to certain modifications.<sup>4</sup>

The Commission required the ISO to monitor the Regulation market and provide the Commission with a report 30 days after the date of the June 24 Order that included information on: (1) the quantities of Regulation bids, (2) any adjustments to the C factor and the affect such adjustment has on the Regulation bids, and (3) the use of weighting upward and downward Regulation and the affect such weighting has on the Regulation bids. Id. at 62,272.

The Commission recognized that the proposed Amendment was a short-term solution to the Regulation problem and that a long-term Regulation market redesign should be developed. Id. The Commission required that the ISO report on the progress of the long-term solution no later than 90 days from the date of the June 24 Order. Id.

C. Compliance Report

The ISO submitted its compliance filing on July 24, 1998. In addition to the revised tariff sheets, the filing included a report of the ISO's Market Surveillance Unit ("MSU") on the implementation of the REPA provisions. The MSU provided data on bid sufficiency both prior and subsequent to the

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<sup>4</sup> The Commission directed the ISO to file a clarification indicating that the upper range of the proposed weighting factor is limited to 100 percent of the ISO's hourly system need for Regulation and also to make certain typographical corrections. 83 FERC at 62,272.

Commission's June 24, 1998 Order. The MSU concluded that approval of the REPA provisions had "a significant impact on bidding in the Regulation market" and that bid sufficiency "improved substantially following implementation of REPA." Report at page 1. The MSU also informed the Commission that the ISO has not adjusted the weighting factors.

D. Other Events Since the June 24 Order

1. The July Price Spikes

There have been significant events concerning the ISO's Ancillary Services markets subsequent to the June 24 Order. On June 30, 1998, the Commission accepted, the proposed market-based rates for certain Ancillary Services filed by AES Redondo Beach, L.L.C., AES Alamitos, L.L.C., and AES Huntington Beach, L.L.C..<sup>5</sup> On July 10, 1998, the Commission issued two orders accepting for filing the proposed market-based rates for certain ancillary services filed by Long Beach Generation, LLC and El Segundo Power, LLC;<sup>6</sup> and Ocean Vista Power Generation, L.L.C., Mountain Vista Power Generation, L.L.C., Alta Power Generation, L.L.C., Oeste Power Generation, L.L.C., and Ormond Beach Power Generation, L.L.C.<sup>7</sup>

On July 1, 1998, because of locational requirements and, in certain instances, congestion problems, the ISO began procuring Ancillary Services on a zonal basis. On Thursday, July 9, 1998, in the Southern Zone, south of Path 15,<sup>8</sup> ("SP15"), prices for Replacement Reserves reached \$5,000/MW in three hours

<sup>5</sup> AES Redondo Beach, L.L.C., et al., 83 FERC ¶ 61,358 (1998).

<sup>6</sup> Long Beach Generation, L.L.C. et al., 84 FERC ¶ 61,011 (1998).

<sup>7</sup> Ocean Vista Power Generation, L.L.C., et al., 84 FERC ¶ 61,013 (1998).

<sup>8</sup> Path 15 is a major transmission line separating the Northern and Southern Zones.

and \$2,500/MW and \$750/MW in two other hours. For both Trading Days July 11 and 12, 1998, sufficient bids were submitted for Replacement Reserves.<sup>9</sup> For Trading Day July 13, 1998 the ISO once again had insufficient bids for Replacement Reserves in certain hours. Bids of \$9,999/MW set the market clearing price in the SP15 zone in hours 14 to 18.

In response to these price spikes the ISO and the Southern California Edison Company ("SoCal Edison") filed for emergency action regarding the Commission's orders in these proceedings. The ISO and SoCal Edison pleadings were supported by the California Electricity Oversight Board, the Public Utilities Commission of the State of California, and San Diego Gas & Electric Company.

2. The July 17, 1998 Order

On July 17, 1998 the Commission issued its Order Denying Motions for Stay, Authorizing the ISO to Take Interim Action, Requiring Market Monitoring Reports and Providing Opportunity to Comment. AES Redondo Beach, L.L.C., et al., 84 FERC ¶ 61,046. In view of the "serious concerns" raised, the Commission determined that further fact finding was necessary. Id. at 61,199. In the interim, the Commission authorized the ISO's rejection of bids in excess of whatever price levels it believes are appropriate for Regulation, Spinning Reserve, Non-Spinning Reserve, and Replacement Reserve. Id.

The Commission directed both the ISO and PX market surveillance committees "to each conduct an independent study of the bidding behaviors and structural characteristics of the markets that they each administer and to further clarify the causes of the perceived market concerns raised in the pleadings." Id. at 61,199-200.

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<sup>9</sup> Significantly, however, there were insufficient bids for Operating Reserves both days.

### 3. The ISO and PX Committee Reports

On August 17, 1998 and August 19, 1998, the Market Monitoring Committee of the California Power Exchange (“MMC”) and the Market Surveillance Committee of the ISO (“MSC”) filed their respective reports. The MSC Report identified nine underlying factors contributing to the inefficient operation of the ISO's Ancillary Service markets.<sup>10</sup> To resolve the problems the MSC recommended that the ISO: (1) adopt rational and transparent purchasing practices for Ancillary Services, seeking additional regulatory flexibility as needed; (2) revise and supplement the RMR contracts; (3) support the move towards market-based rates for all Market Participants, using the requirement that owners of significant amounts of generation capacity sign financial contracts for differences to mitigate their incentives to exercise market power in these markets; (4) retain the authority to impose a "damage control" price cap and exercise that authority until these markets are demonstrably competitive; (5) purchase Ancillary Services through a state-wide auction, using RMR Agreements to supplement zonal shortfalls in capacity; and (6) revise purchasing protocols to help reduce the need for Regulation services.

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<sup>10</sup> These were as follows: (1) some firms are subject to cost-based price caps while others are allowed to earn market-base rates; (2) the demand for Ancillary Services has been higher than anticipated; (3) the amount of each Ancillary Service demanded by the ISO does not depend on market prices and these demands are not procured in a rational manner; (4) perverse incentives guiding generator bidding behavior have been created by RMR Agreements; (5) the ISO has on many occasions purchased Ancillary Services separately in small geographic areas, increasing the potential for the exercise of market power; (6) the ISO's dispatch practices have not been transparent to Market Participants; (7) the allocation of Ancillary Service costs to Scheduling Coordinators has been flawed; (8) suppliers of Ancillary Services from outside the ISO Control Area have been excluded; and (9) the ISO's computer systems are still facing various software difficulties that are not yet fixed.

The MMC's Report included three main findings concerning the Ancillary Service markets in relation to the PX Energy markets. First, the MMC found that the PX Energy markets are themselves at times thin and not fully competitive and concluded that any actions taken by the ISO to improve the Ancillary Service markets should be carefully scrutinized to be sure they do not adversely affect the PX Energy markets. Second, the MMC's analysis of market share numbers indicated that, at certain levels in the aggregate supply curve, a very small number of firms have the effective ability to determine the prices in the Ancillary Service markets. Third, the MMC stated that the ISO's Ancillary Service markets are far from competitive equilibrium, because: (1) Ancillary Service capacity prices change radically while Energy prices follow a regular pattern and (2) Ancillary Service capacity prices are well above Energy prices.

The MMC offered a number of policy recommendations. First, it concluded that, in the short run, some intervention, such as a price cap, is needed in the Ancillary Service markets. Second, the MMC set forth a number of preconditions to competitive Ancillary Service markets, including: (1) additional supply of Ancillary Service capacity; (2) a mechanism to allow Ancillary Service demand to respond to price signals; (3) the development of proper incentives in RMR Agreements; (4) implementation of a rational buyer approach that may include buying Energy when it is cheaper than Ancillary Service Operating Reserve capacity; and (5) the removal of cost-based caps on Operating Reserve prices.

#### 4. The ISO Comment's On the Market Surveillance Committee Reports

On September 4, 1998, the ISO filed its comments on the MSC and MMC reports ("Comments"). The ISO recommended integrating, with two exceptions,

the MSC and MMC recommendations with the ongoing stakeholder process to improve the Ancillary Service Markets.<sup>11</sup> The ISO recommended that the Commission: (1) confirm and extend the ISO's authority to establish damage control price caps for Ancillary Services until such time as Ancillary Service markets are demonstrably functioning in a workably competitive manner; (2) permit the ISO to retain its central role as sponsor and facilitator of the Ancillary Service redesign process; and (3) endorse five key objectives for the redesign of Ancillary Service markets.<sup>12</sup>

## II. LONG TERM SOLUTIONS TO REGULATION SERVICE BIDS

The ISO is working together with its stakeholders on long term solutions to Regulation service as part of the overall process aimed at the integrated improvement of the Ancillary Service market design. The ISO believes that this is the appropriate forum to develop long-term solutions.

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<sup>11</sup> The ISO did not concur with the MSC's findings and recommendations with regard to the structure of the current RMR Agreements since they are the subject of an extensive and intense settlement effort at the Commission. The ISO also noted that the proposal to use RMR Agreements as local fill-in in the presence of congestion, following a statewide auction for all Ancillary Service, would expand the ISO's reliance on RMR Agreements beyond their stated purpose of ensuring System Reliability and stability.

<sup>12</sup> These objectives consisted of: (1) protecting consumers from excessive prices when markets are not competitive, including the maintenance of damage control price caps to protect buyers until they can protect themselves -- through self-provision of Ancillary Service, contracts for differences, long-term supply contracts, interruptible contracts, or other means; (2) eliminating cost-based rate caps on individual Generators to encourage competitive supply of Ancillary Service; (3) ensuring that damage control price caps do not inhibit investments in new capacity; (4) ensuring that damage control price caps do not bias market choices, but rather promote equilibration between markets; and (5) promoting the rational purchase of various Ancillary Service products – i.e., that superior services (such as spinning reserve) can substitute for inferior services (such as replacement reserve) where the prices for the inferior products are higher.

In its recent order approving Amendment No. 11 to the ISO tariff, the Commission agreed with the MSC's recommendation that further study was necessary "to better understand the very complex issues surrounding the provisions for Regulation service." California Independent System Operator Corporation, 84 FERC ¶ 61,234, Slip op. at 6 (1998). The ISO supports this conclusion. However, long term solutions to the sufficiency of Regulation bids cannot proceed in isolation. Consideration must be given to the larger market development process and the operations of the related Ancillary Service and Energy markets.

As the ISO stated in its Comments, it has commenced an integrated approach toward achieving long-term structural solutions for the Ancillary Service markets. The ISO is engaged in a collaborative and deliberative process that will solicit input from all interested parties and propose solutions by action of the stakeholder ISO Governing Board.

The ISO has combined the MSC and MMC recommendations with other initiatives currently underway and developed a work plan provided as Appendix C to the Comments. A copy of the work plan is attached to this submission. In the Comments, the ISO committed to provide the Commission by October 1, 1998 with an update in that docket: (1) on the status of short-term actions, with proposed ISO Tariff amendments if needed; (2) on any revisions to the work plan; and (3) on the status of the long-term Ancillary Service market redesign process.

The long term solution to the sufficiency of Regulation bids is part of the initiatives currently underway to address the full range of issues concerning the structure of the ISO Ancillary Service markets. The ISO is committed to working with stakeholders, in accordance with the work plan, to facilitate the achievement of workably competitive markets. As noted above, it is the intention of the ISO to provide regular reports to the Commission concerning the progress towards this objective.

Respectfully submitted,

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Dated: September 22, 1998

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, DC, this 22<sup>nd</sup> day of September, 1998.

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September 22, 1998September 22, 1998

The Honorable David P. Boergers  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: California Independent System Operator Corporation  
Docket No. EC96-19-027 and ER96-1663-028**

Dear Secretary Boergers:

Enclosed is an original and fourteen copies of the California Independent System Operator Corporation's Status Report on a Long Term Solution to Address Shortages in Regulation Service Bid Into the Ancillary Services Market.

Also enclosed is an extra copy of the filing to be time/date stamped and returned to us by the messenger. Thank you for your assistance.

Respectfully submitted,

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Enclosures