

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Curt Hébert, Jr., Chairman;  
William L. Massey, and Linda Breathitt.

San Diego Gas & Electric Company,  
Complainant,

v.

Docket No. EL00-95-017

Sellers of Energy and Ancillary Services  
Into Markets Operated by the California  
Independent System Operator and the  
California Power Exchange,  
Respondents.

Investigation of Practices of the California  
Independent System Operator and the  
California Power Exchange

Docket No. EL00-98-016

Arizona Public Service Company

Docket No. ER01-1444-000

Automated Power Exchange, Inc.

Docket No. ER01-1445-000

Avista Energy, Inc.

Docket No. ER01-1446-000

California Power Exchange Corporation

Docket No. ER01-1447-000

Duke Energy Trading and Marketing, LLC

Docket No. ER01-1448-000

Dynegy Power Marketing, Inc.

Docket No. ER01-1449-000

Nevada Power Company

Docket No. ER01-1450-000

Portland General Electric Company

Docket No. ER01-1451-000

Public Service Company of Colorado

Docket No. ER01-1452-000

Reliant Energy Services, Inc.

Docket No. ER01-1453-000

Docket No. EL00-95-017, et al.

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Sempra Energy Trading Corporation

Docket No. ER01-1454-000

Mirant California, LLC, Mirant Delta, LLC  
and Mirant Potrero, LLC

Docket No. ER01-1455-000

Williams Energy Services Corporation

Docket No. ER01-1456-000

ORDER DIRECTING SELLERS TO PROVIDE REFUNDS OF  
EXCESS AMOUNTS CHARGED FOR CERTAIN ELECTRIC ENERGY  
SALES DURING JANUARY 2001 OR, ALTERNATELY, TO PROVIDE  
FURTHER COST OR OTHER JUSTIFICATION FOR SUCH CHARGES

(Issued March 9, 2001)

Background

On August 23, 2000, the Commission issued an order instituting formal hearing proceedings under section 206 of the Federal Power Act to investigate the justness and reasonableness of the rates of public utility sellers into the California Independent System Operator (ISO) and the California Power Exchange (PX) markets, and also to investigate whether the tariffs, contracts, institutional structures and bylaws of the ISO and PX were adversely affecting the wholesale power markets in California.<sup>1</sup> On December 15, 2000, the Commission issued an order adopting specific remedies to address dysfunctions in California's wholesale bulk power markets and to ensure just and reasonable wholesale power rates by public utility sellers in California.<sup>2</sup>

In the December 15 order, among other things, the Commission established a \$150/MW "breakpoint" mechanism to ensure just and reasonable rates during the time it takes to effectuate long-term measures necessary to remedy market dysfunctions in California. The Commission stated that this \$150/MW breakpoint would be in place until May 1, 2001, at which time a "real time" price mitigation methodology would be implemented by the Commission. Under the \$150/MW breakpoint mechanism, which

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<sup>1</sup>San Diego Gas & Electric Company, et al., 92 FERC ¶ 61,172 at 61,606 (2000), reh'g pending.

<sup>2</sup>San Diego Gas & Electric Company, et al., 93 FERC ¶ 61,294 (2000), reh'g pending (December 15 Order).

became effective January 1, 2001, public utility sellers bidding at or below \$150/MW in the California ISO and PX real-time markets receive the market clearing prices, but not more than \$150 per MW. If public utility sellers bid above this breakpoint, and their energy is needed to clear the market, they receive their actual bids. However, beginning January 1, 2001, public utility sellers that bid above \$150/MW became subject to certain weekly reporting and monitoring requirements to ensure that market power would not be exercised and to ensure that rates remain just and reasonable. These public utility sellers' sales prices also are subject to potential refund; however, pursuant to the conditions in the December 15 order, unless the Commission issues written notification to a public utility seller within 60 days of each weekly reporting filing that the seller's transactions are still under review, refund liability for those transactions will automatically cease.

On March 1, 2001, the ISO and the California Electricity Oversight Board (collectively, California Parties) filed a motion which, among other things, suggests refunds in the ISO markets for the period of December 8, 2000, to January 31, 2001, of approximately \$550 million. California Parties indicate that for natural gas-fired plants within the ISO's control area, costs were estimated based on actual unit operating levels combined with estimated heat rates, spot market gas prices, and estimated NOx emission costs plus a ten percent or \$25/MWh adder, whichever was less. Further, for imports into the ISO control area, costs were estimated based on daily spot market gas prices and an average 12,000 Btu/kWh heat rate.<sup>3</sup>

### Discussion

The Commission has now received and reviewed generators' weekly transaction reports for the month of January 2001 as well as monthly reports submitted by the ISO and PX. During the course of analyzing the weekly transaction reports and the ISO and PX monthly reports, the Commission has determined that bids for certain transactions into the California ISO and PX markets have not been shown to be just and reasonable and, thus, that potential refunds are appropriate, absent the submission by the public utility sellers of cost or other justification for the prices charged.<sup>4</sup> As discussed below,

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<sup>3</sup>The California Parties raise other issues in this motion. We will address these issues in a future order.

<sup>4</sup>We note that there are discrepancies between the data submitted by the public utility sellers and the ISO and PX reports. For example, the ISO reported Imbalance Energy transactions in ten (10) minute increments (i.e. six transactions per hour) while sellers reported only hourly transactions. In this order we rely on data reported by the

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the Commission is establishing in this order a just and reasonable "rate screen" above which refunds will either be required or further investigation will be undertaken. The Commission has developed this screen by, in effect, establishing the market clearing price that would have occurred had the sellers bid their variable costs into a single price auction, which is what would have occurred had there been competitive forces at work.

In analyzing the reported bid data, and the system conditions that occur in ISO and PX markets, the Commission has determined that potential market power is most likely to be exercised during periods of the most severe supply/demand imbalance. Stage 3 Emergencies occur when operating reserves are at or below 1.5 percent of load and, therefore, represent the most severe supply/demand imbalance. The Commission has further determined that during Stage 3 Emergency conditions, a simple-cycle combustion turbine unit (CT) will be the marginal unit dispatched into the markets. Under optimum conditions, whereby every unit bids its variable cost, the CT would set the market clearing price under a single-price auction. Accordingly, the Commission has developed a proxy market clearing price of \$273/MWh during the hours in January 2001 in which an ISO-declared Stage 3 Emergency was in effect. This value is based on a hypothetical CT with a heat rate of 18,073 Btu/kWh as reported in the three IOUs' 1998 FERC Form No. 1. This hypothetical unit is based on the weighted-average of the least efficient gas turbines for each of the three California investor-owned utilities.<sup>5</sup> The resulting proxy clearing price of \$273/MWh is an accurate reflection of the inefficient generation which operated on the margin in California. This price should provide an incentive for new suppliers to enter the market with lower priced energy. Such entry will speed the replacement of older, inefficient generators and encourage construction of cleaner and

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<sup>4</sup>(...continued)  
ISO and PX.

<sup>5</sup>This value is derived from the weighted average use in 1998 of the Huntington Beach, Alamitos and Mandalay units as reported by SoCal Edison, the Oakland and Mobile Units II and III as reported by PG&E, and the Division, El Cajon and Keamy units as reported by SDG&E. *Environmental Action v. FERC*, 996 F.2d 401, 409 (D.C. Cir. 1993) (allowing average costs as a ceiling rate).

more efficient generators with lower heat rates.<sup>6</sup> This should speed up the process of allowing efficient supply to catch demand.

The variable cost of this hypothetical CT is based on: (1) a natural gas price of \$12.50/mmBtu which is the average of the reported January midpoint prices for "Southern California Gas Company large package" transactions as reported in Financial Times Energy's "Gas Daily" publication;<sup>7</sup> (2) average January NOx allowance costs from the Southern California Air Quality Management District NOx Auction of \$22.50/lb. as reported by Cantor Fitzgerald Environmental Brokerage Services; (3) an average NOx emissions rate of 2 lbs./MWh as reported by public utility sellers; and (4) variable O&M costs of \$2/MWh as reported by public utility sellers.<sup>8</sup>

Public utility sellers listed in Attachment A with transactions made above this proxy market clearing price while a Stage 3 Emergency was in effect are required to file notification with the Commission on or before March 23, 2001, that they will either: (1) refund the amounts in excess of the proxy market clearing price or offset such amounts against any amounts due and owed in the ISO (Energy, Out-of-Market, and Ancillary Services) and the PX (Day-Ahead and Day-of) markets for the month of January 2001; or (2) supply further cost or other justification for prices charged above the proxy market clearing price for the month of January 2001. Public utility sellers that elect the first option are required to concurrently file a compliance report identifying the transaction volumes by the individual ISO/PX markets (detailed by hourly amounts) and the individual amounts of refunds/offsets. The Commission will review and verify this

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<sup>6</sup>See Permian Basin Area Rate Cases, 390 U.S. 747, 796 (1968) (finding a maximum area rate "employed functionally, to encourage new supply was just and reasonable"). The Commission has historically set rates with an eye toward increasing supply. See generally Mobil Oil Exploration v. United Distribution, 498 U.S. 211, 215 - 17 (1991).

<sup>7</sup>The Gas Daily input used is the midpoint which is calculated for the common range which is built around the volume weighted average, paid in \$/mmBtu of a typical volume of 5 thousand mmBtu for deliveries at Topock, Daggett, Blythe, Needles, and Ehrenberg. These delivery points represent the most liquid trading points in southern California. The Commission commonly uses the Gas Daily index for tariff applications. See, e.g., Viking Gas Transmission Company, 67 FERC ¶ 61,251 (1994).

<sup>8</sup>We note that the California Energy Commission in the report "Market Clearing Prices Under Alternative Resource Scenarios 2000 to 2010," estimates variable O&M of \$2 to \$3/MWh.

information prior to forwarding it to the ISO and PX. Invoices that will be prepared by the ISO and PX for January 2001 transactions should be considered preliminary as further adjustments may be necessary.<sup>9</sup>

We note that the offset amounts, i.e. amounts due and owed, pursuant to this order are limited only to transactions occurring in January 2001. While our normal policy is to require interest on refunds pursuant to Section 35.19a of the regulations, in this case, where transactions are still in accounts receivable and offsets are used, interest is unnecessary. Interest on refunds for transactions that are subject to further analysis may be appropriate.

If public utility sellers with transactions made above the proxy market clearing price choose the second option, they will be notified to submit further and more detailed data justifying the applicable transactions. This notification requesting further data will also include any discrepancies between the ISO/PX data and the public utility seller data. Such transactions will continue to be subject to potential refund liability and the Commission will order refunds if, after examining the additional data, it finds the charges associated with any bids to be unjust and unreasonable.<sup>10</sup>

The Commission hereby announces that it will determine a proxy market clearing price for each month through April 2001, based on the above indices.<sup>11</sup> With respect to

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<sup>9</sup>On February 26, 2001, the PX submitted a compliance filing proposing a methodology to implement the \$150/MW breakpoint for recalculating January transactions. The PX has indicated that it intends to delay issuing January invoices pending Commission action on its filing. The Commission will address this filing in a separate order in the near future.

<sup>10</sup>Under either option discussed above, public utility sellers bidding above the \$150/MWh breakpoint will be required to continue reporting transaction data as discussed in the December 15 Order.

<sup>11</sup>In addition to the refund approach being adopted in this order, we are continuing to review any information brought to our attention with respect to the indicators of potential market power that were identified in our December 15 order: outage rates of sellers' resources; failure to bid unsold MWs into the ISO's real-time market; and variations in bidding patterns for the same or similar resources. In addition, we are continuing to review the status of generating units in California. See, e.g., "Report on Plant Outages in the State of California," prepared by the FERC Office of General

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transactions made after January 2001, the Director of the Commission's Office of Markets, Tariffs and Rates is hereby directed to issue a notice of the monthly proxy market clearing price within fifteen (15) days after the end of each calendar month.<sup>12</sup> Within seven (7) days after such notice is issued, public utility sellers with transactions made above the relevant proxy market clearing price are hereby required to inform the Commission of their chosen option, as discussed above, and to follow the procedures discussed above.

Finally, the Commission estimates that the use of a proxy market clearing price of \$273/MWh during the hours in January 2001 that a Stage 3 Emergency was in effect, will result in total potential refunds or offsets in the ISO and PX markets of approximately \$69 million.<sup>13</sup> With respect to the California Parties' calculations, we find that, for several reasons, they grossly overestimate the amount of refunds due. First, California Parties include approximately \$248 million of refund obligation for the period of December 8, 2000, through December 31, 2000, in their calculations.<sup>14</sup> Those transactions will be addressed by the Commission in a separate order. Second, for the January 2001 period, California Parties attribute approximately \$170 million of refund obligation to non-public utility sellers. The Commission has no authority to order such sellers to make refunds. Third, California Parties calculate their refunds based on all hours of January 2001, rather than only those hours under a Stage 3 Emergency (adding approximately \$31 million to their total). Finally, California Parties calculate their refunds on a variable cost as-bid basis, rather than the methodology established in this order, i.e., a proxy market clearing price approach.<sup>15</sup>

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<sup>11</sup>(...continued)

Counsel, Market Oversight and Enforcement, and the Office of Markets, Tariffs and Rates, Division of Energy Markets, February 1, 2001.

<sup>12</sup>Notice regarding transactions in February 2001 shall be issued within seven (7) days of the date of this order.

<sup>13</sup>The potential refunds owed by each public utility supplier is shown on Attachment A.

<sup>14</sup>The Commission has not yet addressed refunds for the period October 2 to December 31, 2000.

<sup>15</sup>Under the ISO's proposal, parties that receive variable costs plus ten percent or \$25/MWh whichever is less, may not recover their actual costs. Units that are not dispatched very often have fixed costs well in excess of \$25/MWh; thus, the ISO's

(continued...)

The Commission orders:

(A) Public utility sellers listed above must submit notification to the Commission on or before March 23, 2001 of their election option together with compliance reports where applicable, as discussed in the body of this order.

(B) Public utility sellers that elect to supply further data are notified that their transactions remain subject to refund.

By the Commission. Commissioner Massey dissented with a separate statement attached.

( S E A L )

David P. Boergers,  
Secretary.



## Attachment A

Transaction information filed by the ISO and PX is used to identify transactions at prices in excess of the \$273/MWh proxy clearing price and to estimate potential refunds. The following is a list of number and the value of potential refunds of transactions reported by the ISO and PX with a price greater than \$273/MWh made during hours in which the ISO called a Stage 3 Emergency. Since the ISO reported energy transactions in ten (10) minute increments, sellers may find that the number of transactions listed below is significantly higher than the number of hourly transactions they reported.

### Arizona Public Service Company

ISO Out-of-Market            3 transactions with a refund potential of \$2,800

### Automated Power Exchange, Inc.

PX Day-Ahead                30 transactions with a refund potential of \$1,607,048

### Avista Energy, Inc.

ISO Energy                    1 transaction with a refund potential of \$33,559

PX Day-Ahead                30 transactions with a refund potential of \$36,620

### California Power Exchange Corporation

ISO Energy                    105 transactions with a refund potential of \$378,614

### Duke Energy Trading and Marketing, LLC

ISO Energy                    328 transactions with a refund potential of \$17,075,250

ISO Out-of-Market           32 transactions with a refund potential of \$701,950

PX Day-Ahead                3 transactions with a refund potential of \$107,819

### Dynegy Power Marketing, Inc.

ISO Ancillary Services      37 transaction with a refund potential of \$60,190

ISO Energy                    6191 transactions with a refund potential of \$19,765,366

ISO Out-of-Market           4 transactions with a refund potential of \$14,974

PX Day-Ahead                160 transactions with a refund potential of \$2,615,356

### Nevada Power Company

PX Day-Ahead                2 transactions with a refund potential of \$12,006

### Portland General Electric Company

ISO Out-of-Market           51 transactions with a refund potential of \$1,447,426

PX Day-Ahead                41 transactions with a refund potential of \$1,709,868

PX Day-of                     7 transactions with a refund potential of \$31,700

Public Service Company of Colorado

ISO Out-of-Market            8 transactions with a refund potential of \$980

Reliant Energy Services, Inc.

ISO Energy                    2846 transactions with a refund potential of \$10,547,977

PX Day-Ahead                41 transactions with a refund potential of \$1,886,816

Sempra Energy Trading Corporation

ISO Energy                    130 transactions with a refund potential of \$480,914

Mirant California, LLC, Mirant Delta, LLC and Mirant Potrero, LLC

ISO Energy                    199 transactions with a refund potential of \$2,022,593

ISO Out-of-Market            2 transactions with a refund potential of \$19,673

PX Day-Ahead                19 transactions with a refund potential of \$143,793

Williams Energy Services Corporation

ISO Ancillary Services        2 transaction with a refund potential of \$1,402

ISO Energy                    2867 transactions with a refund potential of \$8,020,833

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Docket No. ER01-1456-000

(Issued March 9, 2001)

MASSEY, Commissioner, dissenting:

This order, limiting the potential for refunds to transactions that occurred during Stage 3 alert hours and bids in excess of a \$273 proxy market clearing price, is facially arbitrary, capricious and an abuse of discretion. Because I would not so limit the availability of refunds, I must respectfully dissent.

Sellers reported 70,300 transactions above the \$150 breakpoint for January, 2001. Of these, 13,149 occurred during Stage 3 hours. Simple math shows that 57,151 or fully 81% of the transactions above the \$150 breakpoint are by today's order categorically excluded from eligibility for refunds. They are arbitrarily given a free and clear certification. In addition, 7,793 of these excluded transactions, or almost 14%, are also above the \$273 proxy market clearing price, but are ignored because they are not Stage 3 transactions.<sup>1</sup> There is no logic to this methodology other than limiting the universe of potential refunds.

This methodology also departs from our December 15 order's description of how we would effectively monitor the market using the \$150 breakpoint consistent with our responsibility under the Federal Power Act to ensure that rates in the markets remain within a zone of reasonableness. The December 15 order stated:

"In implementing our monitoring, we will rely on several indicators of potential market power, including: the outage rates of the seller's resources, the failure to bid unsold MW's into the ISO's real-time market, and variations in bidding patterns for the same or similar resources (e.g., bidding large blocks of capacity at a low price and a small amount of capacity at a high power price for the purpose of setting the market clearing price for the entire amount)."<sup>2</sup>

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<sup>1</sup>I must also note that the \$273 proxy market clearing price would be excessive for periods of time for which more supply was available to the market because more efficient generating units would no doubt set the market clearing price.

<sup>2</sup>San Diego Gas & Electric Company, et al., 93 FERC ¶ 61,294 (2000), reh'g pending, at 61,996 and 61,997.

Yet, today's order makes absolutely no effort to apply these standards.<sup>3</sup> It assumes categorically, without further inquiry, that outage rates, withholding, and strategic bidding did not occur outside of Stage 3 hours. This methodology is fatally flawed.

Clearly market power can be exercised outside of Stage 3 conditions. Our staff's report that addressed the summer months of May to August 2000 noted evidence suggesting that sellers had the potential to exercise market power during the period.<sup>4</sup> Our December 15 order also affirmed our earlier finding that conditions in the California market have caused and have the potential to cause unjust and unreasonable rates for short-term energy. Yet there was only one Stage 3 alert in all of the year 2000, and it was declared in December and lasted only slightly more than two hours. If prices were unjust, unreasonable and potentially subject to refund when no Stage 3 alerts were occurring it seems irrational to limit refunds solely to Stage 3 hours.

The way I interpret our December 15 order, the \$150 breakpoint is itself intended to be the screen. That order said that in applying the \$150 breakpoint, we would examine market power, withholding and strategic bidding for every transaction over \$150.<sup>5</sup> Because we failed to do so, and categorically exclude 80% of transactions from examination, I dissent.

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William L. Massey  
Commissioner

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<sup>3</sup>I find footnote 11 in today's order, at best, confusing and it appears to contradict an express statement in the order that refund liability for transactions outside the screen will automatically cease.

<sup>4</sup>Staff Report to the Federal Energy Regulatory Commission on Western Markets and the Causes of the Summer 2000 Price Abnormalities - - Part 1, November 1, 2000 at 5-19.

<sup>5</sup>In a motion filed March 1, 2001, the California ISO and the Electricity Oversight Board requested the Commission to issue a notice indicating that bids above the \$150 breakpoint continue to be subject to review beyond the 60-day period pending review of the arguments they raise. Rather than issue today's order, I would have preferred an extension of time to give more thoughtful consideration to the arguments in that motion.