



August 16, 2002

The Honorable Magalie R. Salas  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: California Independent System Operator Corporation,  
Docket No. ER02-1656-000**

**Investigation of Wholesale Rates of Public Utility Sellers of  
Energy and Ancillary Services in the Western Systems  
Coordinating Council, Docket No. EL01-68-017**

Dear Secretary Salas:

The California Independent System Operator Corporation ("ISO")<sup>1</sup> respectfully submits fourteen copies of this filing in compliance with the Commission's July 17, 2002 "Order On the California Comprehensive Market Redesign Proposal," 100 FERC ¶ 61,060 (2002) ("July 17 Order"), issued in the above-referenced dockets.

## **I. BACKGROUND**

The instant compliance filing ("August 16 Compliance Filing") is in response to the July 17 Order addressing the ISO's May 1, 2002 filing of its Comprehensive Market Redesign Proposal ("May 1 MD02 Filing"). In the July 17 Order, the Commission also modified its West-wide market power mitigation program, and the ISO now proposes appropriate Tariff changes reflecting these directions as well.

---

<sup>1</sup> Capitalized terms not otherwise defined herein are used in the sense given in the Master Definitions Supplement, Appendix A to the ISO Tariff.

## **II. PROPOSED TARIFF CHANGES**

As described below, the ISO proposes changes to the ISO Tariff to comply with the July 17 Order. Descriptions of the forthcoming proposed Tariff modifications are contained in the following sections, whose headings reflect the relevant headings in the July 17 Order.

### **A. West-wide Mitigation Measures**

#### **1. Must Offer Obligation**

In its May 1 MD02 Filing, the ISO requested the Commission extend the existing price mitigation measures beyond the scheduled termination date of September 30, 2002. In the event the Commission declined to do so, the ISO proposed, as an alternative, that the Commission continue the Must Offer Obligation, which the ISO indicated would be implemented through the ISO's proposed residual unit commitment ("RUC") process rather than through the current waiver process, with two additional elements, a damage control bid cap and automatic bid mitigation. The Commission adopted the ISO request to extend the Must Offer Obligation, and directed that it be extended West-wide to the United States portions of the Western Electricity Coordinating Council ("WECC," formerly the Western System Coordinating Council ("WSCC")).

Since the Commission extended the Must Offer Obligation as currently implemented, rejecting the changes proposed by the ISO in the May 1 MD02 Filing, no Tariff changes are necessary to comply with the Commission's directive.

#### **2. Damage Control Bid Cap**

In its May 1 MD02 Filing, the ISO proposed a damage control bid cap, effective October 1, 2002, initially set at \$108/MWh, but subject to increase as triggered by increases in the price of natural gas. The ISO also proposed to increase the damage control bid cap when structural elements necessary for a competitive market were fully implemented. The Commission instead ordered the ISO implement a damage control bid cap of \$250/MWh on October 1, 2002 for bids into the Real Time and Ancillary Services Markets and that such a cap shall also apply for all sales in the WECC spot markets as well. The Commission directed the ISO to apply the damage control bid cap to the ISO's Day-Ahead Energy Market once that market is implemented.

Accordingly, the ISO has modified Section 28.1 of the Tariff to comply with the Commission's directives.

## **B. California Mitigation Measures**

### **1. Automatic Mitigation Procedures**

The ISO proposed to apply automatic mitigation procedures ("AMP") to the RUC process and the ISO's Real Time Imbalance Energy Market beginning on October 1, 2002, and to the Day-Ahead and Hour-Ahead Energy Markets once such markets are implemented. The MD02 AMP proposal contemplated two stages, one run at the close of the Day-Ahead Market and the second run at the close of the Hour-Ahead Market. The Commission approved AMP with certain modifications and conditions precedent. Specifically, the Commission modified the AMP proposal as submitted in the May 1 MD02 Filing to require: (1) the AMP conduct screen have a threshold equal to the lesser of a 200 percent increase or \$100/MWh increase relative to the resource's reference price; (2) the AMP market impact screen have a threshold equal to the lesser of a 200 percent increase or a \$50/MWh increase in the market clearing price; and (3) use of a third AMP screen, a market clearing price screen, with a threshold of \$91.87/MWh. In addition the Commission directed: 1) the ISO to submit quarterly reports on the impacts of the AMP process; 2) that AMP should be applied to hydroelectric generators and imports but "small portfolios" should be exempted once the proposed full network model is implemented; and, 3) that AMP applied at all Load levels, including ISO Control Area Load levels above 40,000 MW. Lastly, the Commission directed the ISO that it may not implement AMP until it has retained the services of a qualified independent organization to perform the task of determining reference prices for each generator in California and each Scheduling Coordinator providing Energy at each scheduling point across an inter-tie. The ISO already has issued a public Request for Bids and is under further direction to identify the entity duly selected by September 15, 2002. Moreover, on August 15, 2002, the ISO issued a clarifying Market Notice amending the Request for Bids to direct respondents to submit bids for calculation of reference prices on both a daily and monthly basis. The ISO will evaluate bids taking into account, among other things, the expense and administrative burden for calculating prices on a daily versus monthly basis. The ISO also will consider the feasibility and practicability of sending and receiving confidential data through a secure communication process on both a daily and monthly basis.

Critically, as discussed *supra* concerning the Must Offer Obligation and as is set forth in detail in the ISO's Request for rehearing and Clarification filed concurrently herewith, the Commission directed the ISO to run AMP when the ISO runs the transmission-constrained unit commitment software program

("TCUC") to support the Waiver decision process under the Must Offer Obligation. As detailed elsewhere, the Commission appears to be under the mistaken impression that the ISO employs TCUC or any other version of a unit commitment program (all of which necessarily consider economics) in making Waiver decisions. As the ISO set forth *supra* and has previously noted to the Commission, on December 19, 2001,<sup>2</sup> the Commission appeared to instruct the ISO to consider costs in making Waiver decision but then in its May 15, 2002 Order,<sup>3</sup> the Commission denied to the ISO the ability to include economic considerations in making Waiver decisions. Finally, in the July 17 Order, the Commission appears to conclude that the ISO can run the AMP screen using the TCUC software at the same time it runs the TCUC software for the Must Offer Obligation.<sup>4</sup> In fact, the ISO does not have TCUC software in use and so presently may be unable to fully comply with this aspect of the July 17 Order.

The ISO has modified items 1 and 2 in the second list under ISO Tariff Section 3.1.1 (a) to clarify that the ISO will use the monthly bid-week based proxy figure for natural gas costs (as approved by the Commission for use in calculating proxy prices during the market power mitigation period) to calculate a reference price level if the ISO does not sufficient bid data to determine a reference price using bid data.

The ISO has modified Sections 3.2.1 and 3.2.2.1 to clarify that AMP evaluates potential changes to the projected Hourly Ex Post Price based on the amount of Imbalance Energy the ISO expects to Dispatch. Using a projected price is necessary because the ISO will run AMP *before* Imbalance Energy is Dispatched. Using the Hourly Ex Post Price is necessary because the ISO's current software systems do not allow the ISO to mitigate a bid in one BEEP Interval within an hour but not another, *i.e.*, bids are mitigated for a full hour. The BEEP Interval Ex Post Price can be used for bids mitigated for local market power by AMP since those bids cannot set the market clearing price.

The ISO has modified Sections 3.1.1, 3.1.1.1, and 3.2.1 of Market and Monitoring Protocol Appendix A in compliance with the Commission's directives.

## **2. Residual Day-Ahead Unit Commitment Process**

The ISO proposed a Residual Day-Ahead Unit Commitment ("RUC") process to commit additional resources as needed to meet the ISO's forecast of the next day's Demand. As proposed in the May 1 MD02 Filing, if the ISO

---

<sup>2</sup> 97 FERC ¶ 61,293 (2001).

<sup>3</sup> 99 FERC ¶ 61,159 (2002).

<sup>4</sup> "The CAISO further indicates that software being used to [grant waivers of the Must Offer Obligation] makes use of Transmission Constrained Unit Commitment (TCUC) software." July 17 Order, 100 FERC at 61,245.

forecasts that there will not be enough Generation committed after the close of the Day-Ahead Market the ISO would run the RUC process to identify the most economical unit(s) to commit for additional capacity and would then pay such unit(s) for the costs incurred in making resources available to the ISO. The Commission rejected the RUC process for several reasons, including that the ISO did not need the RUC process because of the extension of the Must Offer Obligation, which the Commission appears to believe is a form of the RUC process, and, because as detailed herein, the Commission's incorrect belief that the ISO is currently using software to run a unit commitment program as a part of the Waiver decision process. As detailed *supra* the ISO has received conflicting orders concerning use of economic factors in making Waiver decisions under the Must Offer Obligation. In compliance with the May 15 Order, the ISO is not considering economics in the Waiver process and therefore is not using a unit commitment software program such as TCUC that uses economic factors. Finally, the Commission stated it rejected the RUC process because the ISO would be developing in the future some form of a "resource adequacy requirement," (such as a available capacity requirement). The ISO has sought rehearing and clarification on this issue.

Accordingly, the ISO has taken the following actions to comply with the Commission's rejection of the RUC process. The ISO withdraws proposed new Section 5.12, which contained the language implementing the RUC process. The ISO has modified Sections 5.13 (use of a single Energy bid curve), 11.2.4.1.2 (allocation of penalties for Uninstructed Deviations), and withdrawn proposed amendments to Section 5.11 of the Tariff (the Must Offer Obligation) and Sections 2.4.1 and 4.2.2 of the Market Monitoring and Information Protocol Appendix A to comply with the Commission's directives.

### **3. Local Market Power Mitigation**

The ISO proposed to resolve local market power by mitigating bids that must be taken out of merit order to ensure local reliability to the resource's variable cost. The Commission instead ordered the ISO to use AMP to mitigate local market power by including the following provisions: 1) directing that any bid below \$91.87/MWh is not subject to any mitigation; 2) deeming that any bid above \$91.87/MWh that must be taken out of economic merit order to local reliability has failed the conduct test, and 3) deeming that any bid failing the conduct test and either more than 200 percent greater than or \$50 higher than the market clearing price would be mitigated and the generator paid the higher of its reference price or the market clearing price. Moreover, the Commission ordered that mitigated bids are not eligible to set the market clearing price.

Accordingly, the ISO has modified Sections 3.1.1, 3.2.1 and 3.2.2.2 of Market Monitoring and Information Protocol Appendix A to comply with the Commission's directives.

#### **4. 12-Month Market Competitiveness Index**

The ISO proposed to compute a 12-month Market Competitiveness Index using a rolling average price-cost markup index to measure the difference between actual average market prices and a competitive baseline average cost. An average change in market prices in excess of \$5 over the 12-month market competitive index would automatically trigger mitigation and a request to the Commission to reinstate the June 19, 2001 West-wide market mitigation measures. The Commission rejected this proposal but directed the ISO to file information produced by this index on a weekly basis with the Commission's Office of Market Oversight and Investigation.

Accordingly, the ISO withdraws proposed Section 28.2 of the Tariff to comply with the Commission's directives.

In regards to the Commission's directive to submit this index to the Office of Market Oversight and Investigations on a weekly basis, the ISO notes in its Request for Rehearing and Clarification of the July 17 Order, filed concurrently with this compliance filing, that submitting this data weekly is a problem 1) until the ISO's Day-Ahead Energy Market is established, and 2) because, in the interim, data from the current primary purchaser in the California wholesale electricity markets, the California Energy Resources Scheduler ("CERS"), is submitted to the ISO after a considerable delay.

#### **5. Interim Forward Intra-Zonal Congestion Management**

The Commission noted that the ISO intended to file in the near future an interim proposal that would adjust a Generator's Schedule before real time to avoid incidences of Intra-Zonal Congestion. The ISO intends to make such a filing as soon as possible.

#### **6. Clearing Price Overlap Using Real Time Economic Dispatch**

The ISO proposed to implement software that contains an economic-dispatch algorithm to continuously clear overlapping real time Energy bids, such that there will be a single price in each BEEP interval. The Commission accepted the ISO's proposal as filed in the May 1 MD02 Filing.

## **7. Single Bid Curve**

The ISO proposed to require bidders into the proposed Day-Ahead Energy and Hour-Ahead Markets to submit the same Energy bid for all services offered by a single resource. Inasmuch as the proposed Day-Ahead Energy Market will not be implemented on October 1, 2002, the single bid curve was proposed to initially be implemented in the RUC process and the Hour-Ahead and Real Time Markets only. The Commission accepted the single bid curve requirement, noting that it will consider at a future date the extension of this requirement into the Day-Ahead Energy Market and also that, inasmuch as the Commission rejected the RUC proposal, the single bid curve initially would be applied only in the hourly and real-time markets.

The ISO has modified the single Energy bid curve Tariff language submitted in the May 1 MD02 Filing to require Scheduling Coordinators to submit an Energy bid at least equal to the amount of Ancillary Services capacity awarded or self-provided in the Day-Ahead or Hour-Ahead Markets. If no such bid is provided, the ISO will calculate such a bid in accordance with ISO Tariff Section 2.5.23.3.4 for gas-fired resources and will use a \$0/MWh bid for non-gas-fired resources. This change is necessitated due to the Commission's concurrent rejection of the RUC process and approval of the single Energy bid curve. If RUC had been approved, Scheduling Coordinators would have been required to submit the single Energy bid curve into the Day-Ahead RUC process. The ISO also has modified this section to provide that the single Energy bid curve is to be submitted using the Supplemental Energy bid template.

Accordingly, the ISO has modified Section 5.13 of the Tariff to comply with the Commission's directives.

## **8. Cap On Negative Decremental Energy Bids**

The ISO proposed a bid cap equal to negative \$30/MWh for negative Energy bids in the Real Time Markets. The Commission accepted the bid cap but also ordered that Generators bidding in excess of the cap may seek to justify costs and to the extent such costs are justified the ISO would subsequently further compensate the Generator for the full amount of any such justified bid.

Accordingly, the ISO has modified Section 28.1.3 of the Tariff to comply with the Commission's directives.

## **9. Penalties For Excessive Uninstructed Deviations**

The ISO proposed to penalize Scheduling Coordinators for uninstructed deviations beyond a tolerance band equal to the greater of 5 MW or three percent of the maximum operating limit of the resource. The Commission accepted the ISO proposal as filed in the May 1 MD02 Filing, subject to certain software modifications, as discussed below.

## **10. Expiration of Other Aspects of the Current Price Mitigation**

The ISO proposed in its January 25, 2002 compliance filing to the December 19 Order, 97 FERC ¶ 61,159 (2001), to include a new Section 31 that would reflect the September 30, 2002 expiration of the current price mitigation by directing that the limitations on prices in Sections 2.5.22, 2.5.23, 2.5.27 and the Must Offer Obligation provisions in Section 5.11 expire on September 30, 2002. The Commission's July 17 Order directed that while all other aspects of the current price mitigation expire, the Must Offer Obligation continues beyond September 30, 2002. With the Must Offer Obligation continuing, sub-sections of Section 2.5.23 that support the Must Offer Obligation must continue also. The ISO therefore considers the current Section 31 does not clearly identify what sub-sections of Section 2.5.23 must continue. The ISO considers that Sections 2.5.23.3.3 (which requires generators subject to the Must Offer Obligation to submit generating unit data) and Sections 2.5.23.3.4 (which authorizes the ISO to determine a proxy price should a Must Offer generator fail to bid in accordance with the must offer obligation) are still needed. Additionally, the ISO finds Section 2.5.23.3.6 (which directs the ISO to pay emissions costs) and Section 2.5.23.3.7 (which directs the ISO to pay Start-Up fuel costs), which support the Must Offer Obligation, are still needed. The ISO therefore submits proposed Tariff language striking Section 31 and, in lieu of the effect of Section 31, striking the other elements of Sections 2.5.22, 2.5.23 and 2.5.27 that expire on September 30, 2002 pursuant to the Commission's directives.

In January 2001, in response to the growing insolvency of Pacific Gas and Electric Company (PG&E) and Southern California Edison Company ("Edison"), the State of California enacted legislation authorizing CERS to procure Energy through ISO Markets to serve the native Loads of PG&E and Edison that could not be served through Generation from those two entities' retained Generating Units (*i.e.*, the Energy net short position) and to serve as the creditworthy backer of third-party transactions in ISO Markets. On February 14, 2001, the Commission directed the ISO to provide assurances to all third-party suppliers that there was a creditworthy buyer for all Energy delivered to Loads within the



ISO Control Area.<sup>5</sup> In an order issued on April 6, 2001, the Commission directed the ISO to ensure the presence of a creditworthy buyer for all power that third-party suppliers provided to the utility distribution companies ("UDCs") that did not meet the creditworthiness provisions of the ISO Tariff.<sup>6</sup> Despite its authorization, CERS, as of November 7, 2001, had yet to make payments for past due debts incurred on the behalf of the UDCs and make payments as the creditworthy backer of the ISO Real Time Markets. In the interim, on June 19, 2001, as a part of the market power mitigation plan and within the dockets for that plan, the Commission imposed a 10 percent creditworthiness surcharge<sup>7</sup> to reflect the facts that there were past due and unpaid debts of the IOUs despite CERS' role and responsibility and the business risk for defaults in the future given the current circumstances.

In an order issued on November 7, 2001, the Commission stated that CERS had assumed ultimate responsibility for Energy purchases made through the ISO Real Time Imbalance Energy Market, that CERS must abide by the terms of the ISO Tariff and its ISO Scheduling Coordinator Agreement, and CERS must pay for all the net short positions of the non-creditworthy UDCs. In compliance the ISO invoiced CERS for all past due debts of the UDCs beginning on January 17, 2001, the effective date for the State legislation authorizing CERS to procure Energy on the behalf of the UDCs. Moreover, in compliance, CERS paid all such past due debts and continues to date to make timely payments on a going forward basis in accordance with the ISO Tariff.

The overwhelming majority of all remaining overdue and unpaid amounts owed to ISO Market Participants were incurred during November and December 2000 and January 1-16, 2001. These debts are part of the on-going bankruptcy proceedings of the California Power Exchange and PG&E. The timing of payment of these debts rests with the bankruptcy court and, for the California Power Exchange, the Commission, who must approve the disbursement plan when that bankruptcy is discharged. The risk of not being paid for transactions in the ISO Real Time Imbalance Energy Markets has been effectively removed by the presence of an active creditworthy buyer for the BEEP stack and the currency of the ISO accounts for the UDCs. Thus the conditions prompting the Commission to require the ten percent creditworthiness adder have been removed and Market Participants are no longer at risk of not being paid for prospective transactions in the ISO markets. Therefore, along with the other provisions of the Commission's market power mitigation plan, the ten percent credit risk adder expires after September 30, 2002. The ISO herein submits proposed changes to Section 11.2.12 to reflect this expiration.

---

<sup>5</sup> 94 FERC ¶ 61,132 (2001).

<sup>6</sup> 95 FERC ¶ 61,026, reh'g denied, 95 FERC ¶ 61,267, reh'g denied, 96 FERC ¶ 61,267 (2001).

<sup>7</sup> 95 FERC ¶ 61,418 (2001).

### **III. EFFECTIVE DATES**

The ISO proposed in the May 1 MD02 filing that the effective date for all proposed Tariff changes be the date set by the Commission for the expiration of the price mitigation measures imposed in Summer 2001 – October 1, 2002.

The ISO believes that, while the Commission's directive to use an independent entity to calculate the reference prices complicates implementation, it can implement the AMP, including the local market power mitigation changes ordered by the Commission, and the use of a single Energy bid curve, on October 1, 2002, unless a qualified and acceptable independent entity cannot be found or the required reference prices cannot be calculated by that date. The ISO also believes it can implement the "soft" cap on negative decremental bids and modify its software to reject bids in excess of \$250/MWh on October 1, 2002. The ISO requests that the proposed Tariff changes implementing those elements be made effective then. The ISO also requests that the proposed changes deleting the elements of the current price mitigation not related to the continuation of the Must Offer Obligation be made effective on October 1, 2002.

The Commission directed that the Uninstructed Deviation Penalties not be implemented until the ISO implemented software 1) allowing Market Participants to better communicate outage and operating restriction data to the ISO (the proposed extension to the current Scheduling and Logging for ISO of California application, or "extended SLIC" application) and 2) that allowed resources to be modeled in the ISO's software and computer systems to reflect multiple ramp rates. The ISO does not expect these software modifications to be ready until late in 2002. Moreover, because of the strong interrelation between the uninstructed deviation penalties and the price overlap-clearing real-time economic dispatch systems, the ISO intends to implement these changes at the same time. The ISO therefore requests that the Tariff changes implementing these items not be made effective October 1, 2002, but be made effective ten (10) days after the ISO notifies the market that the software modifications are ready. At this time, the ISO forecasts these software changes will be ready on December 31, 2002.

### **IV. RESERVATION OF RIGHTS**

This filing represents the ISO's best effort at complying with the Commission's July 17 Order in the short time permitted. Concurrently with the instant filing, the ISO is submitting a Request for Rehearing and Clarification of the July 17 Order. The instant filing notwithstanding, the ISO reserves all rights to pursue issues on rehearing and clarification, notwithstanding its implementation of the directives of the July 17 Order in this compliance filing.

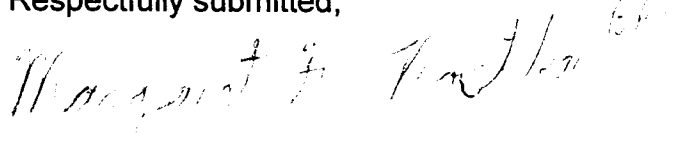
**V. SUPPORTING DOCUMENTS**

The following documents, in addition to this transmittal letter, support this filing:

- |              |  |
|--------------|--|
| Attachment A | Revised Tariff sheets incorporating the changes described above. NOTE: The revised Tariff sheets will be submitted within three (3) business days of the date of this filing. The revised Tariff sheets will reflect the black-lined Tariff sheets submitted herewith. |
| Attachment B | "Black-lined" Tariff provisions showing the additions to and deletions from existing Tariff provisions requested to take effect on October 1, 2002.  |
| Attachment C | A form notice of filing suitable for publication in the Federal Register, and a computer diskette containing the notice in WordPerfect format.   |

Two additional copies of this filing are enclosed to be date-stamped and returned to our messenger. If there are any questions concerning this filing, please contact the undersigned.

Respectfully submitted,



Charles F. Robinson  
Margaret A. Rostker  
Counsel for the California Independent  
System Operator Corporation  
151 Blue Ravine Road  
Folsom, California 95630

Dated: August 16, 2002

## **ATTACHMENT A**

## **ATTACHMENT B**

**[Section 2.5.22.4.2]**

- (d) Generating Unit operating limits (high and low MW);
- (e) Generating Unit ramp rate (MW/Min); and
- (f) Such other information as the ISO may determine it requires to evaluate bids, as published from time to time in ISO Protocols.

~~\_\_\_\_\_ All Supplemental Energy bids submitted on behalf of Scheduling Coordinators that are not permitted to set the Market Clearing Price as described in Section 2.5.23.3.8 shall be bids deemed by the ISO to be paid: (i) the Marginal Proxy Clearing Price, as determined in accordance with Section 2.5.23.3.1.1, during Price Mitigation Reserve Deficiencies or (ii) the Non-Emergency Clearing Price, as determined in accordance with Section 2.5.23.3.1.2, during non-Price Mitigation Reserve Deficiencies. Scheduling Coordinators for Must Offer Generators, as defined in Section 5.11 of this ISO Tariff, may elect to submit Supplemental Energy bids for gas-fired Generating Units at the Proxy Price calculated in accordance with Section 2.5.23.3.3.4. Scheduling Coordinators for all other Generating Units, System Units, and System Resources may elect to submit Supplemental Energy bids to be paid: (i) the Marginal Proxy Clearing Price, as determined in accordance with Section 2.5.23.3.1.1, during Price Mitigation Reserve Deficiencies or (ii) the Non-Emergency Clearing Price, as determined in accordance with Section 2.5.23.3.1.2, during non-Price Mitigation Reserve Deficiencies.~~

\* \* \*

**2.5.23.3        [not used] Temporary Limitation on BEEP Interval Ex Post Prices**

**2.5.23.3.1      [not used] Limitation.**

**2.5.23.3.1.1    [not used] Limitation During Price Mitigation Reserve Deficiencies**

~~Except as provided for in Section 2.5.23.3.1.3, and notwithstanding any other provision of the ISO Tariff, during hours in which the ISO has declared a Price Mitigation Reserve Deficiency, the BEEP Interval Ex Post Price shall equal the highest Proxy Price calculated in accordance~~

~~with Section 2.5.23.3.4 for a gas-fired Generating Unit that: (i) is eligible to set the Market Clearing Price as set forth in Section 2.5.23.3.8; and (ii) is dispatched by the ISO to provide Imbalance Energy. This Proxy Price shall establish the Market Clearing Price (the "Marginal Proxy Clearing Price") for all Scheduling Coordinators for Generating Units, System Units, and System Resources that submit bids at or below the level of the Marginal Proxy Clearing Price during hours in which the ISO has declared a Price Mitigation Reserve Deficiency.~~

~~All bids for the supply of Imbalance Energy during Price Mitigation Reserve Deficiencies submitted by Scheduling Coordinators for resources that do not meet the requirements set forth in Section 2.5.23.3.8 to be eligible to set the Market Clearing Price shall be bids deemed by the ISO to be paid the Marginal Proxy Clearing Price. Subject to Section 2.5.23.3.8, Scheduling Coordinators for Generating Units, System Units, and System Resources that submit bids above the Marginal Proxy Clearing Price for the supply of Imbalance Energy during Price Mitigation Reserve Deficiencies shall be paid in accordance with their bids if accepted for Dispatch by the ISO. Such bids shall be subject to the cost justification requirements and potential refunds as set forth in Section 2.5.23.3.5.~~

**2.5.23.3.1.2 [not used] Limitation During Non-Price Mitigation Reserve Deficiencies**

~~Except as provided for in Section 2.5.23.3.1.3, and notwithstanding any other provision of the ISO Tariff, during hours in which the ISO has not declared a Price Mitigation Reserve Deficiency, the BEEP Interval Ex Post Price shall not exceed the "Non-Emergency Clearing Price Limit" as defined in this Section 2.5.23.3.1.2. The "Non-Emergency Clearing Price Limit" shall equal 85% of the highest hourly Zonal Marginal Proxy Clearing Price calculated in accordance with Section 2.5.23.3.1.1 from among those Settlement Periods during the last Price Mitigation Reserve Deficiency which existed for the entire Settlement Period. If any Scheduling Coordinator submits a bid from a resource eligible to set the Market Clearing Price in accordance with Section 2.5.23.3.8 for the supply of Imbalance Energy during an hour in which the ISO has not declared a Price Mitigation Reserve Deficiency that: (i) exceeds the Non-~~

~~Emergency Clearing Price Limit; and (ii) is dispatched by the ISO to provide Imbalance Energy, then the Market Clearing Price for the applicable BEEP Interval (the "Non-Emergency Clearing Price") shall be equal to the Non-Emergency Clearing Price Limit. If the marginal bid accepted by the ISO for the supply of Imbalance Energy during an hour in which the ISO has not declared a Price Mitigation Reserve Deficiency is less than the Non-Emergency Clearing Price Limit, then the marginal bid accepted by the ISO shall, subject to Section 2.5.23.3.8, establish the Non-Emergency Clearing Price.~~

~~\_\_\_\_\_ All bids for the supply of Imbalance Energy during non-Price Mitigation Reserve Deficiencies submitted by Scheduling Coordinators for resources that do not meet the requirements set forth in Section 2.5.23.3.8 to be eligible to set the Market Clearing Price shall be bids deemed by the ISO to be paid the Non-Emergency Clearing Price. Scheduling Coordinators for Generating Units, System Units, and System Resources that submit bids above the Non-Emergency Clearing Price for the supply of Imbalance Energy during BEEP Intervals in which the ISO has not declared a Price Mitigation Reserve Deficiency shall, subject to Section 2.5.23.3.8, be paid in accordance with their bids if accepted for Dispatch by the ISO. Such bids shall be subject to cost justification requirements and potential refunds, as set forth in Section 2.5.23.3.5.~~

**2.5.23.3.1.3    [not used] Limitation from December 21, 2001 through April 30, 2002.**

~~From December 21, 2001 through April 30, 2002, the BEEP Interval Ex Post Price shall not exceed the Winter Clearing Price Limit. Effective December 21, 2001, the Winter Clearing Price Limit is \$108/MWh, based on a proxy figure for natural gas cost of \$6.641/MMBtu. The Winter Clearing Price Limit shall be recalculated when the daily proxy figure for natural gas costs posted on the ISO Home Page differs from the proxy figure for natural gas costs used to calculate the Winter Clearing Price Limit then in effect by more than ten percent, though the Winter Clearing Price Limit shall not be less than \$108/MWh. Effective at 0001 hours on May 1, 2002, the Non-Emergency Clearing Price shall be \$91.87/MWh.~~



**2.5.23.3.2**      ~~**[not used] Charges for Certain Instructed Imbalance Energy.**~~ Amounts paid to Scheduling Coordinators in accordance with Section 2.5.23.3.1 for Instructed Imbalance Energy from Generating Units, System Units and System Resources at bids above the Marginal Proxy Clearing Price during hours in which the ISO has declared a Price Mitigation Reserve Deficiency or above the Non-Emergency Clearing Price during all other periods shall be charged to Scheduling Coordinators such that the charge to each Scheduling Coordinator shall be pro rata based upon the same proportion as the Scheduling Coordinator's Net Negative Uninstructed Deviations for the BEEP Interval bears to the total Net Negative Uninstructed Deviations of all Scheduling Coordinators for the BEEP Interval. Such charge shall apply in lieu of any charge specified in the ISO Tariff for such Instructed Imbalance Energy based on the BEEP Interval Ex Post Price.

**2.5.23.3.3      Requirement of Must-Offer Generators to File Heat Rate and Emissions Rate Data**

Must-Offer Generators, as defined in Section 5.11 of this ISO Tariff, that own or control gas-fired Generating Units must file with the ISO and the FERC, on a confidential basis, the heat rates and emissions rates for each gas-fired Generating Unit that they own or control. Heat rate and emissions rate data shall be provided in the format specified by the ISO as posted on the ISO Home Page. Heat rate data provided to comply with this requirement shall not include start-up or minimum Load fuel costs. Must-Offer Generators must also file periodic updates of this data upon the direction of either FERC or the ISO. The ISO will treat the information provided to the ISO in accordance with this Section 2.5.23.3.3 as confidential and will apply the procedures in Section 20.3.4 of this ISO Tariff with regard to requests for disclosure of such information.

**2.5.23.3.4      Calculation of the Proxy Price**

The ISO shall calculate each day separate Proxy Prices for each gas-fired Generating Unit owned or controlled by a Must-Offer Generator by applying the filed heat rates for those Generating Units to a daily proxy figure for natural gas costs with an additional \$6/MWh allowed for operations and maintenance expenses. The proxy figures for natural gas costs shall be based on the most recent data available and shall be posted on the ISO Home Page by 8:00 AM on the day prior to which the figures will be used for calculation of the Proxy Price.

**2.5.23.3.5      [not used] Requirement to Justify Bids Accepted by the ISO**

~~The following entities shall be required to provide cost justification for bids to supply Imbalance Energy submitted to and accepted by the ISO:~~

- ~~(a) Scheduling Coordinators for all Generating Units, System Units, and System Resources that submit bids for the supply of Imbalance Energy during Price Mitigation Reserve Deficiencies above the Marginal Proxy Clearing Price determined in accordance with Section 2.5.23.3.1.1, except for the period from December 20, 2001 through April 30, 2002;~~
- ~~(b) Scheduling Coordinators for all Generating Units, System Units, and System Resources that submit bids for the supply of Imbalance Energy during hours in which the ISO has not declared a Price Mitigation Reserve Deficiency above the Non-Emergency Clearing Price determined in accordance with Section 2.5.23.3.1.2, except for the period from December 20, 2001 through April 30, 2002; and~~
- ~~(c) Scheduling Coordinators for all Generating Units, System Units, and System Resources that submit bids for the supply of Imbalance Energy above the Winter Clearing Price Limit determined in accordance with Section 2.5.23.3.1.3 for the period December 20, 2001 through April 30, 2002.~~

~~\_\_\_\_\_ Scheduling Coordinators subject to the cost justification requirement shall provide such justification in writing to the ISO and the FERC by no later than seven (7) calendar days after the end of the month in which the bid was submitted. The cost justification for bids submitted on behalf of Must Offer Generators and other Generating Units and System Units shall include a detailed breakdown of the component costs associated with such bids. Such cost justifications shall include information on each separate transaction in the entire natural gas portfolio of a Must Offer Generator and its Affiliates. Cost justifications provided pursuant to this Section 2.5.23.3.5 shall not include components representing emissions costs, start up costs, credit risks, scarcity rents or opportunity costs. The ISO will treat the cost justifications provided to the ISO in accordance with this Section 2.5.23.3.5 as confidential and will apply the procedures in Section 20.3.4 of this ISO Tariff with regard to requests for disclosure of such information. Amounts collected by Scheduling Coordinators subject to the cost justification requirement in excess of the Marginal Proxy Clearing Price, Non-Emergency Clearing Price, or Winter Clearing Price Limit, as applicable, shall be subject to refund, as may be ordered by the FERC.~~

~~\*\*\*~~

**2.5.23.3.8      [not used] Eligibility to Establish the Marginal Proxy Clearing Price and Non-Emergency Clearing Price**

~~Only bids from Scheduling Coordinators for generating units: 1) for which heat rate data have been submitted in accordance with Section 2.5.23.3.3 and 2) which satisfy the data requirements set forth in Section 2.5.23.3.8.2 are eligible to establish either the Marginal Proxy Clearing Price or the Non-Emergency Clearing Price. Only Scheduling Coordinators for generating units: 1) for which heat rate data have been submitted in accordance with Section 2.5.23.3.3 and 2) which satisfy the data requirements set forth in Section 2.5.23.3.8.2 are eligible to be paid as bid in accordance with this Section 2.5.23.3. All other Scheduling Coordinators whose bids to supply Imbalance Energy are accepted by the ISO shall be paid the Non-Emergency Clearing Price during periods when the ISO is not in a Price Mitigation Reserve~~

~~Deficiency or the Marginal Proxy Clearing Price when the ISO is in a Price Mitigation Reserve Deficiency. Bids from hydroelectric generating units are not eligible to set any Market Clearing Price, including the Marginal Proxy Clearing Price or the Non-Emergency Clearing Price.~~

**2.5.23.3.8.1     [not used] Price-Taker Bids for Some Resources Not Eligible to Establish Market Clearing Prices**

~~Bids from Scheduling Coordinators for generating units: 1) for which heat rate data have not been submitted in accordance with Section 2.5.23.3.3 or 2) which do not satisfy the data requirements as set forth in Section 2.5.23.3.8.2, except for hydroelectric generating units, must be at a price of \$0/MWh.~~

**2.5.23.3.8.2     [not used] Data Requirements to Establish Eligibility to Establish the Marginal Proxy Clearing Price or Non-Emergency Clearing Price**

~~Scheduling Coordinators for generating units not contained within the metered boundaries of the ISO Control Area that seek to be eligible to set the Marginal Proxy Clearing Price or Non-Emergency Clearing Price must meet the requirements set forth in the ISO's "Monitoring and Communications Requirements for Generating Units Providing Only Energy and Supplemental Energy" as posted on the ISO Home Page. Scheduling Coordinators for generating units not contained within the metered boundaries of the ISO Control Area that seek to be eligible to set the Marginal Proxy Clearing Price or Non-Emergency Clearing Price must provide the ISO, for each such generating unit, with: 1) a unique interchange identifier that refers to the generating unit; and 2) the heat rate data set forth in Section 2.5.23.3.3 before those units will be eligible to set the Marginal Proxy Clearing Price or Non-Emergency Clearing Price. Scheduling Coordinators for generating units not contained within the metered boundaries of the ISO Control Area that seek to be eligible to set the Marginal Proxy Clearing Price or Non-Emergency Clearing Price must provide the ISO with Settlement Quality Meter Data for each BEEP Interval in that Trade Day and other Settlement Quality Meter Data the ISO may deem necessary to verify the generating unit's performance. Scheduling Coordinators shall submit these data,~~

~~using the template posted on the ISO Home Page for this purpose, no later than 30 calendar days after the Trade Day in which the Energy was provided.~~

~~\*\*\*~~

**2.5.27.7      [not used] Temporary Limitation on Ancillary Service Prices.**

**2.5.27.7.1      [not used] Limitation During Price Mitigation Reserve Deficiencies**

~~Notwithstanding any other provision of the ISO Tariff, the Market Clearing Prices for Regulation Up, Regulation Down, Spinning Reserves, Non-Spinning Reserves, and Replacement Reserves shall not exceed the Hourly Ex Post Price in effect at the deadline for submitting bids to that market, as determined in accordance with Section 2.5.23.3.1.1, during Price Mitigation Reserve Deficiencies. Subject to Section 2.5.27.7.4 of this ISO Tariff, Scheduling Coordinators for Generating Units, System Units, Loads, and System Resources that submit bids above the Hourly Ex Post Price in effect at the deadline for submitting bids to that market for the supply of these Ancillary Services during Price Mitigation Reserve Deficiencies shall be paid in accordance with their bids if accepted by the ISO. Such bids shall be subject to cost justification requirements and potential refunds.~~

**2.5.27.7.2      [not used] Limitation During Non-Price Mitigation Reserve Deficiencies**

~~Notwithstanding any other provision of the ISO Tariff, the Market Clearing Prices for Regulation Up, Regulation Down, Spinning Reserves, Non-Spinning Reserves, and Replacement Reserves shall not exceed the Non-Emergency Clearing Price Limit in effect at the deadline for submitting bids to that market, as determined in accordance with Section 2.5.23.3.1.2 of this ISO Tariff, during non-Price Mitigation Reserve Deficiencies. Subject to Section 2.5.27.7.4, Scheduling Coordinators for Generating Units, System Units, Loads, and System Resources that submit bids for the supply of these Ancillary Services during non-Price Mitigation Reserve Deficiencies at a price above the Non-Emergency Clearing Price Limit in effect at the deadline for submitting bids to that market shall be paid in accordance with their bids if accepted by the ISO. Such bids shall be subject to cost justification requirements and potential refunds.~~

### **2.5.27.7.3      [not used] Requirement to Justify Bids**

~~Scheduling Coordinators subject to the cost justification requirement must provide such justification in writing to the ISO and the FERC by no later than seven (7) calendar days after the end of the month in which the bid was submitted. The ISO will treat the cost justifications provided to this ISO in accordance with this Section 2.5.27.7 as confidential and will apply the procedures in Section 20.3.4 of this ISO Tariff with regard to requests for disclosure of such information. Amounts collected by Scheduling Coordinators subject to the cost justification requirement in excess of the Hourly Ex Post Price or the Non-Emergency Clearing Price Limit, as applicable, shall be subject to refund, as may be ordered by the FERC.~~

### **2.5.27.7.4      [not used] Eligibility to Establish the Market Clearing Price for Ancillary Services**

~~Only bids from Scheduling Coordinators for generating units: 1) for which heat rate data have been submitted in accordance with Section 2.5.23.3.3 of this ISO Tariff, and 2) which satisfy the data requirements set forth in Section 2.5.23.3.8.2 of this ISO Tariff are eligible to establish the Market Clearing Price for Ancillary Services. Only Scheduling Coordinators for generating units: 1) for which heat rate data have been submitted in accordance with Section 2.5.23.3.3 of this ISO Tariff, and 2) which satisfy the data requirements set forth in Section 2.5.23.3.8.2 of this ISO Tariff, are eligible to be paid as bid in accordance with Section 2.5.27.7. All other Scheduling Coordinators whose bids to provide Ancillary Services are accepted by the ISO shall be paid the Market Clearing Price for Ancillary Services.~~

\* \* \*

### **5.11.5      Submission of Bids and Applicability of the Proxy Price**

For each Operating Hour, Must-Offer Generators shall submit Supplemental Energy bids for all of their Available Generation to the ISO in accordance with Section 2.5.22.4. In addition, the ISO shall calculate for each gas-fired Must-Offer Generator, in accordance with Section 2.5.23, a Proxy Price for Energy. ~~Subject to Section 2.5.23.3.8, in hours in which the ISO has declared~~

~~a Price Mitigation Reserve Deficiency, any submitted bids that are priced above the Marginal Proxy Clearing Price for the BEEP Intervals, as determined in accordance with Section 2.5.23.3.1.1, will be paid as bid if accepted by the ISO. Subject to Section 2.5.23.3.8, in hours in which the ISO has not declared a Price Mitigation Reserve Deficiency, any submitted bids that are priced above the Non-Emergency Clearing Price for the BEEP Intervals, as determined in accordance with Section 2.5.23.3.1.2, will be paid as bid if accepted by the ISO. If, under this section, a Must-Offer Generator is paid as bid, such bids will be subject to the cost justification procedures established by FERC and may be subject to refund, as determined by FERC. If a Must-Offer Generator fails to submit a Supplemental Energy bid for any portion of its Available Generation for any BEEP Interval, the unbid quantity of the Must-Offer Generator's Available Generation will be deemed by the ISO to be bid at the Must-Offer Generator's Proxy Price for that hour if: (i) the applicable Generating Unit is a gas-fired unit and (ii) the Must-Offer Generator has provided the ISO with adequate data in compliance with Sections 2.5.23.3.3 and 5.11.3 for the applicable Generating Unit. For all other Generating Units owned or controlled by a Must-Offer Generator, the unbid quantity of the Must-Offer Generator's Available Generation will be deemed by the ISO to be bid to receive the BEEP Interval Ex Post Price; (i) the Marginal Proxy Clearing Price, as determined in accordance with Section 2.5.23.3.1.1, during Price Mitigation Reserve Deficiencies or (ii) the Non-Emergency Clearing Price, as determined in accordance with Section 2.5.23.3.1.2, during non-Price Mitigation Reserve Deficiencies. In order to dispatch resources providing Imbalance Energy in proper merit order, the ISO will insert this unbid quantity into the Must-Offer Generator's Supplemental Energy bid curve above any lower-priced segments of the bid curve and below any higher-priced segments of the bid curve as necessary to maintain a non-decreasing bid curve over the entire range of the Must-Offer Generator's Available Generation.~~

\* \* \*

#### 5.13. Energy Bids

#### 5.13.1 Energy Bid Definition

A single Energy Bid curve per resource per hour shall be used in: ~~(a) the Residual Unit Commitment Process as set forth in Section 5.12,~~ (a) the Real-Time Hourly Pre-Dispatch as set forth in Dispatch Protocol 8.6.4, and ~~(b) the Real-Time Economic Dispatch (10-minute Imbalance Energy market).~~ (b) The Energy Bid, ~~although different than the Adjustment Bid that may be submitted by resources in the Day Ahead and Hour Ahead Congestion Management markets,~~ shall also be a staircase price (\$/MWh) versus quantity (MW) curve of up to 10 segments. **The Energy Bid shall be submitted to the Real Time Imbalance Energy Market using the Supplemental Energy Bid template.** The Energy Bid curve shall be monotonically increasing, i.e., the price of a subsequent segment shall be greater than the price of a previous segment.

#### 5.13.2 Energy Bid Submission

##### ~~5.13.2.1 Day Ahead Residual Unit Commitment~~

~~Energy Bids shall be submitted for use in the Day Ahead Residual Unit Commitment Process no later than 30 minutes after the publication of final Day Ahead Schedules, in accordance with Section 5.12.4. Resources required to offer their Available Generation in accordance with Section 5.11.4 shall be required to submit Energy Bids for all of their Available Generation. In absence of submitted bids, default bids shall be used for resources required to offer their Available Generation in accordance with Section 5.12. Resources not required to offer their Available Generation in accordance with Section 5.11.4 may voluntarily submit Energy Bids. All submitted Energy Bids shall be subject to the Damage Control Bid Cap as set forth in Section 28.1 and to the Mitigation Measures set forth in Appendix A to the Market Monitoring and Information Protocol.~~

##### 5.13.2.2.1 Real-Time Market



Energy Bids shall be submitted for use in the Real-Time Hourly Pre-Dispatch in DP 8.6.4(j) and the Real-Time Economic Dispatch up to 45 minutes prior to the Operating Hour. Resources required to offer their Available Generation in accordance with Section 5.11.4 shall be required to submit Energy Bids for **1) all** of their Available Generation **and 2) any Ancillary Services capacity awarded or self-provided in the Day-Ahead or Hour-Ahead Ancillary Services markets**. In the absence of submitted bids, default bids will be used for resources required to offer their Available Generation in accordance with Section 5.11.5. Resources not required to offer their Available Generation in accordance with Section 5.11.4 **that were awarded or self provided Ancillary Services capacity must submit an Energy Bid for no less than the amount of awarded or self-provided Ancillary Services capacity. Resources not required to offer their Available Generation in accordance with Section 5.11.4** may voluntarily submit Energy Bids. Submitted Energy Bids shall be subject to the Damage Control Bid Cap as set forth in Section 28.1 and to the Mitigation Measures set forth in Appendix A to the Market Monitoring and Information Protocol.

~~Submitted Energy Bids in the Real-Time Market may not exceed the price of the corresponding Day-Ahead Energy Bids for capacity selected in the Residual Unit Commitment Process. Capacity selected in the Residual Unit Commitment process will be associated with the lowest-priced portion of the Real-time Energy Bid curve.~~

#### 5.13.2.3.2 Real-time Energy Bid Partition

The portion of the **single** Energy Bid that corresponds to the high end of the resource's operating range, shall be allocated to any awarded or self-provided Ancillary Services in the following order from higher to lower capacity: (a) Regulation Up; (b) Spinning Reserve; (c) Non-

Spinning Reserve; and (d) Replacement Reserve. For resources providing Regulation Up, the upper regulating limit shall be used if it is lower than the highest operating limit. The remaining portion of the Energy Bid (i.e. that portion ~~between capacity selected in the Residual Unit Commitment Process and~~ not associated with capacity committed to provide Ancillary Services) shall constitute a Bid to provide Supplemental Energy.

**5.13.3 Requirement to Submit Energy Bids For Awarded or Self-Provided Ancillary Services Capacity**

**Scheduling Coordinators for resources that have been awarded or self-provide Regulation Up, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve capacity must submit a Supplemental Energy bid for at least all the awarded or self-provided Ancillary Services capacity. To the extent a Supplemental Energy bid is not so submitted for a gas-fired resource, the ISO shall calculate a Supplemental Energy bid in accordance with Section 2.5.23.3.4 and insert that bid into the Real Time Imbalance Energy Market. To the extent a Supplemental Energy bid is not so submitted for a non-gas-fired resource, the ISO shall insert a bid of \$0/MWh into the Real Time Imbalance Energy Market.**

\* \* \*

**11.2.4.1.2 Penalties for Uninstructed Imbalance Energy**

Amounts collected as Uninstructed Deviation Penalties shall first ~~be assigned to reduce the portion of Residual Unit Commitment costs that would otherwise be included in Total Excess Hourly Unit Commitment Cost, pursuant to Section 5.12.8.3.~~ Any remaining amounts of ~~collected Uninstructed Deviation Penalties shall next~~ be assigned to reduce the portion of above-MCP costs that would otherwise be assigned pro rata to all Scheduling Coordinators in that BEEP Interval pursuant to Section 11.2.4.2.2. Any remaining portion of amounts collected

as Uninstructed Deviation Penalties ~~after satisfying these sequential commitments~~ shall be treated in accordance with SABP 6.5.2.

\* \* \*

**11.2.12 [not used] Creditworthiness Surcharge**

~~Notwithstanding anything to the contrary in the ISO Tariff, and until the FERC issues any order to the contrary, the following payments and charges shall be increased by a surcharge of 10%:~~

a) ~~payments for Ancillary Services as determined in accordance with Sections 2.5.27.1 to 2.5.27.4;~~

b) ~~charges for Ancillary Services as determined in accordance with Sections 2.5.28.1 to 2.5.28.4; and~~

c) ~~payments for Instructed Imbalance Energy.~~

\* \* \*

**28.1 Damage Control Bid Cap**

28.1.1 Notwithstanding any other provision of this ISO Tariff, the **Damage Control Bid Cap provisions of Sections 28.1.2 and 28.1.3 shall apply to** ~~ISO shall reject any bid into the ISO's Energy and Ancillary Service capacity markets that exceeds the levels specified in Section 28.1.2 and 28.1.4.~~

28.1.2 **Maximum Bid Level.** The maximum bid level shall be \$408**250**/MWh. **The ISO shall reject any bid above this level.** ~~based on a proxy figure for natural gas cost of \$6.641/MMBtu, a \$6.00 adder for variable operations and maintenance costs and an incremental heat rate of 15,360 Btu/kwh. The maximum bid level shall be recalculated when the proxy figure for natural gas costs determined in accordance with the Commission's December 19, 2001 Order Temporarily Modifying the West Wide Mitigation Methodology in Docket No. EL01-68-000 by utilizing the current average of the mid-point for the monthly bid-week index prices reported for SoCal Gas (large packages), Malin and PG&E city-gate in differs~~

~~from the proxy figure for natural gas costs used to calculate the maximum bid level by more than ten percent, though the maximum bid level shall not be less than \$108/MWh.~~

~~28.1.3 The ISO will determine the amount specified in Section 28.1 on a monthly basis and publish the amount on the ISO Home Page in advance of the month to which the maximum bid level applies.~~

28.1.4.3 Negative **Decremental Energy** Bids. Negative **decremental Energy** bids into the ISO Markets **less than** shall be limited to -\$30/MWh (minus thirty dollars per MWh) **shall not be eligible to set any market clearing price and, if Dispatched, shall be paid as bid. If the ISO Dispatches a bid below -\$30/MWh, the supplier must submit a detailed breakdown of the component costs justifying the bid to the ISO and to the Federal Energy Regulatory Commission no later than seven (7) days after the end of the month in which the bid was submitted. The ISO will treat such information as confidential and will apply the procedures in Section 20.3.4 of this ISO Tariff with regard to requests for disclosure of such information. The ISO shall pay suppliers for amounts in excess of \$-30/MWh after those amounts have been justified.**

~~28.1.5 The limitation in this section 28.1 shall not apply if and when the 12 month trigger in section 28.2 has been exceeded and the mitigation in 28.2.3 is in effect.~~

\* \* \*

#### Master Definitions Supplement

Marginal Proxy Clearing Price	<del>The Market Clearing Price determined in accordance with Section 2.5.23.3.1.1.</del>
Non-Emergency Clearing Price	The Market Clearing Price determined in

	<del>accordance with Section 2.5.23.3.1.2.</del>
<del>Non-Emergency Clearing Price Limit</del>	<del>The limitation on Market Clearing Prices determined in accordance with Section 2.5.23.3.1.2.</del>
<del>Price Mitigation Reserve Deficiency</del>	<del>Any clock hour in which the ISO's maximum actual reserve margin is below seven (7) percent.</del>
<del>Winter Clearing Price Limit</del>	<del>The limitation on Market Clearing Prices determined in accordance with Section 2.5.23.3.1.3.</del>

\* \* \*

## MARKET MONITORING & INFORMATION PROTOCOL

### APPENDIX A

#### ISO Market Monitoring Plan

#### Market Mitigation Measures

##### I. PURPOSE AND OBJECTIVES

1.1. These ISO market power mitigation measures ("Mitigation Measures") are intended to provide the means for the ISO to mitigate the market effects of any conduct that would substantially distort competitive outcomes in the ISO Real Time Market and ~~Residual Unit Commitment Process~~, while avoiding unnecessary interference with competitive price signals. These Mitigation Measures are intended to minimize interference with an open and competitive market, and thus to permit, to the maximum extent practicable, price levels to be determined by competitive forces under the prevailing market conditions. To that end, the Mitigation Measures authorize the mitigation only of specific conduct that exceeds well-defined thresholds specified below.

1.2. In addition, the ISO shall monitor the markets it administers for conduct that it determines constitutes an abuse of market power but does not trigger the thresholds specified below for the imposition of mitigation measures by the ISO. If the ISO identifies any such conduct, and in particular conduct exceeding the thresholds for presumptive market effects specified below, it shall make a filing under Section 205 of the Federal Power Act, 16 U.S.C. § 824d, with the Commission requesting authorization to apply appropriate mitigation measures. Any such filing shall identify the particular conduct the ISO believes warrants mitigation, shall propose a specific mitigation measure for the conduct, and shall set forth the ISO's justification for imposing that mitigation measure.

## **2. CONDUCT WARRANTING MITIGATION**

### **2.1. Definitions**

The following definitions are applicable to this Appendix A:

"Economic Market Clearing Prices" are the market clearing prices for a particular resource at the location of that particular resource at the time the resource was either Scheduled or was Dispatched by the ISO. Economic Market Clearing Prices may originate from the Day-ahead Energy market, the Hour-ahead Energy market, (when these markets are in place), or ISO Real-time Imbalance Energy market. The Economic Market Clearing Price for the ISO Real Time Imbalance Energy Market shall be the BEEP Interval Ex Post Price, unless the resource cannot change output level within the hour (i.e., the resource is not amenable to intra-hour real-time dispatch instructions), or it is a System Resource. Economic Market Clearing Prices for the ISO Real Time Imbalance Energy Market for resources that cannot change output level within one BEEP Interval and System Resources shall be the simple average of the six BEEP Interval Ex Post Prices for each hour.

"Electric Facility" shall mean an electric resource, including a Generating Unit, System Unit, Participating Load or a System Resource.

### **2.2. Conduct Subject to Mitigation**

Mitigation Measures may be applied: (i) to the bidding, scheduling, or operation of an "Electric Facility"; or (ii) as specified in section 2.4 below.

### **2.3. Conditions for the Imposition of Mitigation Measures**

2.3.1. In general, the ISO shall consider a Market Participant's conduct to be inconsistent with competitive conduct if the conduct would not be in the economic interest of the Market Participant in the absence of market power. The categories of conduct that are inconsistent with competitive conduct include, but may not be limited to, the three categories of conduct specified in Section 2.4 below.

#### 2.4. Categories of Conduct that May Warrant Mitigation

2.4.1. The following categories of conduct, whether by a single firm or by multiple firms acting in concert, may cause a material effect on prices or generally the outcome of ~~the an ISO Real Time Market or Residual Unit Commitment process~~ if exercised from a position of market power. Accordingly, the ISO shall monitor the ISO Markets for the following categories of conduct, and shall impose appropriate Mitigation Measures if such conduct is detected and the other applicable conditions for the imposition of Mitigation Measures are met:

- (1) Physical withholding of an Electric Facility, in whole or in part, that is, not offering to sell or schedule the output of or services provided by an Electric Facility capable of serving an ISO Market. Such withholding may include, but not be limited to: (i) falsely declaring that an Electric Facility has been forced out of service or otherwise become totally or partially unavailable, (ii) refusing to offer bids or schedules for an Electric Facility when it would be in the economic interest, absent market power, of the withholding entity to do so, (iii) declining real-time bids called upon by the ISO (unless the ISO is informed in accordance with established procedures, that the relevant resource for which the bid is submitted has undergone a forced outage or derate), or (iv) operating a Generating Unit in real-time to produce an output level that is less than the ISO's dispatch instruction.



- (2) Economic withholding of an Electric Facility, that is, submitting bids for an Electric Facility that are unjustifiably high (relative to known operational characteristics and/or the known operating cost of the resource) so that: (i) the Electric Facility is not or will not be dispatched or scheduled, or (ii) the bids will set a market clearing price.
- (3) Uneconomic production from an Electric Facility, that is, increasing the output of an Electric Facility to levels that would otherwise be uneconomic in order to cause, and obtain benefits from, a transmission constraint.

2.4.2. Mitigation Measures may also be imposed to mitigate the market effects of a rule, standard, procedure, design feature, or known software imperfection of an ISO Market that allows a Market Participant to manipulate market prices or otherwise impair the efficient operation of that market, pending the revision of such rule, standard, procedure design feature, or software defect to preclude such manipulation of prices or impairment of efficiency.

2.4.3. Taking advantage of opportunities to sell at a higher price or buy at a lower price in a market other than an ISO Market shall not be deemed a form of withholding or otherwise inconsistent with competitive conduct.

2.4.4. The ISO shall monitor ISO Markets for other categories of conduct, whether by a single firm or by multiple firms acting in concert, that have material effects on prices in an ISO Market or other payments. The ISO shall: (i) seek to amend the foregoing list as may be appropriate to include any such conduct that would substantially distort or impair the competitiveness of any of the ISO Markets; and (ii) seek such other authorization to mitigate the effects of such conduct from the FERC as may be appropriate.

### 3. CRITERIA FOR IMPOSING MITIGATION MEASURES

#### 3.1. Identification of Conduct Inconsistent with Competition

Conduct that may potentially warrant the imposition of a mitigation measure includes the categories described in Section 2.4 above. The thresholds listed in section 3.1.1 below shall be used to identify substantial departures from competitive conduct indicative of an absence of workable competition.

#### 3.1.1. Conduct Thresholds for Identifying Economic Withholding

The following thresholds shall be employed by the ISO to identify economic withholding that may warrant the mitigation of the bid from a resource and shall be determined with respect to a reference level determined as specified in Section 3.1.1.2-1:

**For Energy Bids to be Dispatched as Imbalance Energy through the BEEP stack:**  
**the lower of a ~~200~~400 percent increase or \$~~100~~50/MWh increase in the bid with respect to its Reference Level, whichever is lower.**

**For Energy Bids to be Dispatched out of merit order to manage Intra-Zonal Congestion: any bid with a price of \$91.87/MWh or greater.**

##### 3.1.1.1 Reference Levels

- a. For purposes of establishing reference levels, bid segments shall be defined as follows:

1. the capacity of each generation resource shall be divided into 10 equal Energy bid segments between its minimum (Pmin) and maximum (Pmax) operating point.
2. for Energy bids submitted over the intertie Scheduling Points (import bids), 10 bid segments shall be established for each Scheduling Coordinator at each Scheduling Point based on historical volumes over the preceding 12 months.

A reference level for each bid segment shall be calculated for peak and off-peak periods on the basis of the following methods, listed in the following order of preference subject to the existence of sufficient data, where sufficient data means at least one data point per time period (peak or off-peak) for the bid segment. Peak periods shall be the periods Monday through Saturday from Hour Ending 0700 through Hour Ending 2200, excluding holidays. Off-Peak periods are all other hours.

1. The lower of the mean or the median of a resource's accepted bids in competitive periods over the previous 90 days for peak and off-peak periods, adjusted for monthly changes in fuel prices using the proxy figure for natural gas prices posted on the ISO Home Page;
2. If the resource is a gas-fired unit that does not have significant energy limitations, the unit's default ~~E~~energy ~~B~~bid determined monthly as set forth in Section 5-42.11.5 (based on the incremental heat rate submitted to the ISO, adjusted for gas prices, and the variable O&M cost on file with the ISO, or the default O&M cost of \$6/MWh).
3. For non gas-fired units and gas-fired units that have significant energy limitations, a level determined in consultation with the Market Participant submitting the bid or bids at issue, provided such consultation has occurred prior to the occurrence of the conduct being examined by the ISO, and provided the Market Participant has provided sufficient data on a unit's energy limitations and operating costs (opportunity cost for energy limited resources) in accordance with specifications provided by the ISO.

4. The mean of the Economic Market Clearing Prices for the units' relevant location (zone or node commensurate with the pricing granularity in effect) during the lowest-priced 25 percent of the hours that the unit was dispatched or scheduled over the previous 90 days for peak and off-peak periods, adjusted for changes in fuel prices; or
5. If sufficient data do not exist to calculate a reference level on the basis of the first, second, or fourth methods and the third method is not applicable or an attempt to determine a reference level in consultation with a Market Participant has not been successful, the ISO shall determine a reference level on the basis of:
  - i. the ISO's estimated costs of an Electric Facility, taking into account available operating costs data, opportunity cost, and appropriate input from the Market Participant, and the best information available to the ISO; or
  - ii. an appropriate average of competitive bids of one or more similar Electric Facilities.

- (b) The reference levels (\$/MWh bid price) for the different bid segments of each resource (or import bid curve of a Scheduling Coordinator at a Scheduling Point) shall be made monotonically non-decreasing by the ISO by proceeding from the lowest MW bid segment moving forward. For each bid segment the reference level of each bid segment shall be the higher of the reference level of the preceding bid segment or the reference level determined according to paragraph (a) above.

### 3.2. Material Price Effects

#### 3.2.1. Market Impact Thresholds

In order to avoid unnecessary intervention in the ISO Market, Mitigation Measures for economic withholding shall not be imposed unless conduct identified as specified above causes or contributes to a material change in one or more of the ISO market-clearing prices (MCPs). Initially, the thresholds to be used by the ISO to determine a material price effect shall be as follows:

**For Energy Bids to be Dispatched as Imbalance Energy through the BEEP stack:**  
**the lower of** an increase of ~~200~~400 percent or \$50 per MWh, ~~whichever is lower,~~ in the **projected Hourly Ex Post Price** MCP at any location (zone or node) commensurate with the relevant pricing structure in effect in accordance with the ISO Tariff.

**For Energy Bids to be Dispatched out of economic merit order to manage Intra-Zonal Congestion: if the price of the bid is \$50/MWh or 200 percent greater than the BEEP Interval Ex Post Price at that location (zone or node) commensurate with the relevant pricing structure in effect in accordance with the ISO Tariff.**

### 3.2.2. Price Impact Analysis

**3.2.2.1 Bids to be Dispatched as Imbalance Energy.** The ISO shall determine the effect on prices of questioned conduct through automated computer modeling and analytical methods. An Automatic Mitigation Procedure (AMP) shall identify bids that have exceeded the conduct thresholds and shall compute the change in MCPs **projected Hourly Ex Post Prices** as a result of simultaneously setting all such bids to their Reference Levels. If a change in the MCP **projected Hourly Ex Post Price** exceeds the Impact threshold stated in Section 3.2.1, those bids would be kept mitigated at their default bid levels as specified in Section 4.2.2 below.

**3.2.2.2 Bids to be Dispatched out of economic merit order to manage Intra-Zonal Congestion. If the price of the bid is \$50/MWh or 200 percent greater than the BEEP Interval Ex Post Price at that location (zone or node) commensurate with the relevant**

**pricing structure in effect in accordance with the ISO Tariff, the bid price shall be mitigated to the reference price and the Scheduling Coordinator for that resource shall be paid the greater of the reference price or the relevant BEEP Interval Ex Post Price. Bids mitigated in accordance with this section 3.2.2.2 shall not set the BEEP Interval Ex Post Price.**

### 3.2.3. Section 205 Filings

In addition, the ISO shall make a filing under Section 205 with the Commission seeking authorization to apply an appropriate mitigation measure to conduct that departs significantly from the conduct that would be expected under competitive market conditions but does not rise to the thresholds specified in Section 3.1.1 above, unless the ISO determines, from information provided by the Market Participant or Parties that would be subject to mitigation or other information available to the ISO that the conduct is attributable to legitimate competitive market forces or incentives. The following are examples of conduct that are deemed to depart significantly from the conduct that would be expected under competitive market conditions:

- (1) bids that vary with unit output in a way that is unrelated to the known performance characteristics of the unit, or
- (2) bids that vary over time in a manner that appears unrelated to the change in the unit's performance or to changes in the supply environment that would induce additional risk or other adverse shifts in the cost basis.

The above are intended as examples rather than a comprehensive list.

### 3.3 Consultation with a Market Participant

If a Market Participant anticipates submitting bids in an ISO market administered by the ISO that will exceed the thresholds specified in Section 3.1 above for identifying conduct inconsistent with competition, the Market Participant may contact the ISO to provide an

explanation of any legitimate basis for any such changes in the Market Participant's bids. If a Market Participant's explanation of the reasons for its bidding indicates to the satisfaction of the ISO, that the questioned conduct is consistent with competitive behavior, no further action will be taken. Upon request, the ISO shall also consult with a Market Participant with respect to the information and analysis used to determine reference levels under Section 3.1.2 for that Market Participant.

#### 4. MITIGATION MEASURES

##### 4.1. Purpose

If conduct is detected that meets the criteria specified in Section 3, the appropriate mitigation measure described in this Section 4 shall be applied by the ISO. The conduct specified in Section 3.1.1 shall be remedied by the prospective application of a default bid measure as described in Section 4.2 for the specific hour that they violate the price and market impact thresholds.

##### 4.2. Sanctions for Economic Withholding

###### 4.2.1. Default Bid

A default bid shall be designed to cause a Market Participant to bid as if it faced workable competition during a period when: (i) the Market Participant does not face workable competition and (ii) has responded to such condition by engaging in the economic withholding of an Electric Facility. In designing and implementing default bids, the ISO shall seek to avoid causing an Electric Facility to bid below its marginal cost.

###### 4.2.2. Implementation

- (a) If the criteria contained in Section 3 are met, the ISO may substitute a default bid for a bid submitted for an Electric Facility. The default bid shall establish a maximum value for ~~one or more~~ **each** components of the submitted bid, equal to a reference level for that component determined as specified in Section 3.1.1.

- (b) The Mitigation Measures will be applied to 1) ~~the Residual Unit Commitment Process based on the projected Real-Time MCPs that are computed during this process;~~ 2) all bids submitted to the Real Time Imbalance Energy Market during the pre-dispatch process prior to the Real Time Imbalance Energy Market based on the projected Real-time MCPs that are computed during this process; and 3) bids submitted to the ~~d~~Day-ahead and the ~~h~~Hour-ahead ~~e~~Energy markets when these markets are made operational.
- ~~(c) The bids that are mitigated in the Residual Unit Commitment Process shall be retested for both conduct and impact thresholds in the real time pre-dispatch process, and if the pre-dispatch market impact threshold is not violated, shall be included in the real time supply stack at their original (unmitigated) prices.~~
- (cd) An Electric Facility subject to a default bid shall be paid the MCP applicable to the output from the facility. Accordingly, a default bid shall not limit the price that a facility may receive unless the default bid determines the MCP applicable to that facility. ~~With regards to imports into the ISO Control Area, importers will be paid the higher of the MCP or their default bid price. However, default bids by importers will not establish the MCP.~~
- (d) The suppliers of bids from imports into the ISO Control Area may establish and be paid the MCP in the first BEEP Interval in an hour in which their bid is Dispatched by the ISO. The suppliers of bids for imports to the ISO Control Area shall be paid the price of their bid in other BEEP Intervals in which their bids are Dispatched by the ISO but the price of the bid is greater than the MCP. The suppliers of bids for imports to the ISO Control Area shall be paid the MCP in BEEP Intervals in which their bid price is less than or equal to the MCP. The suppliers of bids within the ISO Control Area Dispatched out of economic merit order to



**mitigate Intra-Zonal Congestion shall be paid the higher of the MCP or their default bid price but their bid shall not establish the MCP.**

- (e) The ISO shall not use a default bid to determine revised MCPs for periods prior to the imposition of the default bid, except as may be specifically authorized by the Commission.
- ~~(f) The Mitigation Measures shall not be applied for the hours when the day-ahead system load forecast exceeds 40,000 MW. However, the bids used during the hours when the day-ahead system load exceeds 40,000 MW, even if in economic merit order, shall be excluded from the computation of the Reference Levels.~~
- (f) The Mitigation Measures shall not be applied to Energy bids projected to be Dispatched as Imbalance Energy through the BEEP stack in the hours in which all Zonal BEEP Interval Ex Post Prices are projected to be below \$91.87/MWh.**
- (g) The Mitigation Measures shall not be applied to bids below \$25/MWh.**
- ~~(gh)~~ The posting of the MCP may be delayed if necessary for the completion of automated mitigation procedures.
- ~~(hi)~~ Bids not mitigated under these Mitigation Measures shall remain subject to mitigation by other procedures specified in the ISO Tariff as may be appropriate.

#### 4.3. Sanctions for Physical Withholding

The ISO may report a Market Participant the ISO believes to have engaged in physical withholding, including providing the ISO false information regarding the derating or outage of an Electric Facility, to the Federal Energy Regulatory Commission in accordance with Section 2.3.3.9.5 of the ISO Tariff. In addition, a Market Participant that fails to operate a Generating

Unit in conformance with ISO dispatch instructions shall be subject to the penalties set forth in Section 11.2.4.1.2 of the ISO Tariff.

#### **4.4 Duration of Mitigation Measures**

Bids will be mitigated only in the specific hour that they violate the price and market impact thresholds.

#### **5. FERC-ORDERED MEASURES**

In addition to any mitigation measures specified above, the ISO shall administer, and apply when appropriate in accordance with their terms, such other mitigation measures as it may be directed to implement by order of the FERC.

#### **6. DISPUTE RESOLUTION**

If a Market Participant has reasonable grounds to believe that it has been adversely affected because a Mitigation Measure has been improperly applied or withheld, it may seek a determination in accordance with the dispute resolution provisions of the ISO Tariff. In no event, however, shall the ISO be liable to a Market Participant or any other person or entity for money damages or any other remedy or relief except and to the extent specified in the ISO Tariff.

#### **7. EFFECTIVE DATE**

These Mitigation Measures shall be effective as of the date they are approved by the FERC.

## **ATTACHMENT C**

**NOTICE OF FILING SUITABLE FOR PUBLICATION  
IN THE FEDERAL REGISTER**

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

<b>California Independent System Operator Corporation</b>	)	<b>Docket No. ER02-1656-000</b>
	)	
<b>Investigation of Wholesale Rates of Public Utility Sellers of Energy and Ancillary Services in the Western Systems Coordinating Council</b>	)	<b>Docket No. EL01-68-017</b>
	)	
	)	
	)	

**Notice of Compliance Filing**

[ ]

Take notice that on August 16, 2002, the California Independent System Operator Corporation (ISO) submitted a filing in compliance with the Commission's July 17, 2002 "Order On the California Comprehensive Market Redesign Proposal," 100 FERC ¶ 61,060 (2002), issued in the above-referenced dockets. The ISO has served this filing upon all parties in the above-referenced dockets.

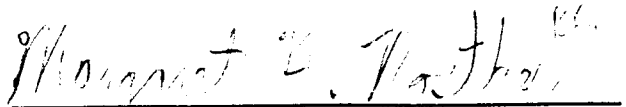
Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 C.F.R. §§ 385.211, 385.214). All such motions and protests should be filed on or before [ ], 2002. Protests will be considered by the Commission to determine the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection. This filing may also be viewed on the Internet at <<http://www.ferc.gov>> using the "RIMS" link, select "Docket#" and follow the instructions (call 202-208-2222 for assistance). Comments, protests,

and interventions may be filed electronically via the Internet in lieu of paper. See 18 C.F.R. § 385.2001(a)(1)(iii) and the instructions on the Commission's Internet site under the "e-Filing" link.

## **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the Compliance Filing upon each person designated on the official service list compiled by the Secretary in the above-captioned dockets.

Dated at Folsom, California, on this 16th day of August, 2002.

A handwritten signature in cursive script, reading "Margaret A. Rostker", written over a horizontal line.

Margaret A. Rostker  
Counsel for The California Independent  
System Operator Corporation