

which are being self provided the Energy Bid shall be used to determine the position of the Generating Unit, Load, System Unit or System Resource in the merit order for real time Dispatch, subject to the limitation on the Dispatch of Spinning Reserve and Non-Spinning Reserve set forth in Section 2.5.22.3.

**2.5.22.4 Supplemental Energy Bids.** In addition to the Generating Units, Loads and System Resources which have been scheduled to provide Ancillary Services in the Day-Ahead and Hour-Ahead markets, the ISO may Dispatch Generating Units, Loads or System Resources for which Scheduling Coordinators have submitted Supplemental Energy bids.

**2.5.22.4.1 Timing of Supplemental Energy Bids.**

Supplemental Energy bids must be submitted to the ISO no later than forty-five (45) minutes prior to the operating hour. Bids may also be submitted at any time after the Day-Ahead Market closes. These Supplemental Energy bids cannot be withdrawn after forty-five (45) minutes prior to the Settlement Period, except that a bid from a System Resource may specify that any portion of the bid that is not called prior to the beginning of the Settlement Period shall not be called after the beginning of the Settlement Period. The ISO may dispatch the associated resource at any time during the Settlement Period.

**2.5.22.4.2 Form of Supplemental Energy Bid Information.**

Supplemental Energy bids must include the following:

- (a) Bidder name and identification;
- (b) Resource name, identification, and location;
- (c) the positive or negative bid price of incremental and decremental changes in Energy (up to eleven ordered pairs of quantity/price representing up to ten steps);

- (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.

**2.5.22.5 Information used in the Real Time Dispatch.** The ISO shall place all the bid price information (except for Regulation bid prices and Adjustment Bids carried forward from the Day-Ahead and Hour-Ahead Markets) received from available Generating Units, Loads, System Units and System Resources in a database for use in real time Dispatch of Balancing Energy. The database shall indicate:

If the ISO declares a System Emergency, e.g. during times of supply scarcity, and involuntary load shedding occurs during the real time Dispatch, the ISO shall set the Hourly Ex Post Price at the Administrative Price.

**2.5.23.3 Temporary Limitation on BEEP Interval Ex Post Prices**

**2.5.23.3.1 Limitation.**

**2.5.23.3.1.1 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 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 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 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 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.

**2.5.23.3.6 Emissions Costs**

**2.5.23.3.6.1 Obligation to Pay Emissions Cost Charges**

Each Scheduling Coordinator shall be obligated to pay a charge which will be used to pay the verified Emissions Costs incurred by a Must-Offer Generator as a direct result of an ISO Dispatch instruction, in accordance with this Section 2.5.23.3.6. The ISO shall levy this administrative charge (the "Emissions Cost Charge") each month, against all Scheduling Coordinators based upon each Scheduling Coordinator's Control Area Gross Load and Demand within California outside of the ISO Control Area that is served by exports from the ISO Control Area. Scheduling Coordinators shall make payment for all Emissions Cost Charges in accordance with the ISO Payments Calendar.

**2.5.23.3.6.2 Emissions Cost Trust Account**

All Emissions Cost Charges received by the ISO shall be deposited in the Emissions Cost Trust Account. The Emissions Cost Trust Account shall be an interest-bearing account separate from all other accounts maintained by the ISO, and no other funds shall be commingled in it at any time.

**2.5.23.3.6.3 Rate For the Emissions Cost Charge**

The rate at which the ISO will assess the Emissions Cost Charge shall be at the projected annual total of all Emissions Costs incurred by Must-Offer Generators as a direct result of ISO

the ISO will assess the Emissions Cost Charge in accordance with Section 2.5.23.3.6.4. Any outstanding Emissions Costs owed from previous months will be paid in the order of the month in which such costs were invoiced to the ISO. The ISO's obligation to pay Emissions Costs is limited to the obligation to pay Emissions Cost Charges received. All disputes concerning payment of Emissions Cost Invoices shall be subject to ISO ADR Procedures, in accordance with Section 13 of this ISO Tariff.

**2.5.23.3.7 Start-Up Fuel Costs**

**2.5.23.3.7.1 Obligation to Pay Start-Up Fuel Cost Charges**

Each Scheduling Coordinator shall be obligated to pay a charge which will be used to pay the verified Start-Up Fuel Costs incurred by a Must-Offer Generator as a direct result of an ISO Dispatch instruction, in accordance with this Section 2.5.23.3.7. The ISO shall levy this charge (the "Start-Up Fuel Cost Charge"), each month, against all Scheduling Coordinators based upon each Scheduling Coordinator's Control Area Gross Load and Demand within California outside of the ISO Control Area that is served by exports from the ISO Control Area. Scheduling Coordinators shall make payment for all Start-Up Fuel Cost Charges in accordance with the ISO Payments Calendar.

**2.5.23.3.7.2 Start-Up Fuel Cost Trust Account**

All Start-Up Fuel Cost Charges received by the ISO shall be deposited in the Start-Up Fuel Cost Trust Account. The Start-Up Fuel Cost Trust Account shall be an interest-bearing account separate from all other accounts maintained by the ISO, and no other funds shall be commingled in it at any time.

**2.5.23.3.7.3 Rate For the Start-Up Fuel Cost Charge**

The rate at which the ISO will assess the Start-Up Fuel Cost Charge shall be at the projected annual total of all Start-Up Fuel Costs incurred by Must-Offer Generators as a direct result of

ISO may credit or debit, as appropriate, the account of a Scheduling Coordinator for any over- or under-assessment of Start-Up Fuel Cost Charges that the ISO determines occurred due to the error, omission, or miscalculation by the ISO or the Scheduling Coordinator.

**2.5.23.3.7.6 Submission of Start-Up Fuel Cost Invoices**

Scheduling Coordinators for Must-Offer Generators that incur Start-Up Fuel Costs as a direct result of an ISO Dispatch instruction or if the ISO revokes a waiver from compliance with the must-offer obligation while the unit is off-line in accordance with Section 5.11.6 of this ISO Tariff may submit to the ISO an invoice in the form specified on the ISO Home Page (the "Start-Up Fuel Cost Invoice") for the recovery of such Start-Up Fuel Costs. Such Start-Up Fuel Costs shall not exceed the costs which would be incurred within the start-up time for a unit specified in Schedule 1 of the Participating Generator Agreement. Start-Up Fuel Cost Invoices shall use the applicable proxy figure for natural gas costs as determined in accordance with Section 2.5.23.3.4 and posted on the ISO Home Page. Start-Up Fuel Cost Invoices shall not include any Start-Up Fuel Costs specified in an RMR Contract for a unit owned or controlled by a Must-Offer Generator.

**2.5.23.3.7.7 Payment of Start-Up Fuel Cost Invoices**

The ISO shall pay Scheduling Coordinators for all Start-Up Fuel Costs submitted in a Start-Up Fuel Cost Invoice and demonstrated to be a direct result of an ISO Dispatch instruction. The ISO shall pay such Start-Up Fuel Cost Invoices each month in accordance with the ISO Payments Calendar from the funds available in the Start-Up Fuel Cost Trust Account. To the extent there are insufficient funds available in the Start-Up Fuel Cost Trust Account in any month to pay all Start-Up Fuel Costs submitted in a Start-Up Fuel Cost Invoice and demonstrated to be a direct result of an ISO Dispatch instruction, the ISO shall make pro rata payment of such Start-Up Fuel Costs and shall adjust the rate at which the ISO will assess the Start-Up Fuel Cost Charge in accordance with Section 2.5.23.3.7.4. Any outstanding Start-Up Fuel Costs owed from previous months will be paid in the order of the month in which such costs were invoiced to

the ISO. The ISO's obligation to pay Start-Up Fuel Costs is limited to the obligation to pay Start-Up Fuel Cost Charges received. All disputes concerning payment of Start-Up Fuel Cost Invoices shall be subject to ISO ADR Procedures, in accordance with Section 13 of this ISO Tariff.

**2.5.23.3.8 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 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 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 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 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.

**2.5.24 Verification of Performance of Ancillary Services.**

Availability of both contracted and self provided Ancillary Services shall be verified by the ISO by unannounced testing of Generating Units, Loads and System Resources, by auditing of response to ISO Dispatch instructions, and by analysis of the appropriate Meter Data, or interchange schedules. Participating Generators, owners or operators of Loads, operators of System Units or System Resources and Scheduling Coordinators shall notify the ISO immediately whenever they become aware that an Ancillary Service is not available in any way.

**Payments.**

Scheduling Coordinators for owners of Reliability Must-Run Units (or Black Start Generators, as the case may be) shall receive the following payments for Energy output from Black Start facilities:

$$BSEN_{ijt} = (EnQBS_{ijt} * EnBid_{ijt}) + BSSUP_{ijt} - Adjustment$$

where BSSUP<sub>ijt</sub> is the start-up payment for a Black Start successfully made by Generating Unit i of Scheduling Coordinator j (or Black Start Generator j) in Trading Interval t calculated in accordance with the applicable Reliability Must-Run Contract (or the Interim Black Start agreement as the case may be).

**2.5.27.7 Temporary Limitation on Ancillary Service Prices.**

**2.5.27.7.1 Limitation During Price Mitigation Reserve Deficiencies**

Notwithstanding any other provision of the ISO Tariff, effective June 21, 2001, 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 Limitation During Non-Price Mitigation Reserve Deficiencies**

Notwithstanding any other provision of the ISO Tariff, effective June 21, 2001, 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 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 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.



under this ISO Tariff) subject to control by the ISO during a System Emergency and in circumstances in which the ISO considers that a System Emergency is imminent or threatened. The ISO shall, subject to Section 5.6.2, have the authority to instruct a Participating Generator to bring its Generating Unit on-line, off-line, or increase or curtail the output of the Generating Unit and to alter scheduled deliveries of Energy and Ancillary Services into or out of the ISO Controlled Grid, if such an instruction is reasonably necessary to prevent an imminent or threatened System Emergency or to retain Operational Control over the ISO Controlled Grid during an actual System Emergency.

**5.6.2** The ISO shall, where reasonably practicable, utilize Ancillary Services which it has the contractual right to instruct and which are capable of contributing to containing or correcting the actual, imminent or threatened System Emergency prior to issuing instructions to a Participating Generator under Section 5.6.1.

**5.6.3 [Not Used]**

**[Page Not Used]**

each non-hydroelectric Generating Unit located in California they own or control: (i) the Unit's minimum operating level; (ii) the Unit's maximum operating level; and (iii) the Unit's ramp rates at all operating levels; and (iv) such other information the ISO determines is necessary to determine available generation and to dispatch Must-Offer Generators. In addition, Must-Offer Generators that are not Participating Generators must, consistent with the notification obligations of Participating Generators and in order to comply with the intent of this Section 5.11, notify the ISO, as soon as practicable, of any Planned Maintenance Outages, Forced Outages, Force Majeure Event outages or any other reductions in their maximum operating levels.

#### **5.11.4 Obligation To Offer Available Capacity**

All Must-Offer Generators shall offer to sell in the ISO's Real Time Market for Imbalance Energy, in all hours, all their Available Generation as defined in Section 5.11.2.

#### **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: (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.

#### **5.11.6 Waiver of Must-Offer Obligation**

Must-Offer Generators may seek a waiver of the obligation to offer all available capacity, as set forth in Section 5.11.4 of this ISO Tariff, for one or more of their generating units for periods other than Self-Commitment Periods, which are defined as the hours when Must-Offer Generators submit Energy Schedules or are awarded Ancillary Services bids or self-provision schedules. Self-Commitment Periods determined from Day-Ahead Schedules shall be extended by the ISO as necessary to accommodate generating unit minimum up and down times such that the scheduled operation is feasible. If a Must-Offer Generator has a Final Schedule in the Day-Ahead Market, such a generator will be deemed to be self-committed for the ensuing 24-hour period and not eligible for a waiver until the

next Day-Ahead Market in which it is not Scheduled. All other Must-Offer Generators obligated under the Must-Offer Obligation will be deemed to have requested a waiver, either implicitly or explicitly, of the obligation to offer all available capacity. If conditions permit, and at the ISO's non-discriminatory and sole discretion, the ISO may grant waivers and allow a Must-Offer Generator to remove one or more generating units from service during

hours outside Self-Commitment Periods. The ISO shall grant waivers so as to: 1) provide sufficient on-line generating capacity to meet operating reserve requirements; and 2) account for other physical operating constraints, including generating unit minimum up and down times. The hours outside of Self-Commitment Periods for which waivers are not granted shall constitute Waiver Denial Periods. The Waiver Denial Period shall be extended as necessary to accommodate generating unit minimum up and down times. Units shall be on-line in real time during both Self-Commitment and Waiver Denial Periods, or they will be in violation of the must-offer obligation. Exceptions shall be allowed for verified forced outages. The must-offer obligation will remain in effect for a unit's Self-Commitment Period even if the Must-Offer Generator nullifies its Day-Ahead Energy Schedules or buys back its Day-Ahead Schedules for a unit in the Hour-Ahead market. The ISO may revoke waivers as necessary due to outages, changes in Load forecasts, or changes in system conditions. The ISO shall determine which waiver(s) will be revoked, and shall notify the relevant Scheduling Coordinator(s). The ISO shall inform a Must-Offer Generator that its waiver request has been accepted, denied, or revoked, and shall provide the Must-Offer Generator with the reason(s) for the decision, which reasons shall be non-discriminatory.

#### **5.11.6.1 Recovery of Minimum Load Costs By Must-Offer Generators**

##### **5.11.6.1.1 Eligibility**

Units from Must-Offer Generators that incur Minimum Load Costs during Self-Commitment Periods or during hours for which the ISO has granted to them a waiver shall not be eligible to recover such costs for such hours. When a Must-Offer Generator is awarded Ancillary Services in the Hour-Ahead market or has a Final Hour-Ahead Schedule, the Must-Offer Generator shall not be eligible to recover Minimum Load Costs for any such hours within a Waiver Denial Period. When, on an hourly basis, a Must-Offer Generator produces a quantity of Energy that varies by more than the greater of: (i) five (5) MWh or (ii) an hourly Energy amount equal to three (3) percent (%) of the unit's maximum operating output, the Must-Offer Generator shall not be eligible to recover Minimum Load Costs for any such hours within a

Waiver Denial Period. Subject to the foregoing eligibility restrictions set forth in this section, the the ISO shall pay to an otherwise eligible Must-Offer Generator the Minimum Load Costs for each hour within a Waiver Denial Period that the generating unit runs at Minimum Load in compliance with the Must-Offer Obligation.

**5.11.6.1.2 Minimum Load Costs**

The Minimum Load Costs shall be calculated as the sum, for all eligible hours in the Waiver Denial Period, of: 1) the product of the unit's average heat rate (as determined by the ISO from the data provided in accordance with Section 2.5.23.3.3) at the unit's minimum operating level as set forth in Schedule 1 of the Generating Unit's Participating Generator Agreement and the proxy figure for natural gas costs posted in the ISO Home Page in effect at the time, and the unit's minimum operating level as set forth in Schedule 1 of the Generating Unit's Participating Generator Agreement and 2) the product of the unit's minimum operating level as set forth in Schedule 1 of the Generating Unit's Participating Generator Agreement and \$6/MWh.

**5.11.6.1.3 Invoicing Minimum Load Costs**

The ISO shall determine each Scheduling Coordinator's Minimum Load Costs and make payments for these costs as part of the ISO's market settlement process. Scheduling Coordinators may

submit to the ISO data detailing the hours for which they are eligible to recover Minimum Load Costs. Scheduling Coordinators who elect to submit data on hours they are eligible to recover Minimum Load Costs must: 1) use the Minimum Load Cost Invoice template posted on the ISO Home Page, and 2) submit the invoice on or before fifteen (15) business days following the last Trading Day in the month in which such costs were incurred, except that Scheduling Coordinators seeking reimbursement for Minimum Load Costs incurred between May 29, 2001, and June 30, 2002 must submit their data to the ISO by August 5, 2002.

**5.11.6.1.4 Allocation of Minimum Load Costs**

Minimum Load Costs for each unit's Waiver Denial Period shall be evenly divided over all eligible hours of such Waiver Denial Period. For each such hour, the total Minimum Load Costs shall be allocated to each Scheduling Coordinator in proportion to the sum of that Scheduling Coordinator's Load and Demand within California outside the ISO Control Area that is served by exports to the sum of the ISO Control Area Gross Load and the projected Demand within California outside the ISO Control Area that is served by exports from the ISO Control Area of all Scheduling Coordinators.



Controlled Grid, unless: (a) the ISO Governing Board reviews the basis for the charges above that level and approves the collection of charges above that level for a defined period; and (b) the ISO provides at least seven days' advance notice to Scheduling Coordinators of the determination of the ISO Governing Board.

**11.2.10 Payments Under Section 2.3.5.1 Contracts**

The ISO shall calculate and levy charges for the recovery of costs incurred under contracts entered into by the ISO under the authority granted in Section 2.3.5.1 in accordance with Section 2.3.5.1.8 of this ISO Tariff.

**11.2.11 FERC Annual Charge Recovery Rate**

The ISO shall calculate and levy the rates for recovery of FERC Annual Charges in accordance with Section 7.5 of this ISO Tariff.

**11.2.12 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;
- c) payments for Instructed Imbalance Energy; and
- d) payments for Minimum Load Costs.

**11.2.13 Emissions and Start-Up Fuel Cost Charges**

The ISO shall calculate, account for and settle charges and payments for Emissions Costs and Start-Up Fuel Costs in accordance with Sections 2.5.23.3.6 and 2.5.23.3.7 of this ISO Tariff.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
FERC ELECTRIC TARIFF  
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