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July 18, 2003

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

**Re: California Independent System Operator Corporation
Addendum to June 30, 2003 Compliance Filing
Docket No. ER03-683-___**

Dear Secretary Salas:

The California Independent System Operator Corporation (“ISO”) hereby submits six copies of an addendum to its compliance filing made on June 30, 2003 in the above captioned proceeding. The instant addendum to the compliance filing is necessary to fully comply with the Commission’s May 30, 2003 order (“Amendment No. 50 Order”) in the above-captioned docket concerning Amendment No. 50 to the ISO Tariff, providing the language necessary to determine reference levels for decremental bids as discussed in that order.¹

In the Amendment No. 50 Order, the Commission directed that the ISO utilize reference prices for decremental bids. *See* 103 FERC at P 41. The Commission stated:

Furthermore, as the CAISO has acknowledged, and as discussed below, there are inaccuracies inherent in identifying a generating unit’s costs using a cost-based proxy bid. We agree with intervenors that these inaccuracies are significant and that a reference price is a superior market-based proxy to the CAISO’s proposal. We therefore require that the CAISO use reference prices for dec bids to be administered by an independent entity, and applied to all generators – thermal and non-thermal.

Id.


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

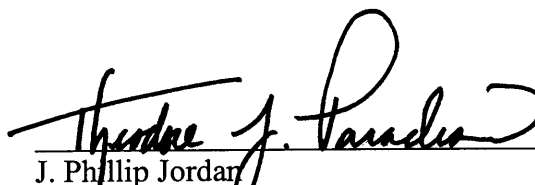
The ISO and Potomac Economics, the entity that determines the reference prices used in the Automatic Mitigation Procedures ("AMP"), have agreed on a methodology for calculating decremental reference prices. The methodology used is set forth in the proposed new Section 7.2.6.1.1. The ISO did not include the decremental reference price methodology in Appendix A to the Market Monitoring and Information Protocol because the decremental reference price is not used in the AMP, but is only used for mitigating Intra-Zonal Congestion. In addition to laying out the order of techniques used to determine the decremental reference price, this new section indicates how the decremental reference curve will be made monotonic. Bid curves used in the ISO's market systems must be monotonic (i.e., staircase bid curve must be non-decreasing from the lowest to highest bid-in output range of the resource) to ensure a proper solution is reached.

The changes described above are contained in the revised Tariff sheets provided in Attachment A to the present filing. These changes are shown in black-line format in Attachment B. A copy of the letter for Potomac Economics outlining the methodology for calculating decremental reference prices is included at Attachment C. In addition, a form of notice of filing, suitable for publication in the Federal Register, as well as a computer diskette containing the notice in WordPerfect format is provided at Attachment D.

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,


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ATTACHMENT A

according to the decremental reference prices thus established, the resource's effectiveness on the Congestion, and other relevant factors such as Energy limitations, existing contractual restrictions, and Regulatory Must-Run or Regulatory Must-Take status, to alleviate the Congestion after Final Hour-Ahead Schedules are issued. Where the ISO must reduce a Generating Unit's output, the ISO shall Dispatch Generating Units according to the decremental reference prices and not according to Adjustment Bids or Supplemental Energy Bids to alleviate Intra-Zonal Congestion. No Generating Unit shall be Dispatched below its minimum operating level or above its maximum operating level. No Reliability Must-Run Unit shall be Dispatched below the operating level determined by the ISO as necessary to maintain reliability. If Congestion still exists after all Generating Units are Dispatched to their minimum operating levels, the ISO shall instruct Generating Units to shut off in merit order based on their decremental reference prices at minimum load, beginning with the most expensive unit.

The ISO shall apply the decremental reference prices to thermal Generating Units and to non-thermal Generating Units.

If the ISO Dispatches System Resources or Dispatchable Loads to alleviate Intra-Zonal Congestion, the ISO shall Dispatch those resources in merit order according to the resource's Day-Ahead or Hour-Ahead Adjustment Bid or Imbalance Energy bid.

The ISO shall only redispatch Regulatory Must-Take or Regulatory Must-Run Generation, Intermittent Resources, or Qualifying Facilities to manage Intra-Zonal Congestion after redispatching all other available and effective generating resources, including Reliability Must-Run Units.

7.2.6.1.1 Decremental Bid Reference Levels. Decremental bid reference levels shall be determined for use in managing Intra-Zonal Congestion as set forth above in Section 7.2.6.1.

(a) Determination. Decremental bid reference levels shall be determined by applying the following steps in order as needed:

1. Excluding proxy bids, mitigated bids, and bids used out of merit order for managing Intra-Zonal Congestion, the accepted decremental bid, or the lower of the mean or the median of a resource's accepted decremental bids if such a resource has more than one accepted decremental bid 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. Accepted and justified decremental bids below the applicable soft cap, as set forth in Section 28.1.3 of this Tariff, will be included in the calculation of reference prices;
2. 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 in accordance with specifications provided by the ISO or the independent entity responsible for determining reference prices;
3. 90 percent of the unit's default Energy Bid determined monthly as set forth in Section 5.11.5 (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);
4. 90 percent of 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) Monotonicity.

The decremental bid reference levels (\$/MWh bid price) for the different bid segments of each resource shall be made monotonically non-decreasing by the ISO by proceeding from the highest MW bid segment moving through each lower MW bid segment. The reference level of each succeeding bid segment, moving from right to left in order of decreasing operating level, shall be the lower of the reference level of the preceding bid segment or the reference level determined according to paragraph (a) above.

7.2.6.1.2 [Not Used]

ATTACHMENT B

7.2.6.1.1 Decremental Bid Reference Levels. Decremental bid reference levels shall be determined for use in managing Intra-Zonal Congestion as set forth above in Section 7.2.6.1.

(a) Determination.

Decremental bid reference levels shall be determined by applying the following steps in order as needed:

1. Excluding proxy bids, mitigated bids, and bids used out of merit order for managing Intra-Zonal Congestion, the accepted decremental bid, or the lower of the mean or the median of a resource's accepted decremental bids if such a resource has more than one accepted decremental bid 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. Accepted and justified decremental bids below the applicable soft cap, as set forth in Section 28.1.3 of this Tariff, will be included in the calculation of reference prices;
2. 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 in accordance with specifications provided by the ISO or the independent entity responsible for determining reference prices;
3. 90 percent of the unit's default Energy Bid determined monthly as set forth in Section 5.11.5 (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);
4. 90 percent of 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) Monotonicity.

The decremental bid reference levels (\$/MWh bid price) for the different bid segments of each resource shall be made monotonically non-decreasing by the ISO by proceeding from the highest MW bid segment moving through each lower MW bid segment. The reference level of each succeeding bid segment, moving from right to left in order of decreasing operating level, shall be the lower of the reference level of the preceding bid segment or the reference level determined according to paragraph (a) above.

ATTACHMENT C

PLAN FOR CALCULATING DECREMENTAL REFERENCE LEVELS

Background

Currently, the AMP Reference Level Calculation (RLC) Software calculates the incremental Reference Levels (RLs) for Resources (generators, loads (e.g. pumped storage facilities), and intertie schedules) that bid into the California Independent System Operator's (CAISO) real-time supplemental energy market. The Software was developed in accordance with the CAISO tariff which states that incremental RLs are an input to CAISO's Automated Mitigation Procedure (AMP).

The AMP is not currently used for local market power. However, on May 30, 2003, the FERC ordered the CAISO to prevent the exercise of local market power associated with intra-zonal congestion by mitigating decremental bids. Rather than mitigating the bids to a proxy level proposed by the CAISO, FERC ordered that the bids be mitigated to a reference level. Hence, the CAISO must be provided with an additional set of RLs for decremental bids.

Proposal

The RL for a particular resource is an estimate of the marginal cost of producing additional output from that resource. There are principally 5 possible sources for RLs for resources that are applied in the following order of priority if available: (1) bid-based (from accepted in-merit incremental bids in past 90 days); 2) consultation-based (based on data submitted by market participant); 3) default-based (based on heat-rates and O&M costs submitted to ISO); 4) MCP-based (based on clearing prices at the resources location during hours and levels the resource was operating); 5) estimate-based (based on estimates by ISO or Potomac Economics).

It is possible that a competitively-priced incremental bid for a particular output segment of a supply resource may not be the same as a competitively-priced decremental bid for the same output segment. This is because the marginal cost of producing may not be the same as the avoided cost of not producing for all parts of all units. In addition, the incremental RL

methodology employs a number of assumptions that ensure the RLs are not understated. To the extent these assumptions and procedures cause incremental RLs to be slightly overstated, they would not be appropriate for mitigating the decremental bids. Therefore, the RL formulation used for decremental bids should allow them to differ from incremental RLs when the marginal production costs of a unit differ from the avoided costs from not producing for a particular resource.

The methodology used to calculate decremental RLs will differ from the one used to calculate incremental RLs in several ways:

1. The bid-based RL information will be calculated from 90 days of accepted in-merit decremental bids rather than incremental bids. Units decremented for intra-zonal congestion would be excluded.¹
2. Consultative values will be calculated separately for incremental and decremental RLs.
 - Consultative-based RL information that is applicable to incremental RLs may not be applicable to decremental RLs. Participants should have the opportunity to submit different cost information for each.
 - If participants do not submit cost information for decremental RLs that differs from information for incremental RLs, consultative decremental RLs will be equal to consultative incremental RLs multiplied by a 90 percent factor.
3. Default-based and MCP-based RLs will be calculated similarly for incremental and decremental RLs, although a 90 percent factor be applied for the decremental RLs.²
4. Non-increasing portions of decremental RLs will be *lowered* to ensure the entire RL range for a unit is monotonically increasing. The CAISO dispatch model requires that supplemental bids be monotonically increasing (i.e. flat or increasing for the entire range), so non-increasing portions of incremental RLs are raised until the entire range is monotonically increasing. This errs on the side of raising RLs to avoid unjustifiably mitigating units, however, this assumption may be harmful when applied to decremental RLs.

¹ Normally, only bids for output ranges that are actually produced are appropriate for determining reference prices. However, since a supplier is financially bound to purchase the decremented output from the CAISO imbalance market, the accepted decremental bid to *not* produce should be an accurate indicator of the resource's avoided costs and can appropriately be used to determine the decremental RL.

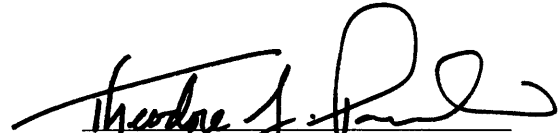
² However, it is possible that Potomac Economics will apply methodologies for estimate-based RLs that are different for decremental RLs than incremental RLs.

ATTACHMENT D

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding. The foregoing document has also been served on the Public Utilities Commission of California, the California Energy Commission, the California Electricity Oversight Board, all entities with effective Scheduling Coordinator Service Agreements under the ISO Tariff.

Dated this 18th day of July at Washington in the District of Columbia.


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