

Memorandum

To: ISO Board of Governors
From: Jim Detmers, Vice President, Operations
cc: ISO Officers
Date: July 9, 2007
Re: Price Validation and Correction and Standard of Liability under MRTU

This memorandum requires Board action.

EXECUTIVE SUMMARY

The CAISO is seeking Board approval to file two new proposals with the Federal Energy Regulatory Commission. The CAISO has always had authority under the ISO Tariff and the "filed rate" doctrine to validate and correct prices. With the addition of a Day Ahead Market and locational marginal pricing (LMP) under the Market Redesign and Technology Upgrade program (MRTU), the CAISO now proposes to add processes in the tariff for validating and correcting all the prices produced by the new market design under MRTU.

In addition, FERC requires the CAISO to include stakeholders in the development of the CAISO's price validation and correction policies and to file any necessary tariff language. The CAISO published a white paper on this issue, engaged with stakeholders, worked with consultants and examined the practices of other ISOs to distill their best practices. From the information developed through these processes, the CAISO is recommending the market validation and price correction process described below. In addition, the CAISO proposes to amend the standard of liability that would be applicable to the CAISO in certain actions for damages. Management proposes to replace the "negligence" standard currently in effect with the "gross negligence" in line with the standard of liability accepted by FERC for other ISOs and RTOs.

Moved, that the ISO Board of Governors approve the policy principles related to Price Validation and Correction as well as the change in the standard of liability from "negligence" to "gross negligence" as described in the memorandum dated July 9, 2007; and

That the ISO Board of Governors authorize Management to make all appropriate and necessary filings with the FERC in support of this policy proposal.

PRICE VALIDATION AND CORRECTION

The CAISO has always had authority, and has authority under the MRTU Tariff, to correct prices to ensure that the prices paid and the charges collected are consistent with the tariff. With the introduction of LMP pricing and a Day Ahead Market, the magnitude of the CAISO's price setting responsibility is substantially increased. Accordingly, and consistent with other ISOs and RTOs, the CAISO will be implementing business processes to ensure that prices are validated and corrected within reasonable time frames.

The CAISO has invested substantial time and effort reviewing the provisions of other ISOs and RTOs and has even visited the eastern ISOs to help ascertain which practices are best suited for the CAISO and are compatible with existing authority and procedures. For simplicity the CAISO has separated this initiative into two main tasks, both of which will be performed in the Market Services group. These two processes are Market Validation and Price Correction.

Market Validation

One of the insights that emerged clearly from the practices of the other ISOs was the importance of a real-time validation process to continuously monitor the price-setting process and to correct any anomalous results as soon as possible. The PJM Interconnection and the New England Independent System Operator (ISO-NE) both have such a system and the New York Independent System Operator (NYISO) has plans to move in this direction. Under MRTU, the CAISO will continuously monitor market clearing results to identify anomalous resource commitment, dispatch levels, and prices that may have resulted from erroneous input data and/or hardware/software failure of the market applications. All markets in Day Ahead and Real Time shall be subject to this Market Validation process. Although the CAISO will make every effort to validate market clearing processes and results prior to publication of results, this will not always be the case, particularly for Real Time markets.

The goal of the Market Validation process is to validate all final market solutions and to minimize the occurrence and length (number of market intervals) of intervals where invalid or problematic market solutions affect the dispatch or pricing of energy, Ancillary Services, and Residual Unit Commitment Capacity. Meeting this goal will minimize the number of corrections to prices published from such invalid market solutions, and will increase the quality of our dispatch and pricing. To accomplish this goal, the CAISO will closely monitor results from all final market runs, and if time permits, correct problems and re-run markets as necessary to minimize the number of post-publication Price Corrections

Once prices are published to the Open Access Same-Time Information System ("OASIS") for the first time, they are then subject to the second process, namely the Price Correction process. All prices from all markets are preliminary, or "reserved," until such time as CAISO completes the subsequent Price Correction process.

Price Correction

The Price Correction process is a comprehensive evaluation of all prices for all intervals for a given Trading Day. The CAISO is proposing to set a timetable for this process, such that all prices published to OASIS shall be validated on or before the end of the Price Correction Time Horizon. The CAISO has authority to correct prices if necessary after the Price Correction Time Horizon has expired for a given Trading Day, however, this timetable will indicate to Market Participants when the Price Correction Process is complete. In addition the CAISO will post a monthly Price Correction status report on its website which summarizes Price Corrections for all market runs for all Trading Days in that month. This report will include an account of any erroneous prices, and will describe what actions were taken to correct the market prices, including which intervals were affected and which Pricing Locations were corrected.

The goal of the Price Correction process is to correct invalid prices to conform with relevant CAISO Tariff provisions and to be consistent with prevalent market and system conditions. In the event that it is not feasible or practical to correct invalid prices to be perfectly consistent with the above stated goal, the prices will be corrected as close as is reasonably possible to the price that should have resulted under the Tariff, and that is consistent with the prevalent system conditions. Other RTOs have similar tariff authority. Price Corrections shall be made within a time certain following each Trading Day. The CAISO will update OASIS with corrected prices at the earliest time within the Price Correction Time Horizon, and will provide notification for each Trading Day when its comprehensive validation analyses for the Trading Day is complete. The CAISO has proposed the following staged Price Correction Time Horizon, which will move the CAISO towards a time frame broadly similar to other ISOs.

- Eight calendar days for the first 90 days of MRTU operations
- Five calendar days between the 91st day and the one year anniversary of the MRTU deployment
- Three calendar days beginning exactly one year after MRTU deployment.

Development of CAISO Proposal for Price Validation and Correction¹

The CAISO views this proposal as fairly uncontroversial as it is a standard feature of operation for the other eastern ISOs that have LMP systems. In October of 2006, a number of CAISO personnel visited three eastern ISOs, namely the PJM Interconnection, the New York Independent System Operator (NYISO) and the Independent System Operator of New England (ISO-NE). The purpose of these visits was to benefit from the experiences of these other ISOs so that the CAISO could start this process higher up the learning curve. Thereafter the CAISO formulated a white paper and gained internal consensus as to where this function should reside. After extensive discussion the CAISO personnel decided that the function should best reside in Market Services, although close cooperation with Grid Operations is required for the Market Validation aspect. The Price Correction aspect has historically resided in Market Services and this will continue. The CAISO then initiated a stakeholder process.

CHANGING THE STANDARD OF LIABILITY UNDER THE CAISO TARIFF

Under Section 14.5 of the MRTU Tariff, the CAISO is liable for direct and consequential damages from the performance or non-performance of its duties to the extent that the damages result from negligence or intentional wrongdoing. Under Section 14.4, each Market Participant must indemnify the CAISO against damages arising from the Market Participant's acts or omissions except in the case of the CAISO's negligence or intentional wrongdoing.² Under Section 14.6, Potomac Economics is held to the same standard of liability for calculations Default Energy Bids. The CAISO is proposing to amend the MRTU Tariff in each instance such that standard of liability would be limited to gross negligence or intentional wrongdoing. This change would be consistent with the standard of liability accepted by FERC for a number of other independent system operators (ISOs) and Regional Transmission Organizations (RTOs) including ISO New England, PJM, the Midwest ISO, and the Southwest Power Pool (SPP).

¹ Further details of the Market Validation and Price Correction process is available at <http://www.aiso.com/17ba/17ba873e19350.html> under the topic "Price Validation and Correction"

² The same standard is set forth in Sections 14.2, 14.3 and 14.4 of the currently effective ISO Tariff. These sections are identical to the sections in the MRTU Tariff except for numbering changes and the fact the Potomac Economics calculates reference levels under the currently effective tariff and will be calculating Default Energy Bids under the MRTU Tariff.

STAKEHOLDER PROCESS

FERC requires the CAISO to include stakeholders in the development of the CAISO's price validation and correction policies and to file any necessary tariff language. On June 15, 2007, the CAISO posted a white paper on its external website and sent out a market notice detailing the procedures for the stakeholder input. The CAISO received written comments from one stakeholder. On July 2, 2007, the CAISO hosted a conference call with market participants to discuss the written comment and any other comments or questions that market participants wanted to discuss concerning these proposals. Fifteen market participants participated and were generally supportive of both initiatives, Price Correction and Market Validation, as well as the change in the standard of liability, and the call ended early. No objections to these proposals were lodged by market participants during the stakeholder process.