



California Independent
System Operator Corporation

July 27, 2010

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER10-____ - 000**

**Amendments to California ISO FERC Electric Tariff to Price
Correction Timing Provisions**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d, and Part 35 of the Federal Energy Regulatory Commission's (FERC or the Commission) regulations, 18 C.F.R. Part 35, and in compliance with Order No. 714 regarding electronic filing of tariff submittals, the California Independent System Operator Corporation (ISO) hereby submits for filing the amendment to the ISO FERC Electric Tariff to modify its price correction timing provisions.

In this amendment, the ISO proposes to limit the timeframe that it can change posted prices to five days, unless the Commission orders otherwise. In addition, the ISO proposes to include additional detail in its tariff reflecting the ISO's ability to rectify price processing or publication issues within a limited time as specified in its Business Practice Manual (BPM), after which all posted prices will remain the same unless otherwise ordered by the Commission. The amendments provide market participants the requested price certainty, while providing a reasonable time frame within which the ISO can change posted prices to ensure that such market prices are consistent with the ISO's filed tariff requirements.

I. BACKGROUND

Since April 1, 2009, the ISO has successfully operated its energy and ancillary services markets under a new locational marginal pricing-based market design. As anticipated, this new market design has provided the ISO with a more effective congestion management system, a robust day-ahead market for trading and scheduling energy, system improvements to increase operational efficiency

and enhance reliability, a more transparent pricing system, improved market power mitigation measures, greater opportunities for participation of demand resources, and a process that respects the resource adequacy requirements established by the California Public Utilities Commission and Local Regulatory Authorities.

Under the ISO's new market design, before and after the ISO has posted prices, the ISO performs a price correction process to evaluate, validate, and correct prices to ensure that market settlement is consistent with the ISO tariff. The ISO makes all reasonable efforts to ensure that prices published to OASIS and the CAISO Market Results Interface (CMRI) and used for settlement and billing are calculated accurately, reflect all pertinent operational data and system conditions, and are consistent with ISO tariff provisions. The ISO continuously monitors all market-clearing software solutions 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 financially binding prices produced by the ISO day-ahead and real-time markets are subject to the price correction process. Price corrections and price changes may occur within a price correction process time horizon, which currently consists of a period of five calendar days after the relevant trading day. The ISO conducts price corrections during the price correction time horizon to the extent that the ISO determines that prices are not calculated correctly due to invalid market solutions or other issues that render the prices invalid due to input error, the failure of a market run or a component of a market run in any given interval, or the miscalculation of a price in a manner that inconsistent with the ISO tariff requirements. After the time horizon has expired, the ISO has only limited authority to adjust, recalculate, or otherwise correct prices after the conclusion of the price correction process time horizon. These requirements are specified under the ISO tariff Section 35, that were approved by the Commission on June 20, 2008.¹

After several months of experience with the new market design, the ISO began a thorough review and evaluation of its price correction process and overall market performance. Stakeholders have also indicated in various stakeholder forums, as well as at the ISO's regularly held Board of Governors meetings, that they highly value price certainty in the ISO's markets and are averse to price changes beyond the price correction time horizon. The ISO reviewed the results from and performance of its price correction process and produced a report, which it shared with market participants on January 20, 2010.² In the report, the ISO provided statistics on the occurrence of price corrections

¹ *Ca. Indep. Sys. Operator Corp.*, 123 FERC ¶ 61,285 (2008).

² See Technical Bulletin, 2010-01-05, Price Validation, January 20, 2010, <http://www.caiso.com/2724/2724e6e14e940.pdf>

over 2009 by type of price correction. The ISO reported that price corrections had decreased over time and that the predominance of remaining price corrections was for the HASP and RTM markets. In addition, the ISO reported a number of price changes that occurred after the price correction time horizon had elapsed, the bulk of which was due to processing or publication errors.

Following issuance of the report, the ISO initiated a stakeholder process to consider modifications to its post-price correction time horizon price correction practices. The proposed tariff changes in the instant filing are as the result of that stakeholder process.

II. DESCRIPTION OF THE FILING AND TARIFF CHANGES

The ISO undertook the post-five day price correction process stakeholder initiative primarily to address market participants' concerns about price corrections and their desire for greater price certainty. Based on stakeholder feedback the ISO recognized that price corrections after the five-day price validation window hamper participants' shadow settlement efforts and complicate the settlement of their bilateral arrangements that often utilize ISO market prices. In light of these issues, the ISO worked with stakeholders to revise the price correction process time line in a manner that better addresses these concerns. In this filing, the ISO proposes a tariff modification that eliminates any uncertainty regarding price corrections after the current five day price correction time horizon has elapsed. As discussed further below, the ISO would conduct a price correction after the price correction time horizon has elapsed only if directed to do so by the Commission. In addition, the proposed tariff amendment permits the ISO to rectify, processing or publication issues that result in the inconsistent publication of prices beyond the, after expiration of the price correction time horizon. However, the ISO must undertake such remedial action within the timeline specified in the BPMs, which the ISO proposes to set at twenty business days.

A. Price Corrections Time Horizon Amendment

The price correction time horizon is the period of time during which the ISO conducts its price validation process. The purpose of this time horizon is to notify market participants of the time during which posted prices may be subject to change because the ISO is still conducting its price validation and correction process. The price correction time horizon is currently specified in Section 8.1.6.2 of the ISO BPM for Market Operations as five calendar days. After this five-day window, the ISO does not continue to validate and correct prices and does not change posted prices as a result of its price validation process procedures.

The current ISO tariff provides in Section 35.2, that the price correction process for each trading day ends no later than 1700 hours of the eighth calendar day from the relevant trading day, unless the ISO establishes an earlier end-time in the applicable BPM, which currently is set to five calendar days. Section 35.3 then specifies that all prices are considered final for purposes of Section 35 once the price correction process for the applicable trading day has ended, except that the ISO may adjust, recalculate, or otherwise correct such prices after the conclusion of the price correction process to the extent authorized by the provisions of the ISO tariff other than in Section 35. The ISO proposes to modify this section to provide that prices are considered final after the end of the fifth calendar day from the relevant trading day unless otherwise ordered by the Commission.

This proposed change directly addresses stakeholder concerns that the tariff lacks sufficient detail regarding when prices can change after expiration of the price correction time horizon, as it eliminates the possibility of a price change beyond the specified times except if so ordered by the Commission. Early in the stakeholder process, the ISO considered alternatives for additional tariff language to govern price corrections outside the price correction time horizon, including adopting threshold criteria to guide such price corrections. The ISO did not pursue alternatives because the ISO and stakeholders concluded that given the many different prices the ISO produces and the varying nature of market issues that could arise, there is no one-size-fits all criteria that can be applied in all cases.

Through the stakeholder process, stakeholders also ultimately expressed a strong preference for price certainty after a certain time period has elapsed. Given these parameters the ISO proposed a different approach in which the tariff would more strictly limit the price correction time horizon to the five-day period, and the ISO would not conduct price corrections beyond that time period unless required by Commission order. Stakeholders strongly supported this approach, which eliminated the need to develop generic criteria under which the ISO would correct prices after expiration of the five day price correction time horizon. Stakeholders indicated that prices that change after the five-day price correction window hamper stakeholders' efforts to shadow ISO settlement calculations, and negatively impact the settlement of bilateral agreements that make use of the ISO market prices. Stakeholders also expressed a strong preference for price certainty as opposed to the risk of prices changes for an indefinite period of time as the ISO strives to improve the prices resulting from its markets clearing processes. However, stakeholders also expressed an interest in transparency to market issues that may produce market outcomes and prices that are not consistent with tariff requirements even if the ISO identifies such issues beyond the price correction time horizon.

To address this request for transparency, the ISO committed to continue to follow its process to address market issues and provide market participants with transparency into market issues and how such issues may impact market outcomes. In addition, the ISO committed to memorialize its commitment to follow its market issues process in the BPM for Market Operations. In essence, if the ISO identifies a probable market issue that may have a material financial impact on the ISO market participants, the ISO will communicate the occurrence of this event to market participants and, if appropriate, will issue a technical bulletin to explain the issue and the financial impact. To the extent feasible, the ISO will identify the affected pricing intervals in the technical bulletin in the event that the market issue impacts prices for which the five day price correction time horizon has elapsed. The ISO will also inform market participants of any intent to seek from the Commission authorization to make with the Commission a price correction after the five-day period. The ISO will include this process in its BPM. Consistent with its existing BPM process, stakeholders will be able to comment on the proposed process before the process is finalized and memorialized in the BPM. The ISO's intent is to adopt a process that allows the ISO to deal with market issues in a reasonable and transparent manner, while balancing confidentiality and market behavior considerations.

The ISO believes that the adoption of a "hard-wired" price correction time horizon in the tariff and its commitment to continue to conduct an open and transparent process in evaluating market issues addresses stakeholders' preference for price stability while continuing to provide sufficient information for stakeholders to evaluate the performance of the ISO's market systems. The continued transparency provided by the market issues process discussed above will provide market participant with the necessary information regarding the question of whether it is justifiable to pursue Commission approval of price changes beyond the five day period.

B. Processing and Publication Issues

In reviewing the ISO's price correction experience over the past year, the ISO identified that in certain instances changes to published prices after the five day time horizon were as a result of the need to correct processing or publication issues. More specifically, there are instances in which changes to published prices are necessary to correct the publication of prices that were actually corrected within the price correction time horizon, but the ISO either failed (1) to process and publish the corrected prices through OASIS or CMRI, or (2) push the corrected prices through the settlements related systems through which the ISO matches prices and schedules or dispatches for settlements purposes. Leaving these processing or publication prices uncorrected poses a problem because it results in discrepancies between posted prices and prices utilized in

settlements for market participants. In the past, the ISO has had to repeat the processing or publication that previously failed to correct these types of issues.

These processing issues have been largely resolved. Nonetheless, the ISO recognizes that, given the complex nature of its systems, it is possible that system and processing errors may occur in the future. Thus, it is important for the ISO to have sufficient flexibility so that, if such processing errors occur, the ISO can make any necessary changes in posted prices. The ISO developed its proposal with its stakeholders, and it balances the need to ensure published prices are consistent with settlements without exposing the market to undue price uncertainty.

For the reasons discussed above, the reposting of prices due to processing issues is not considered a price correction. In the event the ISO discovers a need to repost prices, the ISO will prepare an addendum to the weekly price correction report. This addendum will explain the processing issue. The ISO is developing more detailed OASIS message logs that are scheduled for implementation in the third quarter of 2010. Until that time, the ISO will enhance the weekly price correction report to include detail such as the intervals impacted by a processing issue.

The ISO recognizes the importance of price certainty and appreciates that processing issues that result in the need to alter posted prices are just as problematic from the perspective of market participants as actual price corrections that occur outside the price correction time horizon. Accordingly, the ISO is proposing that the ISO will correct such processing or publication issues within twenty (20) business days after the affected trading date. After that time, the ISO will only correct processing or publication issues if the Commission approves such changes. Otherwise, the published prices will remain as they are. After 20 business days, if there is still a discrepancy between the published prices and the prices used for settlements, the ISO will adjust the settlement prices to reflect the prices posted on OASIS for the applicable intervals.

The ISO proposes tariff language in Section 35.3 that limits the timeframe for processing or publication changes as specified in the BPM. The ISO has developed specific projects to eliminate these types of processing or publication issues, and is working toward being able to identify these issues within the price correction time horizon so that prices can be conformed within that five-day window. This effort is underway and the ISO is already experiencing minimal issues of this nature. In the BPM, the ISO is proposing 20 business days as the timeframe for any publication or processing changes. However, the ISO's intent ultimately is to reduce that timeframe once it has the appropriate tools in place. As the ISO becomes able to resolve price processing and publication issues more quickly, the ISO will shorten the time frame in its BPM and will not require a

tariff change to implement this change. The ISO anticipates that it will be able to reduce the current 20 day period to a shorter time period by the end of 2010.

C. Miscellaneous Changes Related to Price Correction Provisions

In reviewing the proposed tariff amendment with stakeholders, the ISO also identified certain tariff provisions related to price caps that are no longer applicable and that should be removed from its tariff to eliminate any confusion regarding the price corrections requirements. Specifically, the ISO proposes to remove references to the price screens instituted with the adoption of price caps as specified in Section 35.1. These price screens are no longer in effect given that the price caps identified in Section 27.1.3 expired twelve months after the start of the ISO's new market design April 1, 2009. During the tariff stakeholder process, the ISO agreed to remove the price screen related language during the tariff stakeholder process and further proposed the removal of Section 27.1.3, which by its own terms is no longer in effect.

III. STAKEHOLDER PROCESS

As discussed above, the ISO initiated the stakeholder process in an effort to evaluate and consider improvements in its current price corrections time horizon after some experience with its new market design. The ISO considered different approaches to establish a tariff rule that provides more price certainty as requested by participants and developed the instant proposal after careful consideration of market participant input. Stakeholder comments are summarized in the Memorandum provided in Attachment C of the instant filing. Several common issues were raised in stakeholder comments.

With only one exception, comments submitted by stakeholders were very supportive of the proposal to limit price corrections to within five days of the trade date. One commentator expressed concern that the five-day cut off is not consistent with the settlement dispute process and requested consideration that the ISO continue to strive to render prices consistent with the ISO tariff even beyond the five day time period. The ISO noted that corrections that arise out the dispute process typically lead to a change to the settlement values for a specific resource due to an erroneous calculation using expected energy and not to erroneous underlying binding market price. Because these types of adjustments do not result from incorrect market prices, they are not implicated by the policy described here. In the event that the dispute process does bring to light that binding market prices were calculated in a manner inconsistent with the tariff, the process described above and the price changes timeline would apply, through which the ISO does have the ability to seek Commission-approval of a price change outside the five business days if necessary.

Overwhelmingly, comments submitted by stakeholders highlighted the need for prices to remain unchanged. They stressed that price changes – whether due to price corrections or to processing issues with posting correct prices – are disruptive to the settlement of bilateral agreements and therefore, the ISO’s proposal to correcting prices within the five-day window should apply in both circumstances. Stakeholders, however, also expressed significant concern that the ISO may limit transparency into market issues, thereby eliminating visibility into market outcomes that are not consistent with the ISO tariff requirements. The ISO is strongly committed to providing adequate and reasonable visibility into issues that have a material impact on market outcomes. The ISO needs to reserve the right not to disclose all minor software and market issues because many of the aberrations it may experience over time either do not impact market outcomes, or if they do, only minimally. Therefore, it is impractical to publish each and every instance in which there is a remote possibility that a market issue might impact market outcomes. It is more reasonable that the ISO manage its market issues carefully and with sufficient latitude so as to not burden the ISO and market participants with stifling requirements to formally pursue issues that are unlikely to have a material impact on the market. Therefore, the ISO’s proposed BPM provisions for addressing market issues must strike the proper balance of providing the market with sufficient visibility into issues that have a market impact and sorting through those that do not. The ISO commits to provide visibility to all probable material market issues, to the extent practicable and as permissible due to confidentiality and to the extent that providing information on a market issue does not instigate adverse market behavior. The ISO commits to continue to analyze such issues and share its analyses through the issuance of a Technical Bulletin. This process will take place regardless of whether the ISO then pursues Commission-authority to make a price correction outside the five day window.

The ISO also provided stakeholders an opportunity to comment on its proposed tariff changes. Because the proposed tariff language changes necessary to implement the proposed policy changes were not substantial, the ISO posted the tariff language and provided an opportunity for one set of written comments. Through these comments, the ISO agreed to make additional changes to its tariff language as discussed in Part II, above. In addition, the ISO agreed to include a specific time line of five days in its tariff, which it had committed to do and has already implemented in the BPM during the policy development process. The ISO also modified its BPM to reflect the commitment to stakeholders that the feasibility and advisability of moving to a three-day price correction time horizon be reassessed on an annually. One stakeholder subsequently requested during that the price correction time horizon be strictly limited to five days in the tariff without the opportunity to go down to fewer days through a change in the BPM language. The ISO refused to make this change during the tariff stakeholder process because it had committed to stakeholders to

work over time towards narrowing the time line. The removal of the reference to the BPM for a shorter time line could be perceived by stakeholders as a change in the ISO's prior commitment to narrow the time line over time, which would not be the case. Therefore, the ISO proposes to preserve the flexibility to shorten the time line in the BPM once the ISO and stakeholders have improved their systems sufficiently to reliably conduct price corrections within a shorter time frame.

IV. EFFECTIVE DATE

The ISO respectfully requests that the tariff amendments, contained in the instant filing be made effective as of September 30, 2010. Accordingly, the proposed tariff revisions will apply to all Day-Ahead Market, Hour-Ahead Scheduling Process, and Real-time Market prices posted for Trading Day September 30, 2010. The ISO respectfully requests an order from the Commission by September 27, 2010, so that it may adequately prepare for these tariff changes by September 30, 2010.

V. COMMUNICATIONS

Communications regarding this filing should be addressed to the following individuals. The individuals identified with an asterisk are the persons whose names should be placed on the official service list established by the Secretary with respect to this submittal:

Anthony Ivancovich*
Assistant General Counsel - Regulatory
Anna A. McKenna*
Senior Counsel - Regulatory

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VI. SERVICE

The ISO has served copies of this transmittal letter, and all attachments, on the California Public Utilities Commission and the California Energy Commission, and all parties with effective Scheduling Coordinator Service

Agreements under the ISO Tariff. In addition, the ISO is posting this transmittal letter and all attachments on the ISO website.

VII. ATTACHMENTS

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

- | | |
|---------------------|-------------------------------------------------------------------------|
| Attachment A | Revised ISO Tariff Sheets – Clean |
| Attachment B | Revised ISO Tariff Sheets – Blackline |
| Attachment C | Board of Governors Memorandum on Post-Five Day Price Correction Process |

VIII. CONCLUSION

For the foregoing reasons, the ISO respectfully requests that the Commission approve this tariff revision as filed. Please contact the undersigned if you have any questions concerning this matter.

Respectfully submitted,

/s/Anna A. McKenna

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Attorneys for the California Independent System Operator Corporation

Attachment A – Clean Sheets
Post 5 Day Price Correction Tariff Amendment
California Independent System Operator Corporation
Fifth Replacement FERC Electric Tariff

6.5 CAISO Communications

The CAISO will provide a secure communication system to publish confidential information and communicate with Scheduling Coordinators, and OASIS to publish public information. All prices released by the CAISO either as published on its Open Access Same-Time Information System (OASIS) or provision of prices directly to Market Participants are subject to price corrections and changes pursuant to Section 35.

* * *

35.1 Market Validation

The CAISO shall monitor the Market Clearing software solutions for the Day-Ahead Market, the RUC process, the Hour-Ahead Scheduling Process, and the Real-Time Market for all market intervals to determine whether prices are calculated accurately, consistent with the provisions of the CAISO Tariff. To the extent reasonably practicable, the CAISO shall correct erroneous prices identified through such monitoring and re-run the relevant CAISO Markets prior to publication of prices on its Open Access Same-Time Information System (OASIS) or provision of prices directly to Market Participants, if applicable.

35.2 Timing Of The Price Correction Process

All prices for each Trading Day shall become subject to the CAISO's price correction process once the CAISO publishes them on its OASIS or provides them directly to Market Participants, if applicable. For all prices, the price correction process for each Trading Day shall end no later than the end of the fifth calendar day following that Trading Day. The CAISO may establish an earlier end-time for the price correction process in the applicable Business Practice Manual and may complete the price correction process for any Trading Day earlier than the end-time established in this Section 35 or in the Business Practice Manual. The CAISO shall provide notification on the CAISO Website when it has completed the price correction process for each Trading Day. If the CAISO does not provide such notification, the price correction process will be deemed complete at the end of the fifth calendar day following that Trading Day, unless an earlier time is established by the applicable Business Practice Manual.

35.3 Finality Of Prices Subject To The Price Correction Process

All prices shall be considered provisional until the CAISO has completed the price correction process regarding them. All prices for each Trading Day shall be considered final for purposes of this Section 35 once the price correction process for that Trading Day has ended and the CAISO will not make price corrections or change published prices after the price correction process time period has expired except as further discussed in this Section 35.3. The CAISO will not make price corrections after the price correction process time period specified in Section 35.2 has expired, except as otherwise directed by the Federal Energy Regulatory Commission. In addition, for intervals in which the CAISO experiences a problem with the processing or publication of prices, the CAISO will make changes to the affected prices to remedy the processing or publication problems within the time period following the applicable Trading Day as specified in the Business Practice Manual, except as otherwise directed by the Federal Energy Regulatory Commission.

35.4 Scope Of Price Corrections

The CAISO may correct all financially binding prices, including all prices released pursuant to Section 6, whenever the CAISO identifies an invalid market solution or invalid prices in an otherwise valid market solution. The circumstances in which the CAISO may determine that an invalid market solution or invalid prices exist include the following: the occurrence of data input failure; the occurrence of hardware or software failure; or a result that is inconsistent with the CAISO Tariff. The reposting of prices to remedy processing or publication issue as discussed in Section 35.3 does not constitute a price correction.

Attachment B – Blacklines
Post 5 Day Price Correction Tariff Amendment
California Independent System Operator Corporation
Fifth Replacement FERC Electric Tariff

* * *

6.5 CAISO Communications

The CAISO will provide a secure communication system to publish confidential information and communicate with Scheduling Coordinators, and OASIS to publish public information. All prices released by the CAISO either as published on its Open Access Same-Time Information System (OASIS) or provision of prices directly to Market Participants are subject to price corrections and changes pursuant to Section 35.

* * *

27.1.3 Maximum and Minimum CAISO Markets Prices

~~For Settlements purposes, all LMPs, ASMPs and RUC Availability Prices for the IFM, RUC, HASP and Real-Time Market, as applicable, shall not exceed \$2500 per MWh and shall not be less than negative \$2500 per MWh. All prices produced by the CAISO Markets will be posted in accordance with the posting of market results as further provided in Section 6.5, and subject to the price validation and correction procedures provided in Section 35; provided that the only prices that will be initially withheld from publication are those prices that exceed the above specified maximum and minimum CAISO Market prices. Prices exceeding \$2500 or less than negative \$2500 will be modified for Settlements purposes pursuant to price correction process in Section 35 and the CAISO will post the results. In addition to the analysis provided in the CAISO quarterly market performance reports on the maximum and minimum prices and price trends, the CAISO shall include in the weekly price correction report specified in Section 35.6 all prices at a non-aggregated level that exceed the minimum and maximum settlement prices specified in this Section 27.1.3. This Section 27.1.3 will no longer be in effect twelve months after the effective date of this section 27.1.3.~~

* * *

35.1 Market Validation

The CAISO shall monitor the Market Clearing software solutions for the Day-Ahead Market, the RUC process, the Hour-Ahead Scheduling Process, and the Real-Time Market for all market intervals to determine whether prices are calculated accurately, consistent with the provisions of the CAISO Tariff. To the extent reasonably practicable, the CAISO shall correct erroneous prices identified through such

monitoring, and may also withhold temporarily the posting of prices as otherwise required by Section 6 if such prices exceed the maximum and minimum CAISO Market prices provided in Section 27.1.3, and re-run the relevant CAISO Markets prior to publication of prices on its Open Access Same-Time Information System (OASIS) or provision of prices directly to Market Participants, if applicable.

35.2 Timing Of The Price Correction Process

ISO will publish any price withheld for publication pursuant to Section 35.1 as soon as practicable, but no later than 48 hours after the price is initially withheld. All prices for each Trading Day, including prices initially withheld pursuant to Section 35.1, shall become subject to the CAISO's price correction process once the CAISO publishes them on its OASIS or provides them directly to Market Participants, if applicable. For all prices, the price correction process for each Trading Day shall end no later than the end1700 hours of the fiftheighth calendar day following that Trading Day. The CAISO may establish an earlier end-time for the price correction process in the applicable Business Practice Manual and may complete the price correction process for any Trading Day earlier than the end-time established in this Section 35 or in the Business Practice Manual. The CAISO shall provide notification on the CAISO Website when it has completed the price correction process for each Trading Day. If the CAISO does not provide such notification, the price correction process will be deemed complete at the end1700 hours of the fiftheighth calendar day following that Trading Day, unless an earlier time is established by the applicable Business Practice Manual.

35.3 Finality Of Prices Subject To The Price Correction Process

All prices shall be considered provisional until the CAISO has completed the price correction process regarding them. All prices for each Trading Day shall be considered final for purposes of this Section 35 once the price correction process for that Trading Day has ended and the CAISO will not make price corrections or change published prices after the price correction process time period has expired except as further discussed in this Section 35.3. The CAISO will not make price corrections after the price correction process time period specified in Section 35.2 has expired, except as otherwise directed by the Federal Energy Regulatory Commission. In addition, for intervals in which the CAISO experiences a problem with the processing or publication of prices, the CAISO will make changes to the affected prices to remedy the processing or publication problems within the time period following the applicable Trading

~~Day as specified in the Business Practice Manual, except as otherwise directed by the Federal Energy Regulatory Commission except that the CAISO may adjust, recalculate, or otherwise correct such prices after the conclusion of the price correction process to the extent authorized by the provisions of the CAISO Tariff other than this Section 35.~~

35.4 Scope Of Price Corrections

The CAISO may correct all financially binding prices, including all prices released pursuant to Section 6, whenever the CAISO identifies an invalid market solution or invalid prices in an otherwise valid market solution. The circumstances in which the CAISO may determine that an invalid market solution or invalid prices exist include the following: the occurrence of data input failure; the occurrence of hardware or software failure; or a result that is inconsistent with the CAISO Tariff. The reposting of prices to remedy processing or publication issue as discussed in Section 35.3 does not constitute a price correction.

* * *



Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President, Market & Infrastructure Development

Date: May 10, 2010

Re: **Decision on Post-Five Day Price Correction Process**

This memorandum requires Board action.

EXECUTIVE SUMMARY

Management undertook the post-five day price correction process initiative to address market participants' concerns about price corrections and their desire for greater price certainty. Price corrections after the five-day price validation window hamper participants' shadow settlement efforts and complicate their bilateral arrangements that often make use of ISO market prices.

In light of these issues, we have worked with stakeholders to revise the price correction process. In dealing with pricing errors and potential price corrections, Management proposes the principles and processes below:

- Price corrections unrelated to data processing issues with posting prices will be made within the five-day price validation time horizon. In the event that the ISO experiences a problem with the public posting of prices, however, Management proposes that the ISO correct such publication issues and republish prices up to twenty days after the applicable trade date; and
- If the ISO identifies price errors beyond the five-day price validation time horizon and has determined that there is material market impact, as is its practice today the ISO will issue a technical bulletin to explain the impact. No price corrections will be made beyond the five-day period, unless ordered by FERC. In the event that the ISO determines it is appropriate to seek permission to correct prices beyond the five-day period, the ISO's practice will be to request permission for a limited look back of no more than sixty days for any requested price corrections and will await FERC direction on whether to perform a price correction.



Management has determined that this approach to limiting price changes best reflects our requirement to apply the filed rates within the tariff while balancing the needs for price accuracy and price certainty.

Moved, that the ISO Board of Governors approves the proposed tariff changes regarding post-five day price corrections, as detailed in the memorandum dated May 10, 2010; and

Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.

DISCUSSION AND ANALYSIS

The price correction time horizon is the period of time during which the ISO starts and ends its price validation process. The setting of this time horizon is intended to notify market participants of the time during which posted prices may be subject to change because the ISO is still conducting its price validation and correction process. After this five-day window, the ISO does not continue to validate and correct prices and does not change posted prices as a result of its price validation process procedures.

The ISO tariff section 35.3 and section 8 of the business practice manuals for market operations currently provide for the ISO to make price corrections beyond the five-day price correction time horizon under limited circumstances. In essence, this tariff provision enables the adjustment of prices so that they are consistent with the rates, terms and conditions of service specified in the tariff. Since the start of the new market design on April 1, 2009, there has been a handful of instances in which prices were corrected outside of the price correction time horizon.¹

Management undertook this initiative to address market participants' concerns regarding uncertainty around post-price correction time horizon changes. In developing the policy around post-five day price correction processes, Management has strived to balance price certainty and price accuracy. That balance has been weighted by resounding feedback from stakeholders that price certainty is critically important. Prices that change after the five-day price correction window hamper their efforts to shadow ISO settlement calculations, and negatively impact the settlement of bilateral agreements that make use of the ISO market prices.

¹ Link to the January 20, 2010 Technical Bulletin: <http://www.caiso.com/2724/2724e6e14e940.pdf>



POSITIONS OF THE PARTIES

In the written comments provided on the policy outcome of the post-five day price correction initiative, there were several common issues brought forward by stakeholders. Following is a summary of the comments for those specific issues:

- **Five-day cut-off for price corrections**

With only one exception, comments submitted by stakeholders were very supportive of the proposal to limit price corrections to within five days of the trade date. Southern California Edison is not in favor of the proposal laid out in the final policy proposal and expressed concern that the five-day cut off is not consistent with the settlement dispute process.

With regard to SCE's concern, Management notes that the dispute process most often leads to a change to the settlement values for a specific resource due to an erroneous calculation using expected energy. Since these adjustments do not result from incorrect market prices, they are not implicated by the policy described here. In the event that the dispute process does bring to light that binding market prices were calculated in a manner inconsistent with the tariff, the proposed process would apply.

- **Price certainty and processing issues**

Comments submitted by stakeholders highlighted the need for prices to be unchanging, and reasserted that price changes – whether due to price corrections or to processing issues with posting correct prices – is disruptive to the settlement of bilateral agreements and therefore, the ISO proposal of correcting prices within the five-day window should apply in both circumstances.

Management appreciates this concern and has committed to undertaking analysis of the monitoring and process improvements needed to minimize changes to posted prices that result from processing issues. However, with the current data transfer monitoring limitations it is not possible to identify and correct all of the potential data processing issues that could lead to incorrect posted prices within the five-day price validation window. Management has committed to developing and implementing the automated monitoring and data validation processes needed to minimize data processing issues leading to incorrect posted prices; these measures, however, are not yet in place.



- **Determination of good cause to undertake a price correction analysis**

Some stakeholders expressed concern about Management's reservation of discretion over when to undertake analysis of a potential pricing error. These stakeholders expressed that market participants ought to be made aware of all instances of potential price corrections, and that they should be involved in the decision on whether or not to seek permission from FERC to make the price correction. Management clarifies, that as is the ISO's practice today, if there is a market issue that has material market impact, the ISO will analyze the issue and share its analysis through a Technical Bulletin. This process will take place regardless of whether the ISO then pursues FERC-authority to make a price correction outside the five day window. This process will be further described in the ISO's business practice manuals.

Management's proposal with respect to price corrections comes out of the feedback that market participants highly value price certainty. This policy of price certainty implies, however, that the market prices are final. In addition to being onerous to the organization, a requirement that ISO Management undertake ongoing and continuous analysis of prices outside the five-day window to determine if they should be changed would be in opposition to the principle of price certainty.

MANAGEMENT RECOMMENDATION

Management recommends the establishment of a look-back period limited to five business days. In other words, we will not change prices that are older than five business days, *i.e.* which are outside the price correction time horizon, without explicit permission from FERC. The one exception to this provision is cases where incorrect prices are due to data processing issues with posting prices.

Management recognizes the importance of price certainty and appreciates that processing issues that result in the need to alter posted prices are just as problematic from the perspective of market participants as actual price corrections outside the price correction time horizon. Therefore, in the event that the ISO experiences a problem with the public posting of prices, the ISO will correct such publication issues and republish prices up to twenty days after the applicable trade date. After twenty days from the trade date, there will be no adjustments to published prices unless directed by FERC. Furthermore, Management commits to developing a plan and a timeline for the implementation of internal monitoring and process enhancements with the ultimate goal of price certainty as close to the trade date as possible.

In addition, consistent with its current practice, in the event that the ISO identifies a material market issue, outside of the five-day price correction time horizon, the ISO will follow the following process:



- Perform an analysis that estimates the impact of the market issue to the extent practicable and feasible
- Prepare and post a technical bulletin that provides the market with the results of this analysis and, if appropriate, support for any recommendation to seek permission to make the price correction from FERC. The technical bulletin and recommendation will be discussed with market participants.

Management has determined that this approach to limiting price changes best reflects our requirement to apply the filed rates within the tariff while balancing the needs for price accuracy and price certainty.

Stakeholder Process: Post-Five Day Price Corrections

Summary of Submitted Comments

Stakeholders submitted three rounds of written comments to the ISO on the following dates:

- Round One – February 19, 2010
- Round Two – March 26, 2010
- Round Three – April 16, 2010

This matrix summarizes comments provided on the Straw Proposal (posted March 4, 2010), the Addendum to the Straw Proposal (posted March 19, 2010), and the Draft Final Proposal (posted April 2, 2010).

Stakeholder comments are posted at: <http://www.caiso.com/2733/2733dab218d20.html>

Other stakeholder efforts include:

- Stakeholder Conference Calls:
 - February 12, 2010
 - March 11, 2010
 - April 12, 2010

	Management Proposal					
	Maintain five-day price validation time horizon	Binding market prices will not be changed outside the five-day price validation time horizon	FERC waiver required to change prices after five days	Changes to resource-specific prices as part of the settlement disputes process	Transparency	Processing issues
DC Energy	Feels that the five-day window should move to a three-day window	Supports	–	–	–	Suggests that all changes to prices be subject to the 5-day cut-off
Dynegy	Supports, with the goal of moving to a shorter window in the future	–	–	–	States that all instances in which prices are calculated in a manner inconsistent with other tariff provisions be communicated to market participants	Appreciates that this issue being tackled
JP Morgan	–	Supports	–	–	Recommends that the ISO provide transparency into process of deciding whether or not to make a price correction after 5 days	–
Maquarie	–	Supports	Supports	Supports	–	Would like a commitment on the dates associated with this effort
Mirant	–	Supports	Supports	–	–	–
PG&E	Supports	Supports; Requests the establishment of a “database of record”	Supports	Supports a continuation of the existing dispute process	Requests greater transparency regarding all post-five day price issues	Encourages aggressive timeline and initial goal for tackling this issue

Management Proposal						
	Maintain five-day price validation time horizon	Binding market prices will not be changed outside the five-day price validation time horizon	FERC waiver required to change prices after five days	Changes to resource-specific prices as part of the settlement disputes process	Transparency	Processing issues
Powerex	–	Supports	Supports	–	Urges Management to provide notice of all potential price corrections	Appreciates the commitment to tackle this issue and stresses the need for an aggressive initial goal and timeline
SCE	Supports	Does not support since MRTU is in its infancy	Does not support since MRTU is in its infancy	Would like confirmation that disputes will not lead to market-wide changes in prices	Requests greater consistency or explanation of reasons for price corrections/changes	–
SMUD	–	Prefers a timeline for price finality that is closely tied to the dispute timeline	–	–	Requests clarification of the discretion of “good cause” to pursue a potential price correction	Wants processing issues minimized, but does not want a FERC waiver required to make adjustments necessitated by processing issues
WPTF	Supports, but requests a firm date on which this will be re-evaluated	Supports	Supports	–	Strongly supports a mechanism for communicating all potential price correction related items to market participants	–

Management Proposal						
Management Response	Maintain five-day price validation time horizon	Binding market prices will not be changed outside the five-day price validation time horizon	FERC waiver required to change prices after five days	Changes to resource-specific prices as part of the settlement disputes process	Transparency	Processing issues
	Management has amended the relevant business practice manual to indicate that the price correction time horizon will be re-evaluated annually	Management is pleased to offer this proposal which was developed in response to resounding feedback from participants that price certainty is critical. Through the initiative to address processing issues, we plan to identify a "database of record"	The need to seek a FERC waiver to change prices after five days honors price certainty by setting a high bar for prices changes. This proposal is consistent with practices at other ISO/RTOs	Management clarifies that changes to settlement statements that come out of valid disputes will only reflect adjustments to settlement calculations, and not to binding market prices	Management commits to continuing its current practice of providing descriptions and analysis (as feasible) of any post-five day price correction considered. The disclosure of pricing issues that require confidential proceedings with FERC will be delayed	Management has committed to an evaluation of the needed monitoring and process enhancements necessary to limit processing issues. The initial freeze on changes due to processing issues is 20 business days after the trade date