



California ISO
Your Link to Power

Draft Final Proposal

Post-Five Day Price Corrections

April 2, 2010

Post-Five Day Price Corrections

Prepared for Discussion on a Stakeholder Call – April 13, 2010

1 Introduction

The price correction time horizon is described in the Business Practice Manual (BPM) for Market Operations as the period of time during which the ISO starts and ends its price validation process. The ISO started its new market design with the time horizon set to 8 days after the Trading Day the price is released and has since changed it to 5 days as reflected in the BPM for Market Operations. 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 time, 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. However, the ISO Tariff section 35.3 and section 8 of the BPM for Market Operations currently provide for the ISO to make price corrections beyond the five-day price correction time horizon under limited circumstances. Specifically, section 35.3 provides that prices will be considered final after the price correction time horizon has expired, “for purposes of [this] Section 35 once the price correction process for that 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 this Section 35.” In essence, this tariff provision enables the ISO to adjust prices if they have been found to have been calculated inconsistently with its tariff provisions so that they are consistent with the rates, terms and conditions of service specified in its Tariff.

Since the start of the new market design on April 1, 2009, there have been a small number of instances in which prices were corrected outside of the price correction time horizon. The ISO has undertaken this initiative to address market participants’ concerns regarding uncertainty around post-price correction time horizon changes and their need for price finality.

2 Process and Timetable

The purpose of the present *Draft Final Proposal* is to provide Stakeholders with the ISO’s recommended policy given the written comments submitted by Stakeholders, and our analysis. The proposed timeline for the Stakeholder initiative culminates in taking a policy recommendation to the CAISO Board of Governors in May, 2010. The table below summarizes the key steps in the stakeholder process on refinements to processes relative to post-five day price corrections.

February 5, 2010	<i>Issue Paper</i> Posted
February 12	Conference call
February 19	Comments due *

March 4	<i>Straw Proposal</i> Posted
March 11	Conference call
March 19	<i>Straw Proposal Addendum</i> Posted
March 26	Comments due *
April 2	<i>Draft Final Proposal</i> Posted
April 13	Conference call
April 16	Comments due *
May 17	Presentation to ISO Board of Governors

* Please e-mail comments to post5pc@caiso.com

3 Key Criteria for Evaluating Potential Solutions

This section provides some key evaluation criteria the ISO believes are important. Stakeholders are invited to identify other criteria that should be considered in assessing policy options for the determination of whether or not a price correction will be made after the price correction time horizon.

- The policy developed to assess the appropriateness of making a post- price correction time horizon price change should prescribe price corrections that are consistent with the rates, terms and conditions of service specified in the ISO Tariff;
- Policy with respect to evaluating the appropriateness of a post-price correction time horizon should result in consistent decisions to make those price corrections; and
- The policy should balance the need for price certainty outside the price correction time horizon against the importance of continued verification that prices are correct and consistent with the ISO Tariff, also taking into consideration the feasibility of reaching corrected prices.

4 Description of the Issues

Since the start of the new market design on April 1, 2009, there have been isolated instances in which prices were corrected outside of the price correction time horizon. The ISO has recently published a Technical Bulletin describing the price changes it has made to date outside the price correction time horizon.¹

¹ The Technical Bulletin describing current practices is available at the following link:
<http://www.caiso.com/2724/2724e6e14e940.pdf>

With respect to the ISO's practices within the price correction time horizon, based on its review of its activity over the past ten months as reflected in the Technical Bulletin, the ISO does not see the need to propose any changes to that process at this time. The ISO's attempts to improve and refine its processes before running the markets and in its price validation period has resulted in the significant reduction of the instances in which a price correction has been necessary even within the price correction time horizon as illustrated in the Technical Bulletin posted on January 20, 2010. Therefore, this initiative is focused on better defining the instances in which the ISO would actually conduct a price correction outside the price correction time horizon.

5 Consideration for Post- Price Correction Time Horizon

In considering whether the ISO should make a price correction after the expiration of the price correction time period, the market must balance the need for price certainty against the need to apply the prices on file with the Commission. In this section, we discuss the various considerations to be made in more clearly defining the guidelines to be used for price corrections beyond the price correction time horizon.

Settlement Disputes

Settlement statements are published at T+7B, T+38B, T+76B, T+18M, T+35M and T+36M. Disputes may be submitted for a price related issue on the T+7B or the T+38B statement while only incremental changes, or differences from the last statement, may be disputed on the other published statements. Disputes submitted for items identified on any of these statements that are valid are generally resolved on the next available settlement statement. However, in some cases, additional time is necessary for the ISO to properly research and resolve some complex issues.²

The ISO recognizes that the price dispute process is a necessary and important one and that valid corrections to settlement statements will occur through this process because market participants may find that the ISO made an incorrect settlement calculation. It is possible that, through this process, the ISO will discover that the calculation error impacted the settlement of other market participants. Under the new sunset provision in the tariff, such dispute-driven changes are only possible within three years of the market clearing with the vast majority being identified and fixed by the T+76B statement. When accepting disputes, the ISO has in the past applied the same treatment to other similarly situated market participants.

Finality of Prices

An important factor to consider is whether there is the need to define a sunset after the expiration of the price correction time horizon, after which the ISO would no longer make any price corrections. Stakeholders have provided extensive feedback to the ISO on the importance of price certainty due to bilateral arrangements that depend on ISO market prices, and due to efforts to "shadow" the ISO's settlement calculations.

² See the Settlements and Billing BPM available at the following website:
<https://bpm.caiso.com/bpm/bpm/version/000000000000010>

Processing Issues

As discussed in the ISO Technical Bulletin, it is possible that certain posted prices may have appeared to change after the price correction time horizon due to processing issues. The ISO has worked to reduce such instances, and will continue to do so. The ISO does appreciate the need for price certainty, and recognizes the fact that processing issues and true price corrections both negatively impact Stakeholders with bilateral arrangements and shadow settlement validation efforts, as noted above. While we are committed to the reduction of processing issues, and a limitation of the timeframe in which prices can be reposted as a result of process issues, these undertakings are outside the scope of the post-five day price correction process initiative.

Prices Inconsistent with Tariff Requirements

Occurrences that are commonly thought of as pricing errors generally fit into two categories: those requiring a full re-run of the market, and those requiring only a settlement re-calculation. Examples of circumstances that would necessitate a full re-run of the market would include input issues such as modeling errors and bid transfer errors.

The second category of price corrections consists of instances in which the pricing error requires only a settlement re-calculation in order to render the pricing outcome consistent with the tariff requirements. In either of these cases, if the ISO determines that a pricing error has a material impact on the market, it will prepare an analysis, a recommendation for further action, and will share that information with market participants.

Limited look-back

In certain instances, the pricing error may have gone back an extended period of time before the error was detected. This brings to light the question of whether the ISO should make price corrections outside the price correction time horizon only within a certain look-back period. The decision about whether to adopt a look-back period must consider the interest of price certainty over the need to provide the filed rate.

Keep 5-day price correction time horizon rather than moving to a three-day process

Since the adoption of the new price correction procedures, the ISO has improved its price correction processes, and is confident that these procedures can reliably conduct the necessary price validation within the current five day price correction time horizon. The BPM for Market Operations specifies that the ISO will be moving towards a three day price correction time horizon after one year of experience with the new market design. The ISO believes that, at this time, it is more prudent to retain the five day period. As it strives to provide more price certainty outside the price correction time horizon, shortening the time horizon may unnecessarily result in more need to change prices outside that time period. The ISO therefore proposes to retain the five day time horizon.

6 Stakeholder Feedback

The *Straw Proposal* was developed in an effort to balance the concerns expressed to the ISO about price accuracy against the feedback that confidence in prices staying constant. Based on additional input, the ISO offered an *Addendum* to the *Straw Proposal* with an alternative to the proposed 60-day look-back period. Stakeholders considered this *Addendum* as well as the originally posted *Straw Proposal*, and feedback on both documents was provided to the ISO.

In the written comments provided on the *Straw Proposal* and its *Addendum*, there were several common issues brought forward by Stakeholders. Following is a summary of the comments for those specific issues:

Five-day cut-off on price corrections

With only one exception, the ten formal written comments submitted by Stakeholders were very supportive of the *Addendum's* proposal to limit price corrections to being within five days of the Trade Date. Those in favor of the proposal expressed appreciation for the ISO's responsiveness to Stakeholder feedback, and the ISO's recognition of the importance of price certainty. The Stakeholder not in favor of the proposal laid out in the *Addendum* expressed concern that the five-day cut off is not consistent with the settlement dispute process.

Price certainty and processing issues

Four of the comments submitted by Stakeholders highlighted the need for prices to be unchanging, and reasserted that repricing of prices – whether due to price corrections or to processing issues – is disruptive to the settlement of bilateral agreements.

Determination of good cause to undertake a price correction analysis

Three Stakeholders expressed concern over the ISO's reservation of discretion over what constitutes "good cause" 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 a waiver from FERC to make the price correction.

7 Revised Straw Proposal

The "pros" of making changes outside the time horizon is that market participants receive corrected settlement statements. One "con" is that market participants are therefore constantly leery of prices changing after the five-day period, and this risk is reflected in all manner of financial arrangements outside the ISO markets. Another important "con" is that having the authority to make price changes after the five-day window burdens the ISO with determining whether or not a price correction is warranted. In the absence of hard and fast criteria, which are elusive given the unique nature of every price correction situation, the determination of the need for a price correction will

necessarily be difficult and contentious. Ongoing feedback has conveyed to the ISO that the importance of price finality. Additionally, the ISO now more fully appreciates how the inherent uncertainty in the process of evaluating the extent to which a post-five day price correction may be warranted (even if only for a limited look-back period) is technically problematic and financially burdensome. For these important reasons, on March 19, 2010 the ISO offered an *Addendum* to its March 4, 2010 *Straw Proposal* for Stakeholder consideration. Stakeholder feedback was widely supportive of the *Addendum*, and as a result it is offered – with one important additional element – as the *Draft Final Proposal* for this initiative.

In summary, the elements of this *Draft Final Proposal* are as follow:

- The ISO proposes to establish a look-back period limited to 5 business days. In other words, the ISO will not change prices that are older than 5 business days, i.e. that are outside the price correction time horizon without a waiver from FERC;
- In the event that the ISO becomes aware outside the 5-day price correction time horizon that prices were calculated in a manner inconsistent with our Tariff, the ISO will determine whether there is good cause to consider correcting such prices. The determination of good cause will be based on the ISO's assessment of the impact on the market as a whole, the impact to individual market participants and sectors of the market, and on the feasibility and administrative burden of replacing the incorrect prices with corrected prices. If there is good cause to pursue a price correction, the ISO proposes to follow the process outlined in the steps below:
 - The ISO will perform an analysis of the impact of the potential price correction. As noted above, to the extent feasible and practicable, this analysis will be based numerous factors including the number of impacted intervals, the number of impacted market participants, and – as feasible – the dollar value impact to market participants, and the skewness of the impact by sector and/or participant. It is important to stress that any analysis and subsequent recommendation will be guided and informed by the degree to which the analysis is feasible (and therefore the extent to which it is accurate as opposed to an estimate), and upon the administrative burden of the analysis and price correction. As such, the ISO will explain any limitations of the analysis and also provide an assessment of the feasibility and administrative burden of making the price correction; and
 - The ISO will prepare and post a Technical Bulletin providing the market with the results of this analysis and support for any recommendation to seek a waiver to make the price correction from FERC. The Technical Bulletin and the ISO's recommendation will be discussed on the Market Issues call or in a similar forum. If the analysis or recommendation is revised after the discussion with Stakeholders, the ISO will post a revised Technical Bulletin;
- Through the dispute process, the ISO may agree that there is a need to make a resource-level price adjustment. Note that resource-level price adjustments are the majority of dispute

cases. Despite the fact that they are referred to as “price adjustments,” these are not changes to the financially binding prices that come out of the market run. Rather, the disputes are generally around how much the resource was paid – based on its individual dispatch – given the binding prices. Since this is not a change to prices, but rather only a change to the settlement statement calculations, the ISO reserves the authority to make such adjustments if the review of a dispute deems it to be necessary. Additionally, to the extent that the ISO can identify other parties that may be impacted by the same calculation issue, we will endeavor to apply the adjustment to those other parties based on impact and feasibility;

- The reposting of prices due to processing issues is not considered a price correction. In the event that the need to repost prices is discovered, the ISO will prepare an addendum to the weekly price correction report. This addendum will provide an explanation of the processing issue. More detailed OASIS message logs are being developed and are planned for implementation in Q2 or Q3 of 2010. Until that time, the weekly price correction report will be enhanced to include detail such as the intervals impacted by a processing issue. Since processing issues are not corrections to binding market prices, the development of a policy to limit or eliminate reposting prices as a result of processing issues is outside the scope of this policy initiative; and
- **Addition:** 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 Stakeholders as actual price corrections outside the price correction time horizon. The ISO is developing a plan and a timeline for the implementation of internal monitoring and process enhancements with the initial goal of having no changes to posted prices as a result of processing issues after T+20 business days, and an ultimate goal of a smaller window. Again, the timeline and precise scope for this effort are still being determined. Issues that will be analyzed as part of an implementation and communicated to Stakeholders will include (1) the overall timeline of the project, (2) the specific price data that will be monitored, and (3) the ultimate number of days after which prices can be considered final, with the goal of price certainty as close to the Trade Date as possible.

8 Next Steps

The ISO will conduct a conference call to review this *Draft Final Proposal* on Monday April 12, 2010 from 10:00 a.m. to 12:00 p.m. The ISO appreciates stakeholder comments and discussion on the issues raised within this paper as well as other issues that should be examined. If you would like to submit a final set of formal comments on this policy initiative, please send those by close of business on April 16, 2010 to post5pc@caiso.com.