

ISSUE 15: RESTRICTION ON CHANGES TO DISPATCH DATA BETWEEN 4 AND 2 HOURS AHEAD OF DISPATCH HOUR

Date Raised

Noted in May 2003 Market Pricing Issues Team Report.

Description

The original design and implementation of the IMO-administered market restricted any changes to applicable offer/bid parameters, from four hours until two hours prior to the specific dispatch hour, to no more than 10 percent of the values that were current four hours prior to that dispatch hour. It was subsequently ascertained that removing these restrictions and allowing Market Participants to change offers/bids closer to real-time would be expected to bring the one-hour ahead pre-dispatch prices and the real-time prices closer together and to result in fewer failed transactions. With such actions by market participants, the IMO would not need to intervene with non-market control actions thereby improving reliability and market efficiency.

In September 2003, the IMO Board approved the Market Rule Amendment Proposal MR-00232 in favor of allowing market participants to make unrestricted revisions to dispatch data up to 2 hours ahead of the dispatch hour.

Background

The inability of market participants to revise the offer/bid parameters closer to real-time was identified by the IMO as a factor in the discrepancy between the pre-dispatch and real-time market prices¹. To confirm that such a relaxation of the restriction could be tolerated and provide benefits on a sustained basis, the IMO initiated a trial in mid-November 2002 that allowed market participants to make unrestricted revisions to dispatch data up to 2 hours ahead of the applicable dispatch hour. Until September 2003, the market rules allowed unrestricted revisions to dispatch data only up to 4 hours ahead of the applicable dispatch hour, and imposed some restrictions to revisions of dispatch data made in the period between 4 and 2 hours ahead.

Market participants, when permitted to make only limited changes to dispatch data after 4 hours before the dispatch hour, could only react in a limited manner to any market or system changes occurring in the same timeframe. The trial was established to determine if the market, being allowed additional time to revise dispatch data with no restrictions, could and would respond to changes in market conditions that occur after 4 hours before the dispatch hour.

¹ On occasion, the offer/bid windows are “opened” to allow unrestricted changes closer to real-time in order to address real-time reliability concerns.

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The results and experience of the trial were generally positive, from both the market participants' and the IMO's perspectives. During the trial, predispatch prices from 2 to 8 hours ahead of real-time showed a greater convergence to the hour-ahead predispatch price than before the trial. In addition, the differences between the predispatch prices and the real-time HOEP were smaller than before the trial. In all cases, both the mean difference and the standard deviations were smaller during the trial than before the trial. The maximum differences were also typically smaller during the trial than before the trial. With respect to intertie transactions, the failure rate of both imports and exports was lower during the trial than before. A more detailed account of this analysis can be found in the May 28, 2003 Market Pricing Issues Team report (see *References*).

Although the quantitative results are positive, many other factors were at play before and during the trial that would have contributed to the improvement in price convergence and failure of intertie transaction. These factors include changes to the intertie transaction scheduling protocols, differences in demand levels, etc. The improvements cannot be attributed solely to the trial. Nonetheless, a qualitative assessment of the trial indicated that market participants were in favor of the increased flexibility afforded to them. The IMO also determined that there were no adverse impacts on the reliable operation of the IMO-controlled grid as a result of the trial.

In light of the overall positive results, Market Rule Amendment Proposal MR-00232, "Allow Unrestricted Revisions to Dispatch Data up to 2 Hours Ahead of Dispatch Hour", was submitted for review in May 2003, and approved by the IMO Board in September 2003. Section 3.3 of Chapter 7 of the market rules was amended to permit market participants to make unrestricted changes to their dispatch data up to 2 hours before the dispatch hour. IMO approval of any changes between 2 hours before and the actual dispatch hour was retained.

Why a Pricing Issue

The removal of the 4-2 hour restricted window helps to improve market efficiency by providing more opportunity for market participants to conduct commercial transactions and to revise their offers and bids accordingly. Market participants also have the opportunity to respond to market and system changes closer to real-time. This in turn will reduce the frequency with which the IMO would need to intervene in response to those market and system changes. Hence, the issue also contributes to maintaining the reliability of the IMO-controlled grid.

Impacts of Issue

According to the study published in the Market Pricing Issues Team report from May 28, 2003, the trial that was initiated demonstrated that removing the 4-2

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hour ahead restrictions has helped to bring the one-hour ahead predispatch prices and the real-time prices closer together. This increased convergence results from allowing market participants to change offers/bids closer to the closing of the New York Balancing Market Evaluation. This coupled with compliance penalties should result in fewer failed transactions. Fewer failed transactions should lead to less variability in the real-time supply-demand balance relative to the one-hour ahead predispatch.

In certain instances if domestic resources are able to respond inside the 4-2 hour window, then fewer higher priced import transactions would be required, thus reducing the Intertie Offer Guarantee (IOG). It is also possible that this initiative has increased competition for imports and exports, which may have the result of lowering pre-dispatch prices, and thereby reducing potential IOG payments.

Related Issues

- 001: Predispatch Price Bandwidths
- 006: Effects of Emergency Purchases on the Market
- 007: Imports Setting Price
- 009: Use of Peak Demand Load Forecast in Predispatch
- 010: Over-Forecasting of Demand in Hours 23, 24
- 012: Under-commitment of Available Generation
- 013: Impact of Out of Market Resources on the Market
- 014: Hour(s)-Ahead Price Signal Uncertainty
- 023: Elimination of Constrained-off Payments
- 024: Reducing Frequency of Failed Intertie Transactions

Options Considered

[To be developed]

Selected References

Market Pricing Issues Team Report – May 28, 2003

http://www.theimo.com/imoweb/pubs/consult/mktOps/mo_paper_PricingIssues_20030528.pdf

Market Rule Amendment Proposal – MR-00232

http://www.theimo.com/imoweb/pubs/mr/MR_00232-R00_BA.pdf