

ISSUE 08: SYSTEMIC ARBITRAGE OPPORTUNITIES BETWEEN THE DAY-AHEAD AND REAL-TIME MARKETS

Please Note:

This is a draft document that will likely undergo substantial change as a result of discussion at the September 03, 2004 Market Pricing Working Group meeting. In its current form, this document may not accurately represent the views of the Working Group with respect to this issue.

Date Raised

Raised in August 2004 by the IMO Market Pricing Working Group in recognition of questions raised early in the deliberations of the Day Ahead Market Working Group.

Description

The IMO is currently developing a Day-Ahead Market (DAM) design for Ontario. The proposed DAM would feature a number of design elements and characteristics that would not exist in the Real-Time market (RTM), including multi-part offers and bids, virtual transactions, imports being able to set price, simultaneous use of ramping and reserve for units at their maximum ramping capability, and single hour and multi-hour block day-ahead financial commitment for inter-tie transactions. Market Pricing Working Group members have expressed concern that differences between DAM and RTM designs may create inappropriate systemic price differences (and hence arbitrage¹ opportunities) between the markets and that certain participants may be unable to hedge against these.

Background

The proposed DAM would entail an IMO-administered financial market that would accept supply offers and demand bids and clear at day-ahead prices. Further, the DAM would integrate a 3-part offer/bid process to optimize commitment for both supplies available to the DAM to meet loads buying in the DAM, as well as for supplies available to the Real-Time Market to meet Real-Time Market forecast load. This would be accomplished through a multi-pass process for committing units, arranging DAM schedules, defining DAM prices, and producing indicative schedules for the Real-Time Market.

¹Arbitrage refers to the purchase and sale of similar or identical commodities in two different markets in hope of gaining a profit from price differences.

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[Suggestion re: further language for this “Background” section]

- (a) Overview of how each “in DAM but not in RTM” design feature can lead to arbitrage opportunities;
- (b) Discussion of the extent to which different classes of participants would be able to hedge the costs associated with each of those arbitrage opportunities;

Why a Pricing Issue

It is a generally accepted principle of markets that risks should be allocated to those who control them, are best able to reduce them and, to the extent they cannot be reduced, can best bear or hedge them. If, for whatever reason(s), differences between the proposed DAM and RTM systematically pose unmanageable costs for certain participant(s), market liquidity and fairness may suffer as a result.

Impacts of Issue

Market Impact

[To be developed]

Participant Impact

[To be developed]

IMO Processes and Procedures Impact

[To be developed]

Related Issues

- 005: Simultaneous Use of Ramping Generation Units for Energy and Operating Reserve
- 007: Imports and Exports Setting Price

Options Considered

[To be developed]

Selected References

Day Ahead Market Design Strawman - Release 4.0

http://www.theimo.com/imoweb/pubs/consult/mep/DAM_WG_Strawman-4_0.pdf

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Day Ahead Market Detail Design: Offers, Bids and Data Input

http://www.theimo.com/imoweb/pubs/consult/mep/dam_wg_IMO_DES_0010_DAM_Offers-Bids-DataInput.pdf

Day Ahead Market Detail Design: Calculation Engine

http://www.theimo.com/imoweb/pubs/consult/mep/dam_wg_IMO_DES_0011_DAM_CalcEngine.pdf

Day Ahead Market Detail Design: Dam and RTM Integration

http://www.theimo.com/imoweb/pubs/consult/mep/dam_wg_IMO_DES_0015_DAM_RTM_Integration.pdf

Day Ahead Market Detail Design: Market Surveillance, Assessment and Compliance

http://www.theimo.com/imoweb/pubs/consult/mep/dam_wg_IMO_DES_0020_MarketSurveillance.pdf