

ISSUE 16: HISTORICAL ANALYSIS OF NODAL PRICING

Date Raised

Noted in January 2004 at the Market Operations Standing Committee (MOSC) meeting.

Description

Market Participants requested that the IMO provide on-going analysis of historical nodal prices, as a continuation to the analysis presented by the Day-Ahead Market Working Group (DAMWG) at the Market Operations Standing Committee meeting on January 14, 2004.

Background

A presentation on Historical Nodal Pricing Analysis was given at the Day Ahead Market (DAM) Working Group meeting on December 11, 2003 and again at the Market Operations Standing Committee (MOSC) meeting on January 14, 2004. Analysis was performed comparing the uniform price to the historical nodal price of energy for data taken from October 4, 2002 to December 31, 2003. In addition, a spatial depiction of how the nodal prices varied across each of the 10 Ontario zones was provided. The goal of the analysis was to help stakeholders understand and assess the potential impacts of nodal pricing on the market, and how these prices have varied over time.

In response to these Historical Nodal Pricing presentations, a number of Market Participants requested that this analysis be performed on an on-going basis, and that the results be made publicly available.

The analysis is comprised of two components:

1. Total Pricing Comparison – to consistently compare the uniform and nodal (generator-weighted average) prices of energy and show how these prices have varied over time.
2. Spatial Analysis – to track how the nodal prices have varied across the 10 Ontario zones.

A possible addition to the current analysis would be to provide a comparison of the operating reserve (OR) prices under the uniform pricing and nodal pricing regimes. No such analysis exists at this time.

Why a Pricing Issue

Understanding and evaluating the difference between nodal and uniform prices will be of great value should the Ontario market move towards nodal, or locational marginal pricing in the future. In addition, dispatchable generators

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and loads (or those considering becoming dispatchable) will gain a better understanding of the basis for their dispatch instructions.

Impacts of Issue

Market Impact

In publishing historical nodal analysis, market participants may gain a better understanding of the basis for the IMO's dispatch instructions. In return, market efficiency and transparency should improve.

Participant Impact

[To be developed]

IMO Processes and Procedures Impact

[To be developed]

Related Issues

- 002: Publishing Nodal Price Data
- 004: Use of 12-times Ramp Rate in the Dispatch Unconstrained Algorithm
- 010: Over-forecasting of Demand in Hours 23, 24
- 017: Comparison of Operating Reserve Prices in Congestion Pricing and Uniform Pricing Regimes
- 018: Pricing and Allocating Line Losses
- 019: Line Loss Factors
- 020: Treatment of Imports in a Congestion Regime
- 022: Pricing Physical Constraints
- 023: Elimination of Constrained-off Payments
- 027: Timing Differences Between Unconstrained and Constrained Real-time Sequences

Options Considered

[To be developed]

Selected References

Historical Nodal Pricing Analysis Draft Presentation

http://www.theimo.com/imoweb/pubs/consult/mep/DAM_WG_2003Dec11-NodalAnalysis.pdf

Day Ahead Market Working Group Minutes, December 11, 2003

http://www.theimo.com/imoweb/pubs/consult/mep/DAM_WG_Minutes_2003Dec11.pdf

Market Operations Standing Committee Meeting Minutes, January 14, 2004

http://www.theimo.com/imowebpub/200405/mo_minutes_2004jan14.pdf

Market Summaries section on the IMO Website

<http://www.theimo.com/imoweb/marketdata/marketSummary.asp>