

## DRAFT

### Date Raised

Prior to market opening the IESO Board committed that the IESO would investigate exporting operating reserve from Ontario to neighbouring markets. Subsequently, the issue was raised at the March 1, 2007 MPWG and the February 26, 2007 Technical Panel.<sup>1</sup>

Addressing this issue is one of the 2008 priorities and performance measures for IESO MPWG.

### Description and Background

Current market design and rules only permit commercial importing of operating reserve into Ontario. There has been limited importing since market commencement, which consists of 30-minute Operating Reserve from Quebec and MISO. The IESO-administered markets do not permit the commercial exporting of operating reserve from Ontario to neighbouring jurisdictions.

Commercial exporting of operating reserve from Ontario was not part of the initial market design. There are two reasons for this. The first was that it was judged to be non-essential to starting the market. The second was the problems foreseen in developing the mechanisms to schedule and activate exports of operating reserve from Ontario. Exporting of operating reserve was, however, seen as a means to increase inter-market trading liquidity and efficiencies.

The scope of the issue has been expanded to include importing of operating reserve due to reciprocity considerations: mechanisms allowing exporting of operating reserve from Ontario should be matched by comparable mechanisms to import operating reserve to Ontario.

The IESO is not aware of the nature or extent of inter-market trade of operating reserve in other North American electricity markets.

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<sup>1</sup> [http://www.ieso.ca/imoweb/pubs/consult/mep2/MP\\_WG-20071206-issue-list.pdf](http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071206-issue-list.pdf)

## Why a Pricing Issue?

- Operating reserve and energy markets are co-optimized. Changes to how operating reserve is commercially traded will impact operating reserve and energy market prices. Some other areas of potential pricing impact include:
- Integrating inter-market operating reserve trade is expected to have an impact on the economic efficiencies and reliability of the associated markets.
- Inter-market commercial operating reserve trade may/may not give rise to unintended market outcomes with market pricing impacts.

## Impact of the Issue

### *Market Impact*

To be determined. Impact on market economic efficiencies, system reliability and prices to be considered.

### *Participant Impact*

To be determined.

### *IESO Process and Procedure Impact*

Integrating OR trade may have a major impact on IESO processes and procedures, which may include:

- Developing market rule amendments to permit/facilitate/enhance inter-market commercial operating reserve trade into the existing market structure.
- Developing a new level of co-ordination between the IESO and Ontario's market participants and neighbouring jurisdictions to schedule and activate commercially traded operating reserve between jurisdictions.
- IESO system tools (for example, Dispatch Scheduling Optimizer) may need to be upgraded to implement inter-market commercial operating reserve trade.

## Related Issues

038: Treatment of Shared Activation of Reserve

037: Operating Reserve Initiatives Resulting from NPCC Changes (closed)

036: Pricing In-Market Control Action Operating Reserve (closed)

007: Imports and Exports Setting Price (on hold)

## Options Considered

To be determined.

## **Selected References**

Introduction to Ontario's Physical Markets

<http://www.ieso.ca/imoweb/pubs/training/IntroOntarioPhysicalMarkets.pdf>

Interjurisdictional Energy Trading.

[http://www.ieso.ca/imoweb/pubs/training/Workbook\\_IJT.pdf](http://www.ieso.ca/imoweb/pubs/training/Workbook_IJT.pdf)

Joint Optimization of Energy and Operating Reserve

[http://www.ieso.ca/imoweb/pubs/training/QT20\\_JointOptimization.pdf](http://www.ieso.ca/imoweb/pubs/training/QT20_JointOptimization.pdf)