

IESO MANAGEMENT UPDATE

To: Stakeholder Advisory Committee

From: JoAnne Butler, Vice President, Market and Resource Development

Date: February 23, 2015

Subject: Electricity Market Forum

Information Item

The IESO has nearly completed addressing all of the recommendations stemming from the 2011 [Electricity Market Forum Roadmap](#). The Electricity Market Forum was established in March 2011 to:

“...identify the principal issues being encountered or anticipated in the operation of and participation in the IESO-Administered Markets and to make recommendations that address those issues in light of the respective roles of the market, contracts, and regulation.”

The remaining roadmap recommendations will be addressed with the completion of the Review of Generation Guarantee Programs (SE 111) and the Energy Market Pricing System Review (SE 114). These respective engagements and next steps are discussed below.

Review of Generation Guarantee Programs (SE 111)

The IESO conducted two stakeholder meetings, one in November 2014 and another in January 2015 related to the development of a solution to mitigate the issue of self-induced CMSC incurred during generator ramp-down. The IESO's objective has been to design a solution that:

- Provides flexibility for generators to effectively signal their desire to ramp-down; and
- Provides incentives for generators to operate efficiently.

At a high level, the proposed settlement solution will:

- Define the ramp-down period
- Create a methodology for allowing appropriate compensation

The IESO continues to work with stakeholders on final details related to the proposed solution in a manner consistent with design objectives. With the progress made on this engagement, the IESO has also initiated the market rule amendment process with an introduction at the February 24 meeting of the Technical Panel. The engagement is on track for completion by end of Q1 2015.

In the course of this engagement, the IESO considered the effectiveness of aspects of both the day ahead and real time guarantee programs from a cost, as well as an operational effectiveness and economic efficiency perspective. The analysis signalled the longer-term need for market design enhancements over short-term program changes. The development of an intra-day commitment process with multi-part bids and multi-hour optimization would address many of the potential RT-GCG related issues identified and would result in a more efficient longer term solution to real-time commitment. Intra-day commitment with multi-part bids also appears to be a best practice in neighbouring jurisdictions.

Energy Market Pricing System Review (SE 114)

Working closely with the IESO Markets group, Market Reform has completed its review and report on Ontario's energy market price setting system. The purpose of the review was to evaluate the current real-time pricing process and potential options for improving, amending, or replacing the two schedule price setting system.

Market Reform, with the support of the IESO, simulated the dispatch and market outcomes for four market design alternatives for a multi-year period:

- **No change:** Current market design with two separate schedules for dispatch and settlement and 3X ramp rate
- **Look Ahead:** Current market design with a one times ramp rate and look ahead capability in the unconstrained algorithm
- **Locational Pricing - Dispatchable Resources Only:** Locational marginal pricing with a uniform Ontario price for non-dispatchable participants
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The results of the study demonstrated that having **locational pricing for dispatchable participants** would lead to slightly lower costs for market consumers than the current market design or any of the other alternatives modelled. The net benefit was estimated to

be \$127 million over the study period of 2018 to 2026 –largely attributable to the elimination of congestion payments being reflected in lower market uplifts.

In addition to providing a quantitative assessment of the benefits, Market Reform also identified a series of potential longer-term benefits to Ontario. By simplifying the market design, complicated CMSC arrangements would be eliminated in favour of settlement of an energy quantity at prices reflective of locational costs. More competitive bids would lead to efficiencies as well as addressing the potential for unwarranted CMSC payments through strategically modified bid and offer prices. Other cited benefits include:

- An improved locational price measure to inform long term transmission and generation planning
- The market design can be a platform to enable future market enhancements in a more streamlined and less complex environment.

The IESO will be hosting a stakeholder meeting with representatives from Market Reform on March 24th 2015 to review the study and its key findings and respond to stakeholder questions and comments.

Next Steps

The close of the Energy Market Pricing System review engagement will mark the completion of a series of studies stemming from recommendations in the market forum roadmap aimed at identifying potential improvements to components of the real-time market. The results of these studies have been instructive in signalling the value of potential market enhancements to allow for:

- more frequent intertie scheduling
- enhanced real-time unit commitment (multi-hour optimization and three part bids)
- locational pricing for dispatchable resources

Due to the complexity of the real-time market and the interplay between each of the components of the market, none of these enhancements can be implemented on their own. In addition, a key piece of feedback from stakeholders throughout these engagements was a caution that the IESO consider market design changes not as discrete elements but in a holistic manner in the context of a broader engagement.

With this in mind, the IESO plans to develop a stakeholder engagement to commence later this year that would propose a market redesign that considers the implementation of the key findings in the studies identified above.