

Enhanced Day-Ahead Commitment

The IESO has undertaken a comprehensive review, a detailed cost-benefit analysis and extensive stakeholdering of various options for day-ahead mechanisms. This culminated with the September 5, 2008 decision of the IESO Board to approve Enhanced Day-Ahead Commitment (EDAC) processes; these represent the implementation of common elements, guarantees and export inclusion associated with two of the day-ahead options considered. The background leading to the adoption of these processes, and the approved course of action for moving forward are summarized below.

IESO Stakeholder Engagement

Stakeholder engagement has always been an intrinsic part of IESO decision-making processes. Under s. 13.2 of the *Electricity Act, 1998* the IESO is required to establish one or more processes by which stakeholders may provide advice and recommendations for consideration by the IESO.

In September 2005, following consultation, independent review and approval of both the IESO Board and Ontario Energy Board (Board), the IESO developed an enhanced Stakeholder Engagement Process and established the Stakeholder Advisory Committee as an integral part of that process. An important building block of this approach is the design of a stakeholder engagement plan that specifies the steps of consultation and the roles and responsibilities of the IESO and stakeholders. The stakeholder engagement process is designed to ensure that those affected by an IESO initiative will be given the opportunity to provide input before a decision is made and to ensure that the decision-making process is transparent, efficient and consistent.

IESO Stakeholdering of Day-Ahead Mechanisms

In September 2006 the IESO initiated Stakeholder Engagement Plan (SE-21) to understand stakeholders' interest and priorities in evolving the electricity market as it

relates to day-ahead mechanisms. The initial plan provided a description of the significant decisions which had to be made to create a high level design that outlined the basic features of a Day-Ahead Market. Over the following year the IESO engaged stakeholders in exploring a number of options for day-ahead mechanisms which resulted in the IESO developing a *"Discussion Paper on Day-Ahead Mechanisms"*, which was published on August 10, 2007. Based on stakeholder feedback on this document, on October 4, 2007, the IESO posted a plan detailing the intended path forward and upcoming milestones for evolving the Day-Ahead Market. The immediate objective was to determine if the Unconstrained Day-Ahead Market (UDAM) Option as described in *"Discussion Paper on Day-Ahead Mechanisms"* is "likely to deliver benefits to the market that exceed the costs, whether it is expected to maintain or improve reliability in light of the coming changes to Ontario's generation fleet, and confirm that it is not likely to introduce any anti-competitive incentives." Following direction from the IESO Board in December 2007, work on the cost-benefit analysis progressed in 2008, with the range of options narrowed to the following three options, plus a baseline scenario:

Baseline Scenario: Carrying on with the current wholesale market and Day-Ahead Commitment Process (DACP) design, along with the publication of the IESO day-ahead price forecast of the real-time Hourly Ontario Energy Price (HOEP) and a review of reliability cost guarantees.

Option 1: An EDAC process using 24-hour optimized unit commitment, three-part offers, refined cost guarantees, and the continued publication of the IESO day-ahead price forecast of real-time HOEP.

Option 2: An EDAC process using 24-hour optimized unit commitment, three-part offers, refined cost guarantees and an Energy Forward Market (EFM).

Option 3: A UDAM. Like Options 1 and 2, the UDAM would incorporate an EDAC process with 24-hour optimized unit commitment, three-part offers, and refined cost guarantees. Option 3 also held out the potentially attractive feature of producing day-ahead financially-binding prices and schedules, although derived from the IESO unconstrained algorithm.

On April 22, 2008 the Board issued its decision on the IESO's 2008 fee application. In relation to the requested approval of proposed Day-Ahead Market related capital expenditures, the Board concluded that it was appropriate for the stakeholding process to develop in the normal course. Upon the completion of that process, which was to include a detailed cost-benefit analysis, the IESO Board would consider and decide upon the appropriate course of action. It was contemplated that the IESO could then return to the Board for any necessary approvals. The IESO has proceeded in the manner directed by the Board.

The IESO Cost-Benefit Analysis

The IESO released its business case and cost-benefit analysis entitled "Day-Ahead Market Evolution Preliminary Assessment" on May 5, 2008, attached as Appendix A to this document. This report outlined the costs and benefits of each of the three options for improving the current day-ahead mechanism. Both IESO and stakeholder costs were considered, as were the offsetting gains to be realized through market efficiency improvements.

Overall, the IESO Day-Ahead Team ranked Option 2, an EDAC process with an EFM, as the option that would provide the highest net benefits to the province relative to the current DACP.

As for Option 3, UDAM, the difficulties in trying to match financial outcomes and physical dispatch, and the potential stranding of an investment that would further

embed the difficulties associated with the use of an unconstrained schedule, undermined its potential advantages. In attempting to align financial outcomes and physical dispatch, the complexity of forcing convergence of the constrained and unconstrained schedules inherently adds risk - both in the implementation of a more complex design, and in the potential cost to consumers of the guarantees that would be required to force efficient outcomes. These increased risks are naturally avoided through the pricing in a conventional two settlement system. In short, Option 3 did not offer the range of benefits associated with conventional day-ahead markets in surrounding jurisdictions, all of which produce prices based on constrained schedules.

While there was substantial stakeholder support for the Team's ranking, some stakeholders raised concerns regarding the findings of the cost-benefit analysis. In particular, proponents of Option 3 expressed concern that by not selecting UDAM, interim reliability measures would be entrenched as market mechanisms, thereby inhibiting the evolution towards a fully functioning market. On the other hand, those who advocated for either Options 1 or 2 argued that not choosing one of these options would result in significant costs to develop an unconstrained model which itself would be dissimilar to neighbouring markets.

Following their meeting on June 19, 2008, and with strong support from the Stakeholder Advisory Committee, the IESO Board directed the IESO to continue to work with stakeholders to address the outstanding concerns regarding the IESO's preliminary assessment on day-ahead mechanisms. In particular, the IESO was to provide further clarification and analysis on:

- Cost guarantee designs and export inclusion for Options 1 and 2;
- Review of the EFM design; and

- The alignment of unconstrained and constrained schedules in an unconstrained Day-Ahead Market.

In parallel with this, work was to continue with respect to the common elements of the three day-ahead options currently under consideration. Further analysis on the development of market rules and system definition were to be undertaken to support procurement for the common elements which included:

- A unit commitment process based on 24-hour optimization;
- Inclusion of 3-part bids/offers; and
- Providing a multiple pass unit commitment process.

More detailed analyses of the common elements, the cost guarantees and treatment of exports for Options 1 and 2, were posted on August 8, 2008. These documents and the status of stakeholder discussions were reviewed with Stakeholder Advisory Committee members on August 20, 2008. Based on the additional evaluation work, the IESO recommended the development of an enhanced day-ahead commitment process (as described in either Option 1 or Option 2) as the prudent next step for Ontario rather than a UDAM. The documents posted on August 8, 2008 and the minutes of the August 20, 2008 Stakeholder Advisory Committee meeting are attached to this document as Appendix B.

Careful consideration has been given to all of the views expressed by stakeholders since the release of the cost-benefit analysis assessment in May 2008. A concluding report to indicate the relative materiality of these concerns between all options was presented at a September 4, 2008 working group meeting. This report is attached to this document as Appendix C.

IESO Board Approval of EDAC

All members of the Stakeholder Advisory Committee, with the exception of the Marketer/Trading community who supported the development of UDAM, agreed with Management's recommendation to the IESO Board. On September 5, 2008 the IESO Board approved Management's recommendations to proceed with the EDAC processes. In making its decision, the Board considered stakeholder feedback and the advice it received from the Stakeholder Advisory Committee. Following the IESO Board's decision, the IESO has proceeded to work with stakeholders to finalize the design and begin implementation of the common elements, guarantees and export inclusion associated with Options 1 and 2 in the "Day-Ahead Market Evolution Preliminary Assessment". The project is tentatively scheduled to begin market trials in mid 2010. The IESO Board decision is attached to this document as Exhibit D.

The IESO will also continue to review the EFM and report back to the IESO Board later in 2008. The IESO is not seeking approval for capital expenditures in relation to EFM alternatives at this time.

The stakeholder engagement process used to support the IESO Board's decision was substantial and inclusive covering a period of over two years with over 20 face to face meetings with stakeholders from a broad range of constituencies (including industrial consumers, commercial consumers, residential consumers, industrial loads, generators, marketers, distributors, retailers, government, consultants and representatives from the gas industry). It entailed the presentation and discussion of the IESO's cost-benefit analysis and the stakeholder engagement process resulted in strong stakeholder support for the EDAC.

In conclusion, the approved implementation of the common elements, guarantees and export inclusion associated with Options 1 and 2 deliver net benefits and will deliver:

- Improved efficiency of unit commitment to reduce the overall cost of supplying market demand;
- Improved operational signals to generators, which, among other things, should result in improved coordination of gas and electricity markets; and
- Support to anticipated changes in Ontario's electricity sector without inhibiting future market evolution initiatives.

Preliminary project milestones are:

- Finalized design of common elements, cost guarantees and export inclusion – November 2008;
- Completion of detailed design for procurement and issuance of RFP – March 2009;
- Selection of vendor – April 2009; and
- User acceptance testing (subject to review in association with procurement) – June 2010.