

IESO Recommendation on continuing the Day-Ahead Commitment Process



Events in 2005 underscored the challenges that could be faced in providing a reliable supply of electricity in Ontario over the next few years.

In light of these events, the IESO launched a number of initiatives designed to enhance reliability in preparation for the summer of 2006, by increasing the certainty of market mechanisms. Prior to the summer of 2006, the IESO implemented the Emergency Load Response Program (ELRP), addressed dispatch issues for internal generation, introduced Real Time Failure Charges for intertie failures, and implemented the Day Ahead Commitment Process (DACP).

Combined, these initiatives made significant contributions to maintaining the reliability of the IESO controlled grid, in particular on August 1 when Ontario set a new record for peak demand of 27,005 megawatts (MW).

Program Criteria for Success

The DACP was introduced to enhance reliability through day-ahead import and generator commitment. The IESO developed three criteria to determine whether this objective was met:

- Imports were able to be scheduled day-ahead;
- Import failures were reduced; and
- Sufficient internal generation was online to meet demand.

During the summer of 2006, actual performance under each criterion was judged successful.

Although the overall level of import transactions across the summer was lower than in the previous summer, Ontario relied heavily on imported energy to meet record demand experienced in late July and early August, 2006. The financial incentive provided through the DACP encouraged traders to schedule up to 40 per cent of these imports day-ahead during this high demand period. IESO analysis indicates that the DACP met its first criterion without an increase in total Intertie Offer Guarantee (IOG) payments. Total Intertie Offer Guarantee costs during the operation of the DACP were \$6.65/MWh, not unexpected in a period of continuing convergence between predispach prices and real time prices.

Import failures, which were of particular concern during the summer of 2005, were reduced in 2006. One of the advantages of scheduling imports day-ahead is that it provides market participants with sufficient time to secure ramp and transmission resources in neighbouring markets, thereby reducing the likelihood of failure. As a result, imports failed at a rate of 2.82 per cent during the summer of 2006, compared to 3.58 per cent in 2005. DACP clearly contributed to the success in reducing import failures, and as such met the second criterion.

Finally, the DACP's day-ahead generation cost guarantee provided many market participants with the incentive to commit their resources one day in advance of real-time. For example, for the forecast peak hour on August 1, 2006, the DACP's Pre-dispatch of Record had economically scheduled 98.6 per cent of the internal resources that actually ran in that hour. This day-ahead scheduling provided the IESO with greater certainty in advance of the dispatch day that sufficient generation would be available and online to meet demand. This fulfilled the third criterion, at an incremental cost of approximately \$1.1 million over the cost of similar units' Spare Generation On Line (SGOL) starts. IESO analysis showed no significant impact to the market price.

The Short-Term Outlook

The importance of the criteria identified above is not exclusive to the summer months. The benefits of the DACP, such as day-ahead scheduling of imports and internal generation, and reducing import failures, are important year-round.

The 18-Month Outlook released on September 25, 2006, reports that under normal weather conditions, from October 2006 to the spring of 2008 there will be periods during which Ontario will rely on imports to meet demand. A functioning DACP that enables domestic resources and import transactions to be scheduled in the day-ahead timeframe will allow maximum flexibility for importers to schedule their transactions in neighbouring markets and to purchase "firmer" transmission service.

The IESO Business Plan discusses plans for the development of a day-ahead market (DAM) for Ontario, and a draft DAM stakeholder plan has been published by the IESO. Current expectations are that the DAM would be implemented by late 2008. Until that is accomplished, there is no other market evolution initiative contemplated that would provide the day-ahead assurances provided by the DACP.

Recommendation

IESO staff recommends that, at their November meeting, the Board of Directors approve the continuation of the DACP until such a time as another program is implemented which provides at least equivalent reliability benefits.

Items for Further Investigation

Although the IESO is recommending that the DACP continue, there are a number of items of interest that warrant further investigation. They include:

- Interplay between the day-ahead generation cost guarantee (DAGCG) and the real-time spare generation on-line (SGOL) program: These two mechanisms both attempt to

encourage Ontario generation to commit to be on line, but the programs are fundamentally different and may be combining to create market inefficiencies. The IESO expects that the DAGCG will have its greatest impact during shoulder periods and hence significant experience will be gained over the coming months. The IESO will continue to assess the performance under the two programs.

- **Financially binding status** (which is currently offered on the Michigan interface, and which has yet to be implemented on the New York interface due to inability to successfully define business processes with NYISO): Financially binding status has had a very low participation rate since its inception on August 1. It is recommended that a review of financially binding status be carried out with the Intertie Traders Subcommittee to determine if it can be eliminated.
- **Impact of day-ahead demand forecast errors:** Both the success and efficiency of the DACP are reliant on accurate day-ahead demand forecasts. The IESO regularly reviews the impact of demand forecast errors and considers methods to improve performance. Processes and tools are currently being investigated to address this issue. In addition, a stakeholder engagement process that plans to explore ways of improving demand forecasting error has been initiated.

Future Design Enhancements

Most day-ahead market designs in use in other jurisdictions include a sub-process in which the ISO forecasts next-day demand and provides a financial commitment to resources necessary to meet that demand. Such sub-processes are similar in nature to the DACP. However, they differ from DACP in that they typically include the ability to perform a 24-hour optimization of resource utilization using competitively-based, three-part bids or offers. While adding this level of sophistication to the DACP would enhance both efficiency and effectiveness, it would require some, perhaps significant, design and implementation effort on the part of the IESO and its stakeholders. The IESO recommends that the decision on whether or not such refinements should be introduced into the Ontario market be incorporated into the definition phase of the DAM project.

For a more comprehensive assessment of the DACP, including a detailed review of performance and cost, please refer to: <http://www.ieso.ca/imoweb/pubs/consult/se22/se22-DACP-Recommendation-gas.pdf>