

IESO Stakeholder Advisory Committee

TO: IESO BOARD OF DIRECTORS

DATE: November 1, 2006

FROM: STAKEHOLDER ADVISORY COMMITTEE

SUBJECT: BRIEFING NOTE

This memorandum is to update the IESO Board of Directors on the November 1st Stakeholder Advisory Committee meeting. With one exception the meeting was attended by all Stakeholder Advisory Committee members. IESO staff presentations were made on the following topics; the DACP Assessment, the Dispatch Issues, the upcoming Customer Survey and Locational Marginal Pricing.

The other primary discussion item related to Market Vision and Themes.

Specific Actions by the Committee

The Committee wishes to advise the Board of the following specific actions that were taken:

1. The Committee members discussed and provided input to IESO staff to continue with the Day-Ahead Commitment Process and outlined their individual preferences for the Locational Marginal Pricing alternatives presented to them. Additional details are provided in the issues discussion.

Discussion Highlights: Demand Forecast Deviations Working Group

Mr. Cowbourne confirmed that the IESO Working Group Team Lead clearly understood the nature of the work to be done and that if at the end of the review it was necessary to change the performance measures around load forecasting the IESO will do so. Mr. Bentz commented that the Committee should be restricted to a discussion of the theoretical underpinnings of performance measures (i.e. it should be policy driven and not prescriptive).

Discussion Highlights: Ramp Rate Multiplier

Mr. Campbell reported that IESO management recommended at the IESO's September Board meeting that further consideration be postponed until the November 17th to allow further discussion regarding concerns that have been raised around the stakeholder process and in particular about the calculations regarding the potential impact of this change. Discussions have taken place with AMPCO relating to these calculations and based on these discussions, AMPCO has agreed that the calculations are accurate.

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AMPCO has not, however, agreed to the concept. IESO management wrote to all individuals who had submitted comments to the Board and offered to meet and discuss any concerns. To date no response has been received to these invitations. Additional information, including independent corroboration of the calculation of the potential impact of the proposed change, has been posted on the IESO website.

Mr. Bentz questioned whether there had been any change to the pricing impact since the last presentation to SAC. It was confirmed that the calculation has not changed since that last presentation. Mr. Humphries commented that while he was not questioning the impact issue he did not see the benefit this change would bring to consumers other than higher prices. Mr. Hunt of Optimal Technology recommended a communication package to customers around this issue to help alleviate concerns. Mr. Passi of Xstrata Nickel commented that thus far his organization is not accepting the position that this change will improve market efficiency.

Discussion Highlights: ERO Standard Setting and Enforcement

Mr. Campbell advised that the OEB has entered into a memorandum of understanding (MOU) with NERC, which is posted and available for review. The IESO is similarly working on an MOU with NERC and NPCC. Mr. Dorey commented that Ontario is approaching this issue differently from the rest of North America. He expressed his concern over the lack of public discussion on how the MOU's would be structured and how they relate to what other North American Independent System Operators are planning to do.

Discussion Highlights: Inter-tie transactions Role in Setting Real-time price

The working group has decided that this issue would be combined with the day-ahead market discussions and that if a day-ahead market is not implemented in Ontario it will be revisited at the Market Pricing Working Group.

Mr. Horrobin asked that if there is a significant delay in a day-ahead market would the issue be revisited sooner rather than later. Mr. Campbell advised that if a decision was made to not proceed with a day-ahead market, or there was a significant delay in the day-ahead market, this matter would be discussed at the working group.

Discussion Highlights: Day-ahead Commitment Process Assessment

Mr. Finkbeiner made a presentation on the day-ahead commitment process recommending indefinite continuation of the program as the reliability objectives had

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been met and the significant benefits realized in terms of generator unit commitment and import failure reduction.

Mr. Osborne requested the details of the net impact per MW of the program and the time period covered in the analysis. The study period was June 1st to September 12th and the net impact per MW was very small. (The total impact was \$1.1 M over the study period). Mr. Horrobin inquired about the impact of DACP on the real-time price; staff advised that, based on analysis to date, there has been no impact on real-time prices.

Mr. McMillan posed a number of questions. He inquired about the measurement period, the total megawatts over the period and the 40% transaction level figure. The 40% value reflects the percentage of import transactions that were being scheduled day-ahead over the peak hours and the total megawatts over the period was 1.7 million MWH's. Mr. McMillan then asked about the downward trend of the failure rate and whether there was a target or deemed acceptable rate.

Mr. Finkbeiner indicated that during periods when the Ontario Market is reliant on imports the target rate is zero. During periods when the market is not dependent upon imports a failure rate of 2.82% is acceptable. Mr. McMillan also asked whether a binding day-ahead market would produce better results. Mr. Finkbeiner responded that to the extent that better price signals produce more economic decisions, a day-ahead market would produce a more efficient outcome, based on the experience of other jurisdictions. The costs and benefits of continuing the program in perpetuity have yet to be established.

Ms. Girvan requested clarification on the costs comprising the \$2.6 million. These costs included the IESO's full implementation cost including consultants, systems, development of reports and staff. The ongoing annual resource costs are estimated to be equivalent of one full-time staff.

Mr. Horrobin commented that the implementation of DACP was linked to a degree to the issues of inter-ties setting the price and twelve times ramp rate. Given that these issues have not been resolved what is the rationale for extending the DACP at this time? IESO staff responded that removing the DACP sunset clause enables the realization of continued reliability benefits with reduced failed import transactions and generation commitment; until a replacement process is in place to provide the same benefits. Mr. Horrobin further noted that the review period is limited and that we should be cautious about continuing a program based on such limited data. IESO staff responded that the IESO is committed to having an ongoing review of the process and that if inappropriate effects on price are noted, action will be taken as required.

Mr. Kerr of Coral Energy expressed concern that with the removal of the sunset clause, the pressure on the IESO to move forward with a day-ahead market would be reduced.

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Mr. Dorey observed that the continuation of DACP would make it the base case against which other enhancements can be assessed. Mr. Alpajaro of Bruce Power said that although the IESO continued to move forward on DACP enhancements, a sunset clause should be maintained. Ms. Girvan then asked for the IESO's perspective on the potential of a sunset clause. Mr. Finkbeiner indicated that the IESO is committed to discussing the issues of day-ahead market, inter-ties setting price and ramp rate. It is not necessary to tie this program to a sunset clause to drive a different program that may or may not be related.

Mr. Bentz then polled the Committee to ascertain their views on endorsing or modifying the recommendation:

Ms. Girvan - would like to see the program continue but subject to a review, which may or may not involve a sunset clause, in one year.

Mr. Humphries - agreed with continuing the program but thought that it should be subjected to annual review without a sunset clause.

Mr. Osborne - agreed that he would like to see a firm date for it to come back to the Committee and that he did not care if it was a sunset clause or a review.

Mr. Picardi - indicated that he would like a statement indicating that the DACP is a temporary measure and that the Day-Ahead Market initiative would continue to be pursued as well as other mitigating measures.

Mr. Reeves - supported the continuation of the DACP and did not see a necessity for a review date as the IESO is monitoring changes.

Mr. Stradling - supported continuing the program with a review and does not support a sunset clause.

Mr. Dorey - supports incremental changes of this nature and supported a review over a sunset clause.

Mr. Horrobin - supported a new sunset date or firm review of the program.

Mr. McMillan - indicated a need to get to a Day-Ahead Market and views a sunset clause as important.

Mr. Campbell summarized that while there wasn't a clear endorsement of a sunset date there was common support for a firm review date. As the IESO is already committed to completing an annual DACP review there may be little practical difference between this provision and a sunset clause. It was indicated to Mr. Campbell that in any event, it was the preference of the Committee that this issue be brought back to the IESO SAC for input and consideration in approximately one year's time.

Discussion Highlights: Dispatch Issues

Mr. Finkbeiner summarized the issues the Dispatch Working Group had discussed following their inception in November 2005.

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Mr. Reeves questioned whether the 15 MW deadband is an industry standard. In moving to the revised deadband of 15 MW, the review assessment was limited to Ontario market results and the impact of moving to a 15 MW deadband in terms of total ability to meet demand. It was clarified for Mr. McMillan that the aggregation capability is limited to related units under common ownership.

Mr. Picardi inquired as to the transparency of a market participant using replacement offers or taking advantage of the aggregation of river systems and the associated timelines ? Mr. Finkbeiner replied that as long as the aggregated units maintain compliance it's up to the owner to determine how they are managed.

The market would normally be unaware of someone using replacement offers or aggregation. The aggregation program will be reviewed against the upcoming NERC reliability standards to ensure they do not conflict. Mr. McMillan commented that it is important to know what is being done in real time. Mr. Heaton of OPG commented that if you are not on dispatch it is at the generator's peril as this is a market compliance issue.

Discussion Highlights: Customer Survey

It was confirmed for Mr. Humphries that the IESO Customer Survey is assessing the views of the direct market participants. Mr. Humphries asked what steps the IESO is taking to gauge the satisfaction of other indirect customers. Mr. Young indicated that the IESO is looking at this issue and that a broader qualitative study in terms of stakeholders is something that should be considered.

Mr. Young offered to return to present the results to the Committee following completion of the Customer Survey.

Discussion Highlights: Market Vision and Themes

Mr. Bentz initiated a general discussion regarding progress to date on this matter and future plans. He observed that a recurring theme is the question of the appropriate framework for decision making. He proposed consideration of developing a framework in order to improve and provide consistency in how we, as an advisory body, analyze and determine the merits of individual proposals and initiatives.

Mr. McMillan indicated that in a business case involves more than just costs but also must consider managing exposure and creating a competitive market. Mr. Dorey observed that many of the incremental initiatives as well as their impacts are interrelated. Initiatives need to address consumer concerns with price stability and

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environmental protection and they also must be politically acceptable, not just simply good for market efficiency.

Mr. Dorey suggested that it may be necessary to return to a discussion of the overall market vision, which he understands the IESO and OPA are working on, as part of the framework for moving forward. Mr. Bentz questioned whether the Committee should revisit the notion of a different market vision or one that has passed the reality check of where we are today in terms of market evolution, the Government's position and OPA Supply contracts. He is seeking common agreement on the criteria, the definition of criteria and how they will impact decision making. Mr. Bentz views this as requirement for building consensus and ultimately better decision making.

At present there are different views of what constitutes a business case. Mr. Humphries indicated that the Committee members need to be able to agree on what information is required from IESO staff in order to conduct an assessment of the costs/benefits of the alternatives and assess their value. Mr. Picardi stated that a framework for decision making is very important and needs to be looked at in terms of the types of initiatives that will support market evolution and as well as in terms of where the market is today. Mr. Osborne stated that unless you have certainty on future costs, decisions will be made today that are going to be long-term negative for the Ontario market. This uncertainty regarding price and other initiatives, which implicitly increases prices, will lower consumption for the wrong reasons.

Ms. Girvan questioned how to make the best use of the Committee and how the Committee can best serve the Board of Directors. Specifically, define what is the optimal business case for assessing initiatives and hold a dialogue with the Board on how best to serve their needs in terms of decision making. Mr. Bentz said that broader question is around the role and the effectiveness of the Committee and how its members can best serve the needs of both their constituents and the Board of Directors. Mr. Bentz suggested that dialogue with the Board is the right starting point. Mr. Bentz indicated that he will take the lead and work with staff on this issue. In addition both Mr. Bentz and Mr. Humphries will initiate discussions with the Board about the Committee's role and the Board's associated expectations of the Committee. They will report back to the Committee at the next meeting.

Discussion Highlights: Locational Pricing Results

Mr. Kozlik framed his presentation in the context of the functionality that needs to be added to support a Day-Ahead Market. He outlined three possible courses of action or alternatives and invited feedback from the Committee members and stakeholders. Those alternatives were: 1) to proceed with gusto on additional nodal pricing analysis; 2) to abandon locational pricing, or 3) to continue to learn more about LMP but at a measured pace.

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Mr. Bentz asked if there was a clear staff preference in terms of the alternatives or is the IESO looking for input and Mr. Kozlik confirmed that the IESO is looking for advice. Mr. Humphries questioned whether the total or commodity price would be higher in an LMP regime and if the supporting analysis would include the benefits of import/export and CMSC. Mr. Kozlik indicated that at this point he could not quantify the magnitude of the increase but that the total price, which could be mitigated through arbitrage, will be higher. Mr. Dorey asked if the previous barriers relating to implementing DAM without LMP still exist today with DACP. Mr. Kozlik indicated that those limitations no longer apply because the DACP only considers the constrained model.

Mr. Bentz questioned if the IESO has jurisdictional authority to implement LMP on its own. Mr. Campbell advised that while it would require a market rule change it would also require a decision at the provincial government level. He further stated that it is the IESO's goal to evolve towards efficiencies over a longer time period supporting appropriate investment decisions in facilities which will get rid of the price differences. Mr. Bentz further commented that with the IPSP, the supply mix would not be as susceptible to local price conditions.

In today's market the price is suppressed because the price is calculated using surpluses available in the Northwest with the end result that there is less incentive to conserve in the rest of the province. Mr. Bentz questioned how LMP incents transmission investments. In reply Mr. Kozlik said that LMP sends signals but the policy on how Ontario will invest in transmission in the future has not been determined. LMP gives a sense of the cost of congestion differences and reinforces additional generation investment decisions to solve some of these problems but does not necessarily result in a transmission solution. Mr. Humphries asked what LMP does for the Ontario economy from an efficiency point of view and if it is the best economic decision from that perspective. Mr. Kozlik encouraged discussion on this issue by Committee members.

Mr. Humphries expressed concern regarding the impact of LMP on industries that cannot easily relocate in Ontario and broader impacts on the overall economy. Mr. Picardi stated that transition/fairness issues need to be considered but are separate and distinct from efficiency. Mr. Dorey asked whether the IESO had looked at the Alberta model and does that have more appeal. Mr. Kozlik indicated that the IESO had looked at the Alberta model and understands that it solves a lot of what LMP would indicate are problems but as with any system, congestion does occur. Mr. Picardi asked how congestion payments are currently allocated to consumers; they are currently socialized across Ontario and are not location specific. Ms. Girvan asked for the key reasons why LMP should move forward. Mr. Kozlik said that it is in support of greater market efficiency.

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Mr. Horrobin asked about the political will over the next few years to implement LMP. Mr. Horrobin also asked about the impact on the timing of implementation of a day-ahead market if it was decided to proceed with additional nodal price analysis in the event that Option 1 or 3 are chosen. Mr. Kozlik indicated that is probably a year's work and it also depends on the locational model chosen. Mr. Kozlik further explained that it would make sense to settle on a locational model that was similar to those being used in other jurisdictions and to leverage the day-ahead market design based on the experiences in other jurisdictions as much as possible. Mr. Horrobin further inquired about Option 2, "abandoning" LMP. A day-ahead market that will result in increased efficiencies and increased benefits to Ontario with unconstrained pricing models will be difficult. There is the 2003-2004 experience with no DACP. Although DACP helps with the DAM model, it has injected complexities into the market by providing day-ahead guarantees and how they are interplayed with the real-time issues. Trying to design an unconstrained day-ahead market is extremely complicated; it is not a trivial exercise.

Mr. Hunter of Manitoba Hydro offered a number of comments based on his experiences in MISO. LMP is designed for a highly dispatchable thermal system and it is questionable whether that's the situation in Ontario given the amount of nuclear generation which is essentially non-dispatchable. Hydroelectric generation is also a significant issue. Currently hydroelectric resources in the northeast generate as much as they can on-peak and power flows north off-peak but with LMP hydroelectric resources will receive less signals and will do potentially less ponding. As well, the study period used was a period of high hydroelectric generation which results in lower offer prices for hydro, which would mean lower prices in the northwest, but during a drought situation the northwest becomes an energy importer and then the price becomes higher in the northwest than in the south. The study period needs to be carefully considered. Other issues include: 1) LMP can produce extremely volatile prices for location which have few options, and 2) LMP is intended to achieve optimal generation siting but in Ontario the OPA has that responsibility and LMP hasn't worked well for this purpose in other jurisdictions.

Mr. Hunt of Optimal Technology suggested as a transition measure looking at implementing LMP at the import and export points so those nodes would have different prices while Ontario would have one price. Implementing this on a transitional basis will help stop inefficient exports because the price is properly determined and there would be incentive to export out of the northwest and it would indicate the real price in that zone.

Mr. Bentz then polled the Committee members as to their views of LMP:

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Mr. McMillan - stated that moving toward LMP made sense but there is the question of the political will to implement LMP and without political will it is doubtful that LMP can be implemented. A more practical perspective is to deal with what we have today and install a simple system for a binding day-ahead market. He is on the fence with this issue.

Mr. Horrobin – he is also on the fence with this issue as he would like to receive more analysis of the implications of implementing LMP and some indication from either the IESO Board or others that there is merit in pursuing this option further.

Mr. Dorey – he would like to abandon LMP studies and explore DACP enhancements that may bring about additional benefits to the market. Ontario should also build additional transmission.

Mr. Stradling – he is also on the fence with this issue because moving to a Day-Ahead Market is the key priority and the impact of LMP on DAM it is not known.

Mr. Reeves – indicated that the Committee should not be overly concerned about the politics but with what they themselves think about the proposals. Option 3 is not about implementing LMP but rather studying it. Mr. Reeves supported option 3.

Mr. Picardi – he is somewhere between Option 1 and 3 as more analysis would be beneficial.

Mr. Osborne – he is not adverse to Option 1 and seeing additional analysis. However, if that analysis confirms what has been presented to date then he would support Option 2.

Mr. Humphries – he is leaning towards Option 3 but favours a more aggressive pace in order that the analysis can be completed and the impacts known while at the same time not losing the opportunities that may occur as a result of enhancements to DACP. One alternative would be for LMP to be implemented only on the supply side, and thus address some of the political issues.

Ms. Girvan – she views Option 3 as the best although the political will to implement LMP needs to be examined and there are a lot of unanswered questions.

Mr. Bentz – he summarized that the theme he was hearing is that a day-ahead market is preferred but the political will to move this issue forward needs to be carefully considered. However, political consideration alone should not prevent the Committee from making the right thing decision. Mr. Bentz supports Option 3.