



Power to Ontario.  
On Demand.

December 15, 2011

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Dear Ms. Leclair:

Re: Market Surveillance Panel Monitoring Report

Your letter of November 16, 2011, requests that I advise you of: a) the steps that the IESO plans to take in response to the recommendations made in the Market Surveillance Panel (MSP) *Monitoring Report on the IESO-Administered Electricity Markets* for the period from November 2010 – April 2011, and the estimated timelines for completion of those steps; and b) whether, in the IESO's view, any actions or market rule amendments, in addition to those reflected in or underlying the MSP's recommendations, should be taken or initiated. In addition, your letter requests an update on the status of actions taken by the IESO in response to the recommendations set out in the MSP's previous monitoring report.

There were four recommendations in the November 2011 Report, numbered by the MSP as 2-1, 2-2, 2-3 and 3-1. Certain of these bear directly on matters under active consideration in the IESO's Electricity Market Forum, and in fact the Chair of the MSP took the opportunity to discuss their key market issues with the Forum early in its deliberations. As noted below, the Market Roadmap developed in the course of the Forum encompasses those issues. We expect the Forum Report to be published shortly, complete with associated timelines. The work envisaged is ambitious, and meeting the suggested timelines will be highly dependent on available resourcing. The resourcing level for the 2012-2014 business planning period has not yet been established. It is also the case that progress on these matters is not solely within the purview of the IESO – implementation will depend on further analysis, discussion and action by and amongst policy makers, regulators and industry participants.

The most recent MSP recommendations, and related recommendations from the previous report, are discussed below. A comprehensive listing of the status of recommendations from the current and previous report is appended. The status of recommendations from all prior MSP reports is regularly published on our website, and can be found on the IESO's surveillance page at: <http://www.ieso.ca/imoweb/marketSurveil/surveil.asp>.

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### Renewables Integration

MSP recommendations 2-1 and 2-3 address this matter.

*Recommendation 2-1, MSP Report for November 2010 – April 2011*

*The Panel recommends that the IESO publish the most current aggregate wind generation forecast information that is available. The published information should be updated on an hourly basis and should cover all future hours for which wind generation forecasts are available.*

IESO staff intend to discuss this recommendation with the MSP, as publishing the sometimes highly inaccurate aggregate of output forecasts submitted by wind generators may present a misleading picture of upcoming operations.

Meanwhile, the IESO is in the final stages of contracting for central wind and solar forecasting services that extend to all wind and solar facilities directly connected to the IESO controlled grid and all distribution connected facilities over 5 MW. This approach represents “best practice” in the industry, providing significantly better results than other approaches. We anticipate that this service will be calibrated to the point where quality forecasts are available to us by mid-2012. While integrating these forecasts fully into our automated tool sets is expected to take another year, we anticipate that publication of that data over several forecast timeframes could commence as early as Q3 2012. Updates will be available at regular intervals through stakeholder engagement SE-91 at: [http://www.ieso.ca/imoweb/consult/consult\\_se91.asp](http://www.ieso.ca/imoweb/consult/consult_se91.asp).

*Recommendation 2-3, MSP Report for November 2010 – April 2011*

*The Panel recommends that the IESO accelerate its efforts under Stakeholder Engagement (SE-91) to make wind generators dispatchable.*

The IESO continues stakeholder discussions through SE-91 to develop an enduring solution for the dispatch of variable generation. The target is to have wind dispatch fully integrated into our automated dispatch tool sets by late 2013. Meanwhile the IESO and the OPA have worked together to develop interim hourly dispatch proposals, and are awaiting guidance on certain associated policy questions identified in that regard.

### Intertie Scheduling Frequency

*Recommendation 2-2, MSP Report for November 2010 – April 2011*

*The Panel recommends that the IESO and the Electricity Market Forum investigate increasing the frequency with which interties are scheduled in order to improve market efficiency and price fidelity. In conjunction with any such increase, the IESO should explore parallel increases in the frequency of the forecasts of demand and the output from wind and other intermittent generation, as well as pre-dispatch schedules.*

This recommendation contemplates a significant change to the current market design. This will be considered together with the broader market evolution investigations, and associated timetable, envisaged by the Electricity Market Forum.

### Constraint Payments

MSP recommendation 3-1 of the recent MSP report expands on recommendation 3-3 of the previous report.

*Recommendation 3-1, MSP Report for November 2010 – April 2011*

*The Panel recommends that for the purposes of calculating constrained-on CMSC payments made to dispatchable loads that have bid at a negative price, the IESO should set a new replacement bid price that does not take into account any global adjustment charges. This new price would be higher than the current replacement price of -\$50/MWh.*

*Recommendation 3-3, MSP Report for May 2010 – October 2010*

*As part of its “market road map” process, the IESO should work with stakeholders to examine the feasibility of replacing the two-sequence design with locational pricing, variable pricing for dispatchable resources or other alternatives.*

As stated in our previous letter, we accept the latter recommendation and we anticipate that the examination of alternatives to the two-sequence design will be covered by the Market Roadmap.

As to recommendation 3-1 in the current report, the IESO has previously placed limits on the congestion management settlement credit (CMSC) settlement value for both exports and dispatchable loads. We agree with the MSP assessment in the current report and have already initiated a change to the current replacement price of -\$50/MWh. The target for completion is March 2012.

### Generation Cost Guarantees (GCGs)

MSP recommendation 3-4 of the previous report addresses this matter in three parts.

*Recommendation 3-4, MSP Report for May 2010 – October 2010*

- (i) The IESO should resume work on Stakeholder Engagement 84 regarding elimination of self-induced CMSC payments for ramping down generators and should amend the Generation Cost Guarantee program to ensure that all guaranteed costs are considered as part of the dispatch optimization.*
- (ii) On an interim basis until after-the-fact start-up cost submissions are capped by generator offer prices and CMSC payments to ramping down generators are eliminated, the IESO should amend the Generation Cost guarantee program to limit generators to one start-up cost guarantee submission per day unless the IESO requests a second start during a day.*

(iii) *The IESO should re-examine whether the GCG program continues to provide a net benefit to the market once the Enhanced Day-Ahead Commitment (EDAC) process is implemented or as part of its "Market Roadmap" process.*

Regarding the self-induced CMSC payments made to ramping down generators, the IESO will continue to assess the impact of the MSP monitoring document *Generator Offer Prices Used to Signal an Intention to Come Offline* issued on August 19, 2011 – which the IESO believes to be the most effective action to address this matter. The IESO will also ensure through an audit process that the costs recovered from a second start-up are limited to a level that reflects that the unit is already hot. At the same time, the IESO moved ahead with solutions to the remaining self-induced generator CMSC scenarios considered under SE-84. These solutions have been implemented through market rule amendment MR-00252-R00 which has been approved by the IESO Board with an effective date of December 23, 2011.

The EDAC process was implemented on October 12, 2011 and considers all costs in the optimization of the day-ahead commitment of resources. As suggested by the MSP, upon gaining experience with the operation and real-time implications of EDAC, the IESO intends to re-examine the generation guarantee programs.

Please do not hesitate to contact me should you have any additional questions on these matters.

Yours truly,

A handwritten signature in blue ink, appearing to read 'Paul Murphy', with a large, sweeping flourish extending to the right.

Paul Murphy

Attach.

MSP Report for the period from November 2010 to April 2011 (released November 2011)	
Recommendation	IESO Response
<p><b>Recommendation 2-1</b></p> <p><i>The Panel recommends that the IESO publish the most current aggregate wind generation forecast information that is available. The published information should be updated on an hourly basis and should cover all future hours for which wind generation forecasts are available.</i></p>	<p>"IESO staff intend to discuss this recommendation with the MSP, as publishing the sometimes highly inaccurate aggregate of output forecasts submitted by wind generators may present a misleading picture of upcoming operations.</p> <p>Meanwhile, the IESO is in the final stages of contracting for central wind and solar forecasting services that extend to all wind and solar facilities directly connected to the IESO controlled grid and all distribution connected facilities over 5 MW. We anticipate that this service will be calibrated to the point where quality forecasts are available to us by mid-2012. While integrating these forecasts fully into our automated tool sets is expected to take another year, we anticipate that publication of that data over several forecast timeframes could commence as early as Q3 2012. Updates will be available through stakeholder engagement <a href="#">SE-91</a>."</p>
<p><b>Recommendation 2-2</b></p> <p><i>The Panel recommends that the IESO and the Electricity Market Forum investigate increasing the frequency with which interties are scheduled in order to improve market efficiency and price fidelity. In conjunction with any such increase, the IESO should explore parallel increases in the frequency of the forecasts of demand and the output from wind and other intermittent generation, as well as pre-dispatch schedules.</i></p>	<p>"This recommendation contemplates a significant change to the current market design. The IESO will consider this recommendation together with the broader market evolution investigations, and associated timetable, envisaged by the Electricity Market Forum."</p>
<p><b>Recommendation 2-3</b></p> <p><i>The Panel recommends that the IESO accelerate its efforts under Stakeholder Engagement (SE-91) to make wind generators dispatchable.</i></p>	<p>"The IESO continues stakeholder discussions through <a href="#">SE-91</a>: Dispatch Technical Working Group (DTWG) to develop an enduring solution for the dispatch of variable generation resources. DTWG meetings are expected to be held between November 2011 and May 2012. The target is to fully integrate 5-minute dispatch for wind and solar directly connected to the transmission grid into our automated dispatch tool sets by late 2013. Meanwhile the IESO and the OPA have worked together to develop interim hourly dispatch proposals, and are awaiting guidance on certain associated policy questions identified in that regard."</p>



<p><b>Recommendation 3-1</b>  <i>The Panel recommends that for the purposes of calculating constrained-on CMSC payments made to dispatchable loads that have bid at a negative price, the IESO should set a new replacement bid price that does not take into account any global adjustment charges. This new price would be higher than the current replacement price of - \$50/MWh.</i></p>	<p>"The IESO agrees with this recommendation and has previously initiated this change, with a proposed target of completing the revision for the IESO's March 2012 baseline."</p>
<p><b>MSP Report for the period from May 2010 to October 2010 (released March 2011)</b></p>	
<p><b>Recommendation</b></p>	<p><b>IESO Response</b></p>
<p><b>Recommendation 3-1</b>  <i>The IESO should not remove imports curtailed to address SBG conditions from the unconstrained market schedule. This could be accomplished by changing how the ADQH code operates with respect to the market schedule.</i></p>	<p>"There are several issues regarding the appropriate market price during curtailment of intertie transactions due to adequacy. The IESO's current practices are based on the belief that the resultant price impacts of curtailed transactions do not represent a distortion. Not removing these transactions from the unconstrained algorithm would also result in further differences between the constrained and unconstrained sequences, which would create an additional uplift burden for Ontario consumers and would be opposite in direction from the IESO's goal of aligning pricing with actual dispatch. However, the IESO is sensitive to counter-intuitive prices and as stated previously will consider this within the policy review of SE-67, currently assigned a low priority."</p>
<p><b>Recommendation 3-2</b>  <i>Where there are transfer capability reductions outside Ontario that prohibit power flow out of or into Ontario, the IESO should not make CMSC payments. Possible methods might include but not limited to: removing the related offers/bids, reducing intertie transfer capability to zero, or establishing a mechanism for clawback of CMSC payments.</i></p>	<p>"The IESO agrees that CMSC payments for external congestion are inappropriate. Furthermore, removing these transactions from the market schedule will result in a more accurate price signal to the market. There are several options that can be looked at in order to resolve this issue, some having negative consequences.</p> <p>The option of reducing the intertie capability will send incorrect congestion signals by moving external congestion to congestion on the intertie. This congestion can create possible shortages in the Transmission Rights market and prevent other efficient trade from occurring.</p> <p>A second option could see the removal of offers/bids from the pre-dispatch sequence. While this method would address transactions receiving CMSC payments for external reasons, it may</p>

	<p>inappropriately remove CMSC payments for transactions legitimately constrained off for internal limitations (deserving of CMSC).</p> <p>Another option would be to clawback the inappropriate CMSC. This however, is not a trivial task as they would require complex, resource intense manual assessments. The complexity is driven by knowing which limitation – either internal or external – drove the two schedules to diverge, thus generating CMSC – our tools do not recognize this.</p> <p>The final option, and the IESO preference, would be to address the root of the issue: participant behaviour. Recognizing the inability to flow in the external market as a result of the lack of transmission service, participants should remove their dispatch data when conditions permit. The Market Assessment Unit should continue to monitor and take appropriate action as required to address these issues as they occur. We believe this action would be best suited to resolve such issues and mitigate the reoccurrence in the future.”</p>
<p>Recommendation 3-3</p> <p><i>As part of its "market road map" process, the IESO should work with stakeholders to examine the feasibility of replacing the two-sequence design with locational pricing, variable pricing for dispatchable resources or other alternatives</i></p>	<p>“The IESO accepts this recommendation and acknowledges the Ontario Energy Board’s support for examining alternatives to replace the two-sequence design. This recommendation is a fundamental change to current market design and would require broad stakeholder consultation. The IESO has initiated the Electricity Market Forum to consider the future role and development path for the IESO-administered markets. The Electricity Market Forum is expected to produce a final report which will be made public prior to year-end, 2011.”</p>
<p>Recommendation 3-4(i)</p> <p><i>The IESO should resume work on Stakeholder Engagement 84 regarding elimination of self-induced CMSC payments for ramping down generators and should amend the Generation Cost Guarantee program to ensure that all guaranteed costs are considered as part of the dispatch optimization.</i></p>	<p>“The IESO will continue to assess the impact of the MSP monitoring document providing guidance to generators regarding offer prices for signalling an intention to come offline – which the IESO believes to be the most effective action to address this matter. At the same time, the IESO has moved ahead with solutions to the remaining self-induced generator CMSC scenarios considered under SE-84. The solutions have been implemented through market rule amendment <u>MR-00252-R00</u> which has been approved by the IESO Board with an effective</p>

	<p>date of December 23, 2011.</p> <p>Consistent with this recommendation, the Enhanced Day-Ahead Commitment (EDAC) process was implemented on October 12, 2011 and considers all costs in the optimization of the day-ahead commitment of resources.</p> <p>Upon gaining experience with the operation of EDAC, the IESO intends to conduct a review of the current real-time Generation Cost Guarantee program."</p>
<p>Recommendation 3-4(ii)</p> <p><i>On an interim basis until after-the-fact start-up cost submissions are capped by generator offer prices and CMSC payments to ramping down generators are eliminated, the IESO should amend the Generation Cost Guarantee program to limit generators to one start-up cost guarantee submission per day unless the IESO requests a second start during the day.</i></p>	<p>"The IESO's concern with this recommendation is that limiting generators to one start-up cost guarantee per day may prevent the use of the least-cost option later in the day simply because the generator has operated earlier in the day. Instead, the IESO will ensure that the costs recovered from any second start-up are limited to a level that reflects that the unit is already hot and would have both reduced start-up time and a shorter minimum run time. In accordance with the market rules the facility data specified by the market participant should reflect the technical requirements of the facility, and is auditable if the market participant receives a generation cost guarantee on the basis of this data.</p> <p>This recommendation will be investigated as part of the review of the real-time Generation Cost Guarantee Program which will be undertaken once experience is gained with the operation of the Enhanced Day Ahead Commitment (EDAC) process."</p>
<p>Recommendation 3-4(iii)</p> <p><i>The IESO should re-examine whether the GCG program continues to provide a net benefit to the Ontario market once the Enhanced Day-Ahead Commitment (EDAC) process is implemented or as part of its "Market Roadmap" process.</i></p>	<p>"The Enhanced Day-Ahead Commitment (EDAC) initiative was implemented on October 12, 2011. Upon gaining experience with the operation of EDAC, the IESO intends to re-examine the real-time GCG program."</p>