

Notes from the 41st Meeting of the Market Pricing Working Group

Wednesday May 9, 2007

8:30 a.m. – 2:00 p.m.

Monte Carlo Inn, Mississauga

FINAL

Attendees:

<u>Name</u>	<u>Company</u>	<u>Name</u>	<u>Company</u>
Alpajaro, Peter	Bruce Power	Chase, Maia	IESO
Bell, Brian	Ontario Power Generation	Finkbeiner, Darren	IESO
Bellavance, Eric	Hydro-Quebec Production	He, Andy	IESO
Bellissimo, Vittoria	Ontario Power Authority	Kozlik, Ken (chair)	IESO
Cary, Rob	Consultant (representing Sithe Power)	Loughren, Chris	IESO
Chung, Lam (tele-conference)	Manitoba Hydro	MacKenzie, John	IESO
Cipolla, Jim	Northland Power	Peerbocus, Nash	IESO
Degelman, Cara	Abitibi Consolidated	Rivard, Brian	IESO
Duzy, Margaret	TransCanada Energy	Savage, Jessica	IESO
Forsyth, Dave	Bowater Cdn Forest Products	Sivasundaram, Lavan	IESO
Hassan, Fred	ERA (Representing Power Workers Union)		
Hunt, Robert	Optimal Technologies		
Kerr, Paul	Coral Energy		
Leung, Linda	Ontario Power Generation		
Lung, Gene	Direct Energy		
Narang, Arun	Kinectrics		
O'Connor, Sandy (tele-conference)	TransAlta		
Quenneville, Alain	Abitibi Consolidated		
Tintor, John	Aquilon		
Toma, Tony	Wecast Industries		
Viljakainen, Bert	Bowater Canadian Forest Products		
Wu, Lawrence	TEAM Limited		

Item #1: Administration

- a. Review Draft Notes from March 19, 2007 meeting (MPWG #37) and April 3, 2007 meeting (MPWG #38)

Member Questions, Comments and Discussion

- None

Next steps:

- The draft meeting notes shall also be reviewed at the repeat MPWG meeting before being posted as “final”. Refer to Updates below for details on the repeat meeting.

- b. Review Action Items

Chris Loughren (IESO) proposed that the following action items be closed:

- AI 33-2: IESO to advise MPWG why intertie nodal shadow prices are not included in the shadow price analysis.

IESO Response: in real-time, offer prices of import transactions scheduled through pre-dispatch are set to -\$2000. Therefore real-time intertie nodal shadow prices would not be an indication of the actual real-time locational price.

- AI 38-1: IESO to confirm that at the October 6th, 2006 meeting the Working Group agreed to defer further work on the issue of intertie transactions setting real-time price until the DAM design work is completed.

IESO Response: the notes from the October 6th meeting confirm that further work be deferred.

With respect to AI 36-2 (Do other electricity market and system operators use peak or average demand forecasts?), the New York uses peak demand forecasts. The IESO is continuing to follow-up with other electricity markets in the north-east.

Member Questions, Comments and Discussion

- Agree to closing action items AI 33-2 and AI 38-1.
- With respect to the use of peak vs. average demand forecasts in other markets (AI 36-2), information on the demand forecasts used for price determination is also required.

- c. Updates

Ken Kozlik (IESO) provided the following updates:

- Ramp Rate Multiplier Issue (MR-00331)

AMPCO has filed an appeal and a request for stay of implementation of MR-00331 with Divisional Court. IESO implementation of MR-00331 is on hold pending the Court decision on the request for stay of implementation.

- **Day-Ahead Market (DAM)**

The IESO held an open stakeholder session on the Day-Ahead Market on Wednesday April 11, 2007. The IESO will be following up with on-on-one meetings with individual stakeholders over May and June. The IESO expects to be making a recommendation to the IESO Board in the fall of 2007. The IESO is revising the stakeholder engagement plan to reflect these developments.

- **Other**

Several people who normally attend MPWG meetings were not able to attend the meeting today due to a meeting of Industrial Gas Users Association. Therefore, the IESO will repeat today's meeting, likely as a web-cast, at a date later in May. The IESO will announce the date, venue and arrangements as soon as possible.

At the MPWG meeting scheduled for June 7, 2007, the IESO has invited Michael Trebilcock to present a paper on cost-benefit analysis for the electricity market. The IESO will publish the paper as soon as it is finalized and send a web-link to MPWG members. The IESO expects that many people outside of the MPWG will be interested in Mr. Trebilcock's paper and so will invite others to attend the June 7th meeting and waive the limit of 2 people per company.

In response to a question regarding the status of the Market Surveillance Panel's concerns regarding OPA initiatives, the IESO advised that:

- a. The IESO has asked the MSP and OPA to discuss initiative design concerns; and
- b. The IESO is working with the OPA on integration of the OPA initiatives into the market.

Member Questions, Comments and Discussion

- Information on integration of the OPA initiatives into the market is important and should be available to the MPWG.

Item #3: Export Elasticity – Behavioural Response to Market Events

Nash Peerbocus (IESO) gave a presentation "Behavioural Responses to Market Events" (refer to published presentation and related papers):

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20070509-Behavioural-Responses-to-Market-Events.pdf

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20070509-Event-Analysis.pdf

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20070509-Export-Elasticity-Estimate.pdf

Member Questions, Comments and Discussion

- a. Will the IESO also conduct an analysis of import and domestic consumer response to market events?
IESO response: yes.
- b. A consumer noted that domestic industrial consumer response was important, even with the OPG rebate and global adjustment, as strong incentives remain to shift consumption from high priced periods to low priced periods. The OPG rebate and global adjustment are based on total monthly consumption regardless of the time of consumption. Consumers can still realize energy cost savings by shifting consumption from high priced periods to low priced periods while maintaining their OPG rebate and global adjustment position.
- c. In response to questions regarding the event analysis, the IESO provided the following points of clarification:
- The duration of the nuclear forced outage events studied was from 6 hours to 14 days.
 - Planned outages would be recognized in pre-dispatch and other resources scheduled (imports, other suppliers) to replace the unit on outage.
 - Event analysis cannot attribute causality of a response, it can only indicate if there is a response. Event analysis can quantify the response relative to the pre-event baseline trend.
 - Regional arbitrage, over time, removes anomalous or transient price differences between markets.
 - It is possible, though unlikely, that exports could be supplied by Ontario dispatchable loads reducing consumption. The energy bid price of Ontario dispatchable loads is typically higher than export bid prices.
 - Intertie congestion is not a significant factor as it occurs ~4% of the time.
 - It is expected that the steady-state price differentials between markets would be the same before and after a nuclear forced outage. This hypothesis would require further analysis.
- d. A generator suggested that short duration forced outages should not be included in the event analysis. Market participants would not have time to be aware of such an outage, then respond and impact the market before the outage is over.
- e. In response to questions regarding the econometric analysis, the IESO provided the following points of clarification:
- An elasticity of ~5% is significant. In other words, exporters are very sensitive to the HOEP. By comparison, industrial loads have an elasticity of 0-4%, excluding the pulp and paper industry which tends to have an elasticity between 6% and 10%.
 - A log-log export demand function was used to capture the dynamics between price and demand consistent with theoretical economic expectations.

- Assessing domestic consumption response to market events requires an understanding of the business drivers for domestic electricity consumption.
 - The analysis provides insights into export volume changes caused by changes in the Ontario price relative to a constant price for the north-west New York market.
 - One cannot invert the elasticity i.e. for a given change in exports, infer a resulting change in HOEP.
 - The econometric analysis did not consider specific events. Rather it examined monthly averages of HOEP and exports. Hourly analysis was not possible due to the increased complexities. On-peak vs. off-peak analysis was done.
 - Production cost modelling could be used in conjunction with behavioural response models to gain a better understanding of overall response to price changes.
 - While the event analysis indicates that the New York price does change in response to a forced nuclear outage, after about 2 hours, the effect has been arbitrated away. From this one should not infer that the level of exports from Ontario to New York has an impact on New York prices.
 - The IESO is studying the impact of changes in the transmission export fee.
 - It is appropriate to “look back” to determine if market changes, such as the move to 3x ramp rate result in changes to the export elasticity. The risk preference of exporters may change with the 3x ramp rate change.
- f. A generator questioned whether econometric analysis could be used to show convergence between a day-ahead market and a real-time market.
IESO response: this can be done.

Next steps:

- a. IESO to provide MPWG with on-peak and off-peak export elasticity analysis results (refer to action item AI 41-1).

Item #3: Sector Meetings to Review Positions on Pricing Issues

John MacKenzie (IESO) led a review and discussion of the draft notes of the sector meetings and proposed next steps (refer to published document):

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20070509-Behavioural-Meeting-Results-Next-Steps.pdf

Member Questions, Comments and Discussion

- a. Generators expressed the following concerns regarding the proposal for sector specific education sessions.
- Notes from such sessions would be filtered twice: once by the person writing the notes and once by the person reading the notes. Hearing comments first-hand is more efficient in achieving understanding.
 - Not clear when sectors would be able to provide comments on the positions of other sectors.

- Sector specific meetings will delay progress on issue resolution.
- b. Others supported sector specific meetings provided there are also open meetings for all to attend and discuss issues and positions. It is also important to have issue work plan schedules with decision milestones and the IESO commitment to meet that schedule. The recent IESO stakeholder engagement on Prudential Requirements (SE-23) was cited as an effective example of individual meetings followed by open meetings, as well as establishing and adhering to a work schedule.
- c. Generators also asserted that the IESO should be informing the MPWG of its opinion on issues and priorities early on in discussions.

Next steps:

- IESO to investigate using the Consumers Forum as the means to have consumer sector education sessions rather than having MPWG sector specific sessions (refer to action item 41-2).

Item #4: Operating Reserve Initiatives Resulting from NPCC Changes
Jessica Savage (IESO) presented an update on the operating reserve initiatives and led a discussion of the proposed plan.

Member Questions, Comments and Discussion

- a. The generic issues should be addressed before making any further changes to the operating reserve market. Such changes may compound existing problems in the market. The IESO asserted that the market changes should be considered in light of current market situation and IESO practice. The IESO also asserted that resolution of some of the generic issues would likely require a very broad and lengthy stakeholder consultation. Such consultations and potential for long-term market changes, should not prevent immediate improvements from being considered.
- b. When questioned by a consumer as to how the operating reserve initiatives could compound existing problems, a generator stated that the initiatives would increase reliance on one-time dispatch of domestic resources not scheduled to provide operating reserve. The IESO countered this assertion stating that the IESO already uses operating reserve from its neighbours under the NPCC Shared Activation of Reserve (SAR) program. Under the SAR program, the IESO can and does activate SAR for 50% of the contingency. This activated amount is typically much greater than the 100 MW accounted for under the Regional Reserve Sharing (RRS) program. In other words the IESO may account for 100 MW in the RRS program, but typically activates much more than that from neighbouring jurisdictions. The RRS program does not affect the amount that can be activated under the SAR program, and therefore should have no affect on internal activation or one-time dispatch. The 100 MW RRS is recognition that the IESO is relying on and using neighbouring reserve resources. In addition to this, the

utilization of one-time dispatch is not dependent on the resources selected in the OR schedule so the frequency of use will not change.

- c. A generator stated that any cost-benefit analysis for initiatives that reduce the synchronized reserve market in size or value should consider the probable action that generators may not invest in establishing or maintaining the ability to operate in condense mode and provide synchronized reserve.
- d. The IESO provided the following clarifications regarding current practice:
 - When issuing an operating reserve activation, the IESO reduces the operating reserve requirement by the size of the contingency, not the amount of operating reserve activated;
 - The guideline for issuing a one-time-dispatch vs. an operating reserve activation is 300 MW: below 300 MW, the IESO would typically use one-time dispatch; above 300 MW, the IESO would typically use an operating reserve activation.
- e. The IESO, in response to a request to express its opinion regarding these initiatives, stated that it believes, intuitively, that the initiatives would improve market efficiencies. However, the IESO also stated that the efficiency and cost-benefit analyses must be done to determine whether there would be efficiency improvements.

Item #5: Peak vs. Average Pre-Dispatch Demand Forecast

Chris Loughren (IESO) gave a presentation on pre-dispatch peak vs. average demand forecast issue and proposed work plan (refer to published presentation):

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20070509-Pre-Dispatch-Demand-Forecasting.pdf

Member Questions, Comments and Discussion

- a. Further data and explanation is necessary to understand the differences between peak and average, forecast and actual, the drivers for those differences and the consequences of changing.
- b. A generator asked what flexibility the IESO had in considering using an average forecast in some hours. There is a perceived flip-flop of the IESO's historical position on whether the use of average forecast for some hours would be acceptable from a reliability perspective.
- c. The following aspects of market efficiency should be examined:
 - CMSC and IOG payments resulting from use of peak forecast
 - Increased inefficient exports resulting from use of peak forecast
 - Implied wheeling through transactions

Item #6: Other Business

a. March 2007 Pricing Events

Chris Loughren (IESO) presented the March 2007 pricing events report (refer to published presentation):

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20070509-March-Pricing-Events.pdf

Member Questions, Comments and Discussion

- There was a recent hour when market hourly uplifts were ~10 \$/MW. The IESO staff will follow-up.

b. MPWG Forward Agenda

John MacKenzie (IESO) presented the draft MPWG Forward Agenda April 2007 – March 2008 (refer to published document):

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20070509-Forward-Agenda.pdf

Member Questions, Comments and Discussion

None.

c. Next Meeting – June 7, 2007

Action Items

- **AI 33-1: IESO to include a review of the definition of allocative and dynamic efficiencies on agenda of future MPWG meeting – preferably the November 3rd 2006 meeting.**
Status: open.
- **AI 33-2: IESO to advise MPWG why intertie nodal shadow prices are not included in the shadow price analysis.**
Status: closed. Refer to discussion under agenda item 1(b).
- **AI 34-5: IESO to report back at December MPWG meeting on peak vs average efficiencies and price impact analysis.**
Status: open. Only “gross inefficiencies” analysis presented and discussed at December 2006 meeting.
- **AI 35-1: IESO to issue final 2007 schedule of MPWG meetings.**
Status: Closed. IESO issued 2007 schedule 7 Dec 06.
- **AI 36-1: IESO to determine at what level of scheduling of Control Action Operating Reserve would the IESO have reliability concerns.**
Status: open.
- **AI 36-2: Do other electricity market and system operators use peak or average demand forecasts?**

Status: open. New York ISO uses peak demand forecast. IESO is following up with other markets in the north-east. Information on the demand forecasts used for price determination is also required.

- **AI 38-1: IESO to confirm that at the October 6th, 2006 meeting the Working Group agreed to defer further work on the issue of intertie transactions setting real-time price until the DAM design work is completed.
Status: closed. Refer to discussion under agenda item 1(b).**
- **AI 38-2: OPG member to discuss with IESO staff additional gross efficiencies analysis on the peak vs average demand forecast issue.
Status: open.**
- **AI 41-1: IESO to provide MPWG with on-peak and off-peak export elasticity analysis results.
Status: open.**
- **AI 41-2: IESO to investigate using the Consumers Forum as the means to have consumer sector education sessions rather than having MPWG sector specific sessions.
Status: open**