

Notes from the 46th Meeting of the Market Pricing Working Group

Thursday December 6th, 2007 8:30 a.m. – 12:00 p.m.

Toronto Congress Centre, 655 Dixon Road, Toronto

FINAL

Attendees

<u>Name</u>	<u>Company</u>	<u>Name</u>	<u>Company</u>
Abdelnour, Francois	IVACO	Chase, Maia	IESO
Bell, Brian	Ontario Power Generation	Lukan, Paula	IESO
Bellissimo, Vittoria	Ontario Power Authority	MacKenzie, John	IESO
Cary, Rob	Sithe Power; Cardinal Power	Radik, Rostik	IESO
Chua, Soon	Direct Energy	Rivard, Brian	IESO
Degelman, Cara	Abitibi Consolidated	Savage, Jessica	IESO
Dumais, Dan	Xtrata Nickel	Wilbur, Bill	IESO
Erickson, Tracy	Brookfield Power		
Hunt, Robert	Optimal Technologies		
Hunter, Kelly	Manitoba Hydro		
Kuriychuk, Mike	Pathchoice Energy Consulting		
Lapierre, Dan	Brookfield Power		
Leung, Linda	Ontario Power Generation		
Loughren, Chris	Bruce Power		
Kerr, Paul	Shell Canada		
Mei, Sam	AMPCO		
Selesse, Stephanie	Brookfield Power		
Yang, Bun Li	E4		

Please refer to documents for each agenda item for this meeting, published on the IESO public web-site at the following location:

http://www.ieso.ca/imoweb/consult/mep_mp.asp

Item #1: Administration

Brian Rivard (IESO) reviewed the agenda and no changes were made to the agenda.

a. Review Notes from October 29th, 2007 Meeting (MPWG 45)

Member Questions, Comments and Discussion

- Correct acronym error on page 6 – ‘FEFC’ should be ‘FERC’
- Correct attendance list.
- Add the following report back to action item 45-3:
“Simple numerical examples of DR2 and DR3.”

Next steps

- IESO to revise meeting notes as requested and post as final.

b. Review of Action Items

- Action items 33-1 and 45-3

Brian Rivard (IESO) presented a summary of member feedback on the proposed definitions of economic efficiencies. Refer to the following documents published on the IESO public web-site:

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071206-AI-45-3.pdf

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029_item1b_AI_33-1.pdf

With respect to the stakeholder comment regarding “rules used in determining pricing logic”, the IESO noted that such rules would need to be considered in any future multi-interval pricing discussions, but that changes to the proposed price definitions were not required at this time.

Member Questions, Comments and Discussion

- A generator suggested that shadow prices and multi-interval optimization (MIO) prices are determined by the existing pricing logic rules; the fact that these prices are not used for settlements renders those pricing rules less important. Any study of changes that would use those prices for settlement purposes would need to consider the issue of pricing rules. Examples of such changes would include location marginal pricing for intertie transactions (MPWG issue #40).
- An intertie trader, while agreeing with the reduced importance of the pricing methodology, noted that that market participants use shadow prices and MIO prices to get indication of expected dispatch.
- A generator suggested that the definition of price should capture the notion of “reasonably understandable” or transparency e.g. that market participants should be able to look back and, based on system and market conditions, conclude that the actual prices were intuitive.

- A member suggested that in times of system stress, when the IESO takes action to maintain reliability, there is higher probability that prices would be less transparent. The results of such IESO actions could show up as uplift charges rather than in energy prices.
- The definition of productive efficiency was clarified in that it meant that available inputs were used in the least cost manner.

Next steps

- IESO to consider stakeholder input and finalize definitions.
- Action items 33-1 and 45-3 closed.

Member Questions, Comments and Discussion - General

- Members noted that many action items have been open for a long time. Members requested that the IESO include target completion dates for all action items.

Next steps

- IESO to include target completion dates for action items.

c. Updates

Brian Rivard (IESO) provided the following updates:

- **Issue #38: Treatment of Shared Activation of Reserve**
At the February 7th, 2008 meeting of the MPWG, the IESO will present its analysis and recommendations regarding changing the treatment of Ontario receiving Shared Activation of Reserve (SAR). The analysis will include size and frequency of Ontario receiving SAR and the price impacts of changing the treatment. The IESO will also report on whether the treatment of Ontario providing SAR and selling Emergency Energy should be reviewed or changed.
- **Issue #4: Use of 12x Ramp Rate in the Dispatch Unconstrained Algorithm**
In March 2008, the IESO will conduct and report on simulations of the impact of the change from 12x ramp rate to 3x ramp rate. The simulations will include factoring in export elasticity. In September 2008, the IESO will conduct and report on further simulations as well as an econometric analysis of the impact of the change from 12x ramp rate to 3x ramp rate. The IESO will provide its final assessment of the ramp rate impact to stakeholders in March 2009.
- The revised schedule for 2008 MPWG meetings was reviewed.
- The IESO expects that the next Market Surveillance Panel Market Monitoring report to be published within a few weeks. There would then be a review of the report at the February 7th, 2008 meeting of the MPWG.

Member Questions, Comments and Discussion

- None.

d. Pricing Event Reports

Rostik Radik (IESO) presented pricing event reports for August, September and October 2007. Refer to documents published on the IESO public web-site at the following locations:

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029-Aug2007_Pricing_Events.pdf

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029-Sep2007_Pricing_Events.pdf

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071206-Oct2007_Pricing_Events.pdf

Member Questions, Comments and Discussion

- A generator suggested that market prices for 2007 seem low compared to previous years. A consumer responded that while market prices may be dropping, other charges such as the OPA Global Adjustment are increasing so the effective price to consumers is actually going up. Another generator also suggested that the value of the Canadian dollar and inter-market arbitrage were also placing downward pressure on Ontario market prices.
- A generator suggested that the relationship of natural gas prices to electricity prices now seems counter-intuitive. An intertie trader responded that if one considers OPA generation contracts and the Global Adjustment, the gas-electricity price relationship is intuitive.
- A generator expressed concern that the growing energy production of wind-powered generation is placed “at the bottom of the stack” and thus depressing real-time market prices. An intertie trader also noted that the seasonal wind pattern (i.e. higher winds in spring and fall seasons) contributed to lower market prices in those shoulder seasons.
- Members requested that the IESO report on the total effective energy price including Global Adjustment and OPG rebates. That information may be already reported in the IESO monthly market summaries and the Market Surveillance Panel market monitoring reports.
- A generator requested a discussion of the impact of the Global Adjustment on demand response, while an intertie trader requested a discussion of the impact of the Global Adjustment on imports.

Item #2: 2008 Work Priorities and Performance Measures

John MacKenzie (IESO) led a review and discussion of the updated MPWG issues list and 2008 work priorities and performance measures. Refer to the following documents published on the IESO public web-site:

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071206-issue-list.pdf

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071206-AI-45-1.pdf

Member Questions, Comments and Discussion

- Issue #4 (ramp rate) description should be updated as it currently refers to OEB approval as “upcoming” when the approval has already been granted.
- Several members expressed concern that establishing the 2008 MPWG priorities and performance measures did not involve stakeholder input. Concern also expressed that there was not apparent criteria for establishing MPWG priorities.
- Issue #40 (location pricing for imports and exports) may have legal as well as technical and market implications. Issue #31 (MIO pricing methodology) would have implications to Issue #40.
- The IESO clarified that the status of Issue #30 (Forecast of Real-Time Price) was “on hold” and that the ongoing work on the day-ahead model forecast of real-time HOEP was part of the day-ahead mechanism initiative.
- One member stated that he agreed with the IESO establishing priorities for the MPWG on the basis of reliability and improving market efficiency. He asked why the three issues were chosen. The IESO responded that the three chosen issues were expected to have impacts on market efficiency.
- In light of the MPWG member concerns, the IESO requested that MPWG members provide written feedback to the IESO by December 21st, 2007 on the outstanding MPWG issues and 2008 priorities. The IESO would forward that feedback onto IESO senior management.

Next steps:

- MPWG members to provide written feedback to the IESO by December 21st, 2007 on the outstanding MPWG issues and 2008 priorities.

Item #3: Day-Ahead Model Forecast of Real-Time HOEP

Nash Peerbocus (IESO) gave a presentation on the additional analysis regarding the day-ahead econometric model forecast of real-time HOEP. Refer to the following presentation published on the IESO web site:

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071206-DA-price-model.pdf

Brian Rivard (IESO) advised the MPWG that the IESO would be issuing a stakeholder engagement plan in January 2008 regarding the model and the IESO role in forecasting market prices.

Member Questions, Comments and Discussion

- a. Members asked a number of clarification questions, to which the IESO made the following responses:

- The demand error is already factored into the model correlation coefficients.
 - The slopes of the lines on slide 3 of the presentation were important. A flatter slope was better as it indicated that the price forecast error was less sensitive to demand forecast error.
 - The day-ahead demand forecast appears to be less significant with respect to the HOEP forecast than other factors such as MISO and New York day-ahead prices.
 - The day-ahead demand forecast was a “peak” forecast while the real-time demand was an average hourly value.
- b. A generator questioned the results on slide 3 when it was clarified that the hour-ahead pre-dispatch price error (y-axis) was plotted against the day-ahead demand forecast error (x-axis). He suggested that the day-ahead demand forecast error would be greater than the hour-ahead demand forecast error. It would be more appropriate to plot the hour-ahead price forecast error against the hour-ahead demand forecast error. The IESO agreed to re-consider the analysis presented in light of these concerns.
- c. The IESO acknowledged that adjusting the model to forecast the hour-ahead pre-dispatch price may be feasible. The factors that influence the hour-ahead pre-dispatch price are likely similar to those factors that influence the real-time HOEP. However adjusting the model to forecast the Richview shadow price may be more difficult as there are likely very different influences on that price than the factors influencing the real-time HOEP. The former price is a constrained price and subject to influence by the physical characteristics and conditions of the IESO-controlled grid. The latter price is an unconstrained price. The IESO needs to better understand the need for the Richview price forecast before undertaking such work.

Next steps:

- IESO to re-consider the analysis of the price forecast error as a function of demand forecast error.

Item #4: Issue #9: Peak vs. Average Pre-Dispatch Demand Forecast

Jessica Savage (IESO) led a discussion of the draft stakeholder engagement plan SE-54. Refer to the following document published on the IESO web site:

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071206-se54-plan.pdf

Member Questions, Comments and Discussion

- a. Members asked a number of clarification questions to which the IESO made the following responses:
- An assessment of reliability impacts will be part of the analysis but the IESO is still considering the nature of that assessment. The SE-54 plan will be updated once the analysis is defined.

- The scope of the analysis to be conducted includes market efficiency impacts, reliability impacts and wealth transfers.
 - The analysis would quantify changes for use of an average demand forecast in the hour-ahead pre-dispatch demand forecast.
- b. An intertie trader asserted that a negative reliability impact would be the only reason for not changing from peak to average. A consumer countered that the decision to make such a change must consider market and reliability impacts.
- c. A generator requested that the IESO also analyse the impact of switching from peak to average in the Day-Ahead Commitment sequences and the three hour-ahead pre-dispatch sequences, as commitment decisions are made on the basis of those sequences. The IESO responded that a qualitative assessment of these two sequences may be all that is possible.

Next steps:

- The IESO is to revise the stakeholder engagement plan to explicitly identify reliability impact analysis.

Item #5: Issues #1 and 20

John MacKenzie (IESO) made a presentation on Issue #1 (Pre-Dispatch price Uncertainty) and Issue #20 (Treatment of Imports in a Congestion Pricing Regime). Refer to the following presentation published on the IESO web site:

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071206-review-issue1-20.pdf

Member Questions, Comments and Discussion

- Members agreed to change the status of Issue #1 to “on hold” and to close Issue #20.

Next steps:

- The IESO is to revise the MPWG issue Tracking Document accordingly.

Item #6: Issue #13: Control Action Operating Reserve

John MacKenzie (IESO) made a presentation on impacts of Control Action Operating Reserve (CAOR) for the period January to September 2007. Refer to the following presentation published on the IESO web site:

http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029_Issue_13-CAORPresentation.pdf

Member Questions, Comments and Discussion

- Several members suggested that scheduled CAOR was displacing market participant offers of operating reserve and that such displacing was inappropriate.

- There was discussion about what would be the efficient price of CAOR. A consumer noted that the original intent of the CAOR pricing was to achieve a scheduling frequency consistent with the IESO operator use of considering control actions as part of operating reserve prior to establishing the CAOR price curve. The actual CAOR scheduling frequency demonstrates that that intention has been realized. As an alternative suggestion, an intertie trader stated that CAOR should be priced at the average value of HOEP as that would represent an average opportunity cost for a hydro-electric supplier for providing operating reserve.
- Members suggested that the impacts and pricing of CAOR should be re-visited in late 2008.

Item # 7: Other Business

a. Stakeholder Issues

An intertie trader noted that the following issues:

- increasing wind generation and its lack of ramping and predictability is calling into question existing operating reserve requirements;
- change in Ontario supply mix from coal to natural gas and lower flexibility of the latter generation is also of concern; and
- the volatility and value of the forward price of natural gas.

A consumer noted the following issues:

- the lower flexibility of new supply options (natural gas-fired, wind) may make it more difficult for the IESO to match supply and demand.

An intertie trader suggested that market incentives for supplier operational flexibility (e.g. ramping, automatic generation control - AGC) are the most efficient means to achieve the desired flexibility.

A generator noted the following issues:

- a need to have a forecast of the HOEP and OPA Global Adjustment based on the Integrated Power System Plan;
- a market understanding the impact of the proposed OPA gas-fired peaking generation is also important;
- the following two initiatives appear to have fallen off the radar screen: load following service and lowering the AGC requirement; and
- the need for a broad based forum for dispatch issues such as a move to 15-minute dispatch, as erratic 5-minute dispatch is the number one issue for his company.

A member suggested that environmental impacts needed to be factored into dispatch and pricing decisions, especially as Ontario may keep coal-fired generation as an insurance policy.

In summary, members expressed concern over the unclear future of the industry and the IESO-administered markets.

Next meeting: Thursday February 7th, 2008.

Action Items

- AI 34-5: IESO to report back at December MPWG meeting on peak vs average efficiencies and price impact analysis.
Status: Open
Target Completion Date: April 2008
- AI 36-1: IESO to determine at what level of scheduling of Control Action Operating Reserve would the IESO have reliability concerns.
Status: Closed. Refer to presentation (slide 8) under agenda item 6.
- 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.
Target Completion Date: April 2008
- AI 43-2: IESO to follow-up with MPWG member regarding “weighting” of options that impact price versus uplifts within a cost-benefit analysis. Refer to discussion under agenda item #2 paragraph (a) of notes from July 19th, 2007 meeting.
Status: open
Target Completion Date: February 2008
- AI 44-2: IESO to provide the following information regarding administrative pricing: refresher on current market rules and practices, data and summary of administrative pricing events and causes, IESO work programs in place to address the causes.
Status: open. IESO has instituted the reporting of administrative pricing events as part of the Monthly Pricing Events reporting.
Target Completion Date: Q4 of 2008.

- AI 44-4: IESO to report on the use and impact of Shared Activation of Reserve and inadvertent energy.
Status: open. Refer to discussion under agenda item 2.
Target Completion Date: February 2008.
- AI 44-5: IESO to provide the working group with the scope of the LMP study being conducted under stakeholder engagement plan SE-25.
Status: open.
Target Completion Date: To be determined.
- AI 45-1: IESO to provide summary of MPWG member feedback on 2008 priority issues for discussion at the December 6th, 2007 MPWG meeting.
Status: Closed. Refer to discussion and documents published for Agenda item 2.
- AI 45-2: IESO to establish a MPWG meeting standing agenda item for Member Issues.
Status: Closed. Refer to Agenda item 7(a).
- AI 45-3: IESO to provide summary of MPWG member feedback on proposed definitions of efficiencies and price for discussion at the December 6th, 2007 MPWG meeting.
Status: Closed. Refer to discussion and document published for Agenda item 1(b).
- AI 45-4: IESO to report back to the MPWG on the following with respect to OPA DR programs:
 1. Should expected DR3 programs activations were used to consider generator and transmission outages?
 2. What planning and real-time information regarding these programs can be made public?
 3. Can the transparency of the triggering of these programs be improved?
 4. Define the rules for open and closed notification for the DR3 program.
 5. Are market rules needed to authorize the IESO role in the OPA DR programs?
 6. Simple numerical examples of DR2 and DR3 response.**Status:** open
Target Completion Date: To be determined