

Market Pricing Working Group Meeting #49



Notes of Meeting - FINAL

| Date held: May 16, 2008 | Time held: 9:00 a.m. to 12:30 p.m. | Location held: Toronto Congress Centre, Dixon Rd., Toronto, Ontario |
|---|--|--|
| Invited/Attended: | Company name: | Attendance Status: (A)ttended; (R)egrets; (S)ubstitute |
| Abdelnour, Francois | IVACO Rolling Mills | A |
| Bell, Brian | Ontario Power Generation | A |
| Bellavance, Erik | Hydro Quebec Energy Markets | A |
| Bellissimo, Vittoria | Ontario Power Authority | A |
| Cary, Rob | Sithe Power | A |
| Chase, Maia | IESO | A |
| Coulbeck, Rob | RBC Capital Markets | A |
| Degelman, Cara | Abitibi Consolidated | A |
| Duzy, Margaret | Transcanada Energy | A |
| Hannan, Usman | IESO | A |
| Harwood, Shane | Shell Energy | A |
| Huber, Devon | IESO | A |
| Hunt, Robert | | A |
| Kerr, Paul | Shell Energy | A |
| Leung, Linda | Ontario Power Generation | A |
| Lung, Gene | Direct Energy | A |
| MacKenzie, John | IESO | A |
| Maria, Gamal | IESO | A |
| Matsugu, Darren | Ontario Ministry of Energy | A |
| McCuaig, Paul | Powerex | A |
| Rivard, Brian (chair) | IESO | A |
| Robitaille, Dave | IESO | A |
| Savage, Jessica | IESO | A |
| Warren, Kim | IESO | A (agenda items 1 and 2) |
| Wu, Lawrence | TEAM ltd. | A |
| Yang, Bun Li | E4 | A |
| Scribe: John MacKenzie, IESO. Please report any corrections, additions or deletions to these notes to the following e-mail address: iesomarketpricingworkinggroup@ieso.ca | | |

All meeting material is available on the IESO web site at:
http://www.ieso.ca/imoweb/consult/mep_mp.asp

Item 1 - Administration

a) Review of Agenda

- No changes

b) Review of Notes from March 6, 2007 meeting (MPWG 48)

Members Questions, Comments and Discussion

- None

Next Steps

- IESO to post notes as final.

c) Review of Action Items

John MacKenzie (IESO) provided the following updates:

- AI 34-5: to be closed following discussion under agenda item 2;
- AI 36-2: target completion date changed to June 2008;
- AI 44-5: there is no published scope for the LMP study being conducted under SE-25 – action closed;
- AI 44-5: parts 2-5 to be closed following discussion under agenda item 4;
- AI 47-2: IESO implementing publication of supply cushion data; target completion date Q4 of 2008;
- AI 48-1: the IESO does not report reasons for administrative pricing events as part of the corporate performance measure reporting. Closed.
- AI 48-2: to be closed following discussion under agenda item 4;
- AI 48-3: DR3 program rules published March 31, 2008. Closed.
- AI 48-4: to be closed following discussion under agenda item 4;

Members Questions, Comments and Discussion

- None.

d) Updates

Brian Rivard (IESO) provided the following updates:

- Day-Ahead Forecast of Real-Time HOEP (SE-58): publication of the day-ahead forecast of real-time HOEP was endorsed by the IESO Board at its meeting in April. The IESO expects to start publication by the end of the summer 2008. This forecast is viewed as a temporary measure. The need for the forecast will be re-evaluated if and when a day-ahead market price or energy forward market price is implemented.

Members Questions, Comments and Discussion

1. Will the forecast methodology be “tuned” as experienced is gained and market conditions change?
IESO response: good idea to always improve the forecast methodology. The IESO expects that it will consult with the MPWG regarding such improvements and “tuning”.
 2. Why will it take the IESO until the end of summer to start publishing the forecast?
IESO response: the time is required to automate the forecasting and publication.
- Dispatch Issues (SE-61): The IESO is undertaking one-on-one discussions with market participants in order to determine the nature and scope of the issues to be addressed under this initiative. From these discussions, the IESO expects to define the issue(s) by the fall of 2008. The Director of Market Evolution within the IESO is leading this initiative.

Members Questions, Comments and Discussion

1. An intertie trader volunteered to take part in the one-on-one discussions. The IESO agreed to pass on the offer to the IESO staff undertaking the discussions.
2. A generator noted that other markets may have been faced with and addressed similar issues. Stakeholders with knowledge of other markets may be able to provide significant assistance in the defining and addressing the issues in Ontario. The IESO should take advantage of any applicable stakeholder knowledge in order to move this initiative forward efficiently.
3. A generator suggested that MPWG would be an effective stakeholder body for SE-61. At a minimum, the IESO should provide updates to the MPWG on SE-61 developments.

Item 2: Issue #9 – Peak versus Average Pre-Dispatch Demand Forecast

Jessica Savage (IESO) presented the results of the economic efficiency, cost-benefit and reliability impact analyses of using an average demand forecast in pre-dispatch rather than a peak demand forecast.

Members Questions, Comments and Discussion

1. In response to questions from MPWG members, the IESO provided the following points of clarification regarding the analysis and the results:
 - The change in total costs of meeting demand was used as a proxy for maximizing the gains from trade. The latter is the objective function for the dispatch scheduling optimizer (DSO).
 - Export elasticity is driven by the expectation of real-time HOEP, while the level of imports is dependent on pre-dispatch price.
 - The supply cushion data was the real-time supply cushion.
 - The 12-week sample was chosen as follows: one week for each month in 2006. The weeks chosen for January and August were the weeks in which the winter and summer peaks occurred. The weeks for the remaining ten months were chosen at random.

- For those situations where the supply cushion was below 5%, the IESO did not determine whether there was additional generation available beyond what was offered.
 - The IESO Market and System Operations group would define “demand significantly increasing”.
 - The IESO judges that there will be no significant change to CMSC payments overall, for as HOEP goes up, constrained-on payments would decrease and constrained-off payments would increase. It is a reasonable assumption that the decrease in constrained-on payments would offset the increase in constrained-off payments.
2. An intertie trader suggested that since a small percentage of imports receive an intertie offer guarantee (IOG) payments, the savings ascribed to reduced IOG payments may be over-stated.
 3. An intertie traders suggested that for those situations where the supply cushion was below 5%, and there was no additional generation available beyond what was offered, the use of average forecast in pre-dispatch would not have made any difference from the reliability perspective.
 4. In the discussion of the reliability impact assessment, MPWG members made the following key points:
 - The IESO should consider, and allow, market response to address reliability concerns. Effective market response can be achieved if there are correct price signals. Other markets that send correct price signals get the appropriate response both in real-time and the long term e.g. Alberta. Continued use of a peak demand forecast dampens the price signals.
 - There is an urgent need for the IESO to quantify and monetize reliability impacts of changes. Relying on subjective judgement is not appropriate. The limited analysis presented (i.e. changes to supply cushion) does not support the IESO position not to use the peak demand forecast in all hours.
 - The IESO should use the same demand forecast methodology in all hours. Using an average demand forecast in some hours and a peak demand forecast in other hours will introduce further discontinuity and distortion. Another member countered that publishing, in advance, the hours that are based on a peak or average demand forecast would provide greater transparency to the market. Currently, there are factors that result in hour to hour variations in demand that are not transparent to the market yet the market adapts to the changes, e.g. the change in MW associated with segregated mode of operation.
 - Criteria for determining in which hours an average demand forecast would be used rather than the peak demand forecast should be as non-judgemental as possible, and must be transparent to the market.
 - IESO support from a reliability perspective is essential for any market change to move forward.
 5. In response to the MPWG member concerns with respect to the reliability impact assessment, the IESO made the following points:
 - The IESO has direct experience, prior to market launch, operating the power system using an average demand forecast in pre-dispatch, and there were consistent reliability problems.
 - The IESO is obligated, under applicable reliability standards, to ensure there are adequate resources available to meet the peak demand.
 - The data set (the 12-week sample) is too small to make a comprehensive assessment of the reliability impacts. The IESO is willing to use an average demand forecast in some hours as a first

step, and based on the experience gained, consider using an average demand forecast in more hours.

- Quantification and monetization of the reliability impact of potential changes to the market as well as quantification of market response to such changes is needed. The IESO is initiating work to address these issues.
6. In the discussion of the wealth transfer impacts, MPWG members made the following key points:
- A generator noted that it is more correct to refer to the wealth transfer impacts as a re-allocation of wealth. In other words, currently there is a wealth allocation from suppliers to consumers equal to \$17 million. There is a need for stakeholders and the IESO to understand that the current allocation of wealth in the IESO-administered markets is not correct, as evidenced by the need for OPA contracting for new supply.
 - A consumer noted that it is not clear what benefit that consumers would get in exchange for the re-allocation of wealth identified by the analysis. Without a clear understanding of such benefits, consumers are reluctant to support any such change.
 - Some members suggested that the MPWG is a good forum, and the peak vs. average issue is a good focus for testing possible criteria for balancing a change in wealth allocation and economic efficiency gains. However, determining the appropriate balance is a political issue and one should not expect the MPWG to come to any conclusions on appropriate criteria. Other members suggested that the MPWG was not a suitable forum to make comment on public policy issues: MPWG is a working group.
 - An intertie trader stated that the IESO appears to be unwilling to live up to its commitment to make decisions on the basis of the results of a cost-benefit analysis. The IESO restated that, at this time, there is no formal IESO position on establishing the Kaldor-Hicks criterion as the sole decision-making criterion. The IESO will consult with stakeholders through the MPWG and the Stakeholder Advisory Committee regarding the appropriate decision criteria.
 - A generator suggested that one possible benefit could be that using average will divert Ontario dollars from imports to domestic suppliers and therefore reduce the global adjustment.
 - Other possible benefits such as environmental impact may be difficult to determine as the fuel source of imports may not always be known (e.g. imports from the United States) or actually be “cleaner” than domestic suppliers.
 - Concern expressed that there is limited consumer representation on the MPWG (a few industrial consumers and no commercial or residential consumer representation). It was noted however that also consulting the Stakeholder Advisory Committee on the criteria for balancing a change in wealth allocation and economic efficiency gains would involve the commercial and residential consumer representatives on that Committee. An industrial consumer suggested that he would take the issue of balancing a change in wealth allocation and economic efficiency gains to the AMPCO Board.
 - An intertie trader suggested that the reduction in import surplus also represented a re-allocation of wealth from importers to domestic suppliers.

Next Steps

August 8, 2008

Public

Page 5 of 12

Market Pricing Working Group
Working Group Chair: Brian Rivard, IESO
brian.rivard@ieso.ca

- The IESO requested members to submit written comments on the analysis and results to the IESO by May 27th, 2008. Comments are to be e-mailed to: iesomarketpricingworkinggroup@ieso.ca
- At the June 5th MPWG meeting, the IESO will present and respond to any written comments received, as well as present a plan for developing and discussing potential criteria for balancing a change in wealth allocation and economic efficiency gains.

Item 3: Issue #39 - Inter-Market Trading of Operating Reserve

Usman Hannan (IESO) presented the findings of the survey of North American inter-market trading of operating reserve.

Members Questions, Comments and Discussion

1. In response to member questions of clarification, the IESO and other members made the following responses:
 - “Interruptible exports” in WECC are probably analogous to “recallable” exports from Ontario.
 - Imports of operating reserve to Ontario can have interruptible transmission service from the neighbouring jurisdiction.
 - A TransEnergie tariff issue is preventing imports of operating reserve from Quebec to Ontario.
 - The MISO operating reserve market is now expected to be in service in September of 2008.
 - A likely recommendation of this study could be to retain the survey as a benchmark until there are developments in neighbouring markets.
 - The IESO will contact the applicable MISO balancing authority to determine if imports of operating reserve from Ontario would be accepted in that MISO balancing authority.
2. The size of the operating reserve market in the northeast (NPCC and MISO) is an important consideration. The IESO should assess that size of that market and factor that into its recommendation.
3. An intertie trader suggested that the real issue was that it is impossible to sell a capacity product, including operating reserve, from Ontario into New York, while it is possible to sell capacity products from other jurisdictions into New York. What needs to change in Ontario to be able to sell a capacity product from Ontario to New York?

Next Steps

- At the June 5th, 2008 MPWG meeting, the IESO will present its draft recommendation on addressing this issue.

Item 4: Integration of OPA Demand Response 3 Program

Dave Robitaille presented how the IESO will be integrating the OPA DR3 program.

Members Questions, Comments and Discussion

1. A generator stated that notification of the market of a DR 3 activation using the existing criteria for a revised System Status Report is not appropriate. A DR3 activation may result in dispatchable loads that are offering operating reserve leaving the market and other operating reserve providers not being aware of this potentially significant change. An intertie trader suggested that if there are 250 MW of DR3 capacity, a DR3 activation should be a reason for re-issuing an SSR. DR3 resources are being dispatched by the IESO.
2. A generator requested that non-confidential elements of the service level agreement between the IESO and OPA be provided e.g. scope and process information. The IESO undertook to determine what parts of that agreement could be made public. Refer to action item AI 49-1.
3. A generator requested that the OPA maintain on its web site archives of data and information relating to its demand response programs, comparable to the archiving of market data by the IESO.
4. An intertie trader asked whether reliability must-run contract information is public. A generator responded that information regarding the only such contract is published on the OEB web site.

Item 5: Other Business

a) Members Issues

- An intertie trader suggested that IESO practice of making exports to New York recallable when Control Action Operating Reserve (CAOR) is scheduled in pre-dispatch is not appropriate. He asserted that the IESO knows that New York will not accept such recallable exports and so it is wrong for the IESO to link recallable exports to New York to the CAOR scheduled in pre-dispatch i.e. CAOR scheduled in pre-dispatch should not be backed by recallable exports to New York, as such exports are not allowed. Other members, while agreeing that the CAOR construct was valid, also questioned whether the IESO was using the appropriate “control action” to back the CAOR scheduled in pre-dispatch or real-time. Members requested that the IESO advance the review and discussion of CAOR, currently scheduled for Q4 of 2008.

b) Review of February and March 2008 Pricing Events

John MacKenzie (IESO) presented a summary of pricing events for February and March 2008. Following this presentation it was identified that the energy offer curve was quite steep in April and May and was likely the main cause of the “price spikes” seen in those months. The steepness of the offer curve was due to several factors including:

- It was a period of freshet where hydroelectric generation resources that would normally provide operating reserve and offer energy at somewhat higher prices, were offering energy at low prices to use the spring run-off water. This effectively placed the hydroelectric generation at the bottom of the supply stack and left a hole in the supply offer curve at the somewhat higher prices.

- Other supply resources were on planned outage in preparation for the summer season. Further details on individual April “price spikes” would be provided at the next MPWG meeting.

Members Questions, Comments and Discussion

None.

| Action Item Summary | | | | |
|---------------------|---------------|---|--|--|
| AI # | Date AI Taken | Action | Status | Comments |
| AI 34-5 | 3 Nov 06 | IESO to report back at December MPWG meeting on peak vs average efficiencies and price impact analysis. | Status: Closed | Refer to agenda item 2 |
| AI 36-2 | 1 Mar 07 | Do other electricity market and system operators use peak or average demand forecasts?. Information on the demand forecasts used for price determination is also required. | Status: Open Target Completion Date: June 2008 | Target completion date changed from May 2008 to June 2008. |
| AI 44-2 | 23 Aug 07 | 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. Target Completion Date: Q4 of 2008. | |
| AI 44-5 | 23 Aug 07 | IESO to provide the working group with the scope of the LMP study being conducted under stakeholder engagement plan SE-25. | Status: Closed | There is no published scope for the LMP study being conducted under SE-25. |

| Action Item Summary | | | | |
|---------------------|---------------|--|---|--|
| AI # | Date AI Taken | Action | Status | Comments |
| AI 45-4 | 29 Oct 08 | <p>IESO to report back to the MPWG on the following with respect to OPA DR programs:</p> <ol style="list-style-type: none"> Should expected DR3 programs activations were used to consider generator and transmission outages? What planning and real-time information regarding these programs can be made public? Can the transparency of the triggering of these programs be improved? Define the rules for open and closed notification for the DR3 program. Are market rules needed to authorize the IESO role in the OPA DR programs? Simple numerical examples of DR2 and DR3 response. | <p>Status: #1 open. #2-#6 closed Target Completion Date: To be determined</p> | <p>For closure of #2-#5, refer to agenda item 4.</p> <p>For closure of #6, refer to agenda item 2 in MPWG #48 meeting notes¹.</p> |
| AI 47-2 | 7 Feb 08 | IESO to investigate feasibility of providing stakeholders with pre-dispatch and forecast real-time domestic supply cushion. | <p>Open Target Completion Date: Q4 of 2008</p> | IESO implementing publication of supply cushion data. |
| AI 47-4 | 7 Feb 08 | IESO to investigate the feasibility of reporting activations of OPA demand response programs as part of the monthly pricing event reporting. | <p>Open Target completion date: To be determined.</p> | IESO to follow-up with OPA for permission and information for such reporting |

¹ Link to final meeting notes.
August 8, 2008

| Action Item Summary | | | | |
|---------------------|---------------|--|---|--|
| AI # | Date AI Taken | Action | Status | Comments |
| AI 48-1 | 6 Mar 08 | IESO to confirm whether reasons for administrative pricing events are reported as part of the IESO corporate performance measure reporting. | Closed. | The IESO does not report reasons for administrative pricing events as part of the corporate performance measure reporting. |
| AI 48-2 | 6 Mar 08 | IESO to determine (i) whether or not the DR3 day-ahead warnings will be published and (ii) whether or not IESO demand forecasts will be adjusted to reflect expected DR3 response to prevent over-commitment of supply | Closed. | Refer to agenda item 4. |
| AI 48-3 | 6 Mar 08 | IESO to notify MPWG when OPA DR3 program rules are published. | Closed. | Program rules published on March 31, 2008. |
| AI 48-4 | 6 Mar 08 | The IESO to provide details of how it would document its processes (as opposed to those of the OPA), and how its process development would be stakeholdered.” | Closed. | Refer to agenda item 4. |
| AI 48-5 | 6 Mar 08 | IESO consider developing criteria for integrating expected DR1 reduction into the IESO market demand forecasts | Open. Target completion date: To be determined | |
| AI 48-6 | 6 Mar 08 | IESO to provide examples as to how imports have offered operating reserve. | Open. Target completion date: To be determined | |

| Action Item Summary | | | | |
|---------------------|---------------|--|---|-------------------------|
| AI # | Date AI Taken | Action | Status | Comments |
| AI 49-1 | 16 May 08 | IESO to determine what parts of the service level agreement between the IESO and OPA related to DR 3 program could be made public. | Open. Target completion date: To be determined | Refer to agenda item 4. |