

Final Minutes of Meeting

| Date held: August 26, 2014 | Time held: 9:00 am | Location held: Minto Boardroom |
|-----------------------------------|--|--|
| Invited/Attended: | Constituency Represented or Company Name: | Attendance Status: (A)ttended; (R)egrets |
| Panel Members | | |
| Edith Chin | Natural Gas Industry Rep. | A |
| Shelley Cunningham | Distributor Representative | A |
| David Curtis | Transmitter Representative | R |
| Paul Huebener | Financial Services Representative | A |
| Brian Kelly | Generator Representative | R |
| Robert Lake | Residential Consumers Rep. | A |
| Martin Longlade | Industrial Consumers Rep. | A |
| Kazi Marouf | Distributor Representative | A |
| Brian Rivard | IESO Representative | A |
| Peter Rowles | Commercial Consumers Rep. | A |
| Yannick Vennes | Retailers and Wholesalers Rep. | R |
| Bill Wilbur | Generator Representative | A |
| Mark Wilson | Chair | A |
| Stakeholder Observers | | |
| Muhammed Ali | Hydro One | A |
| Jeannette Briggs | IESO | A |
| Dave Brown | Ontario Energy Board | A |
| David Devereaux | IESO | A |
| Gordon Drake | IESO | A |
| Reena Goyal | IESO | A |
| Susan Harrison | IESO | A |
| Luis Marti | Hydro One | A |
| Faye McDermid | OPG | A |
| David Peterson | OPG | A |
| Mark Tinkler | Customized Energy Solutions | A |
| Candice Trickey | IESO | A |
| Gabriel Villegas | Bruce Power | A |
| Secretariat | | |
| Jo Chung | IESO | A |

| | | |
|--------------|------|---|
| John Rattray | IESO | R |
|--------------|------|---|

All meeting material will be posted on the IESO web site at:

http://www.ieso.ca/imoweb/amendments/tp_meetings.asp

Agenda Item 1: Administration

Agenda:

The agenda was approved.

Minutes and Action Items:

The Chair asked the Panel for any comments on the draft meeting minutes of the July 22, 2014, TP 281 meeting. The Chair noted a request received in advance of the meeting from the absent transmitter representative to remove the 2nd sentence from the 5th paragraph on page 4 of 8 regarding recovery of audit costs in circumstances of overpayments/underpayments. No further comments were received and the Panel unanimously approved the draft TP 281 minutes.

The Chair informed the Panel that AI-281-1 and AI-281-2 will be addressed during agenda items 4 and 5, Demand Response Pilot Programs and the Capacity Based Demand Response.

The Chair announced that it was David Curtis' last meeting and thanked him for his input and insight with the Technical Panel. He added that the IESO was taking a nomination to the IESO Board in September to replace the transmitter representative, and pending Board approval, is expected to attend the September 30th Panel meeting.

The Chair informed the Panel that the General Conduct Rule went into effect on July 31st when the OEB approval of the IESO license amendment was granted.

The Chair provided the Panel with an update on the Technical Panel review, and noted that the consultants had met with the Stakeholder Advisory Committee (SAC) on August 20th seeking their input as part of the review process. The review is expected to be completed by early fall.

The Chair noted that the IESO and OPA merger legislation was passed in late July, and that the target effective date was January 1, 2015. A merger project team has been tasked with coordinating what work is required for the January 1, 2015 go-live date of the merged organization.

The natural gas representative asked whether the merger was discussed during the Technical Panel review, and how the Technical Panel will fit into the new organization. IESO staff responded that the merger was not within scope of the Technical Panel review, and that it will need to be looked at outside of the Technical Panel review. The natural gas representative then asked if the results of the review would be presented to the IESO Board. IESO staff confirmed this.

A generator representative asked if the recommendations from the Technical Panel review would be made public. The Chair responded that he expected this to occur at some point.

Agenda Item 2: Stakeholder Engagement Update

The purpose of this discussion was to inform the Panel of any status updates to current IESO stakeholder engagements, and based on the suggestion from the SAC during the Technical Panel review, to inform Panel members going forward, of items discussed at the most recent SAC meeting:

- Capacity markets – the IESO gave a presentation and led a discussion on the background and history of capacity markets in order to provide more information on other jurisdictions and how they operate. The presentation discussed the expected benefits of a capacity market and next steps. A formal stakeholder engagement is expected to commence in September.
- Cybersecurity – a presentation was given on cybersecurity and the potential threats to the electricity industry.
- Technical Panel Review – the consultants held a discussion with the SAC on the Technical Panel process.
- Stakeholder Engagement Calendar – provides a snapshot of all active engagements and timelines. One key item relates to the refresh of the IESO’s Market Information Systems (MIS). The IESO representative stated that MIS updates are expected at this time to be split between a systems refresh, with separate discussions with stakeholders on real-time market changes such as 24-hour optimization, more frequent scheduling of interties, and real-time pricing.
- Energy Storage RFP – the IESO’s request for proposal for storage resources has been completed and five proponents were selected. The contracts are expected to be finalized by the end of September.
- Demand Response (DR) – a price trigger was implemented in the spring but has yet to be activated, given the cold summer. The next DRWG public session is on September 12th.
- Review of Ontario Interties – work is continuing on a draft report submitted to the Minister of Energy on June 30th to consider an assessment of different import options. The IESO will continue that work and will report back to the Minister.
- Review of Generation Guarantee Programs – the next stakeholder session is expected to take place in the last week of September. The proposed agenda will include follow-up analysis on potential over-commitments related to the RT-GCG program, and discuss options to address ramp-down CMSC. The IESO is targeting to complete the stakeholder consultation by the end of 2014 and move forward to develop any required market rule amendments for implementation in 2015.

Agenda Item 3: Eliminate the 15-Minute Restoration Obligation under a High-Risk Operating State

| | |
|---|--|
| MR-00409: Eliminate the 15 Minute Restoration Obligation Under a High-Risk Operating State | |
| IESO Support Staff | Dave Deveraux & Josh Duru |
| Stakeholder Plan | Reliability Standards Standing Committee (RSSC) and other stakeholders |

The purpose of this discussion was to review draft amendment proposal MR-00409-R00: Eliminate the 15-Minute Restoration Obligation under a High-Risk Operating State, (refer to documents IESOTP 282-3a and 3b) and to request that the Panel vote to recommend the draft amendment proposal to the IESO Board for approval.

The Panel unanimously recommended MR-00409-R00 for IESO Board approval (including two proxy votes in favour from absent Panel members).

Agenda Item 4: Demand Response Pilot Programs

| | |
|---|--|
| MR-00410: Demand Response Pilot Programs | |
| IESO Support Staff | Gordon Drake & Josh Duru |
| Stakeholder Plan | Demand Response Working Group (DRWG) and Public Sessions |

The purpose of this discussion was to seek the Panel’s recommendation to post draft amendment proposal, MR-00410-R00-R01 for stakeholder comment for a three week period ending September 18, 2014 (refer to documents IESOTP 282-4a and 4b).

IESO staff provided the Panel with clarity on the DR audit provisions to address AI-281-1. Based on feedback received from the Panel during the July Technical Panel meeting, and based upon the IESO’s review of the existing audit provisions in the market rules, the IESO has revised the DR audit provisions that relate to both MR-00408 and MR-00410. The revised language creates symmetry for either an underpayment or overpayment determined as a result of the audit, removes the provision for the recovery of IESO costs related to audit, and maintains consistency with a majority of existing audit provisions in the market rules.

A generator representative stated that the changes to the audit provisions address his concerns and thanked the IESO for the consideration. He asked whether the changes related to Agenda Item 6 and the Adjustment Account. The Chair suggested that questions on the adjustment account be discussed during Agenda Item 6, and indicated AI-281-1 would be closed.

The residential consumer representative asked what the cost impact would be to consumers related to the DR programs. IESO staff responded that the existing payment stream would be maintained from the OPA DR3 program at approximately \$104,000 per MW on a fleet of approximately 380 MW. The total cost is expected to be the same as it was under OPA administration in the order of \$30 million per year. The residential consumer representative asked if the cost would impact electricity rates. IESO staff responded that there should be no incremental costs.

The residential consumer representative asked how gas generation contracts signed 10 to 15 years ago and the resulting spare generation tied into the DR efforts. The Chair responded that the two resource types were separate and unique. Generator contracts are there to meet peak demand, and the DR program is another vehicle to use during peak demand.

The natural gas representative asked if gas generation was truly dispatchable, since it is up to the gas generator to offer into the market and they are not required to offer at all times, as opposed to DR which would be a truly dispatchable resource since their offers are automatically included in the market, based on their DR schedule. The IESO representative responded that gas generators place offers based on their costs, contracts and the price of gas, but that their offers will be dispatched on the merit order of the stack relative to the price of DR.

IESO staff provided the Panel with an update on the activities of the DRWG. On August 6th, there was a DRWG session to discuss market manual changes required to support capacity based demand

response at a conceptual level in the areas of registration, operation and settlements. The IESO also shared a mock-up of the proposed DR report with the DRWG which will be based on pre-dispatch outcomes to show how DR resources have been scheduled. The objective of these reports is to provide greater market transparency of DR resources. Further information on market manual content and the DR report will be brought to the September 12th public DRWG meeting.

DR Pilot Program Discussion

On August 21st, the IESO held a meeting with the DR pilots sub-committee which focused on greater design detail and on the expectations of proposed DR pilots. There was discussion on the types of participation envisioned across the different technologies for dispatchable load and hourly products through unit commitment pilots, in addition to the role of the sub-committee compared to the role of the IESO during the development of the RFP.

A distributor representative stated that he had received comments from his constituency and asked if the next DRWG public meeting would provide an opportunity for LDCs to bring those comments forward. IESO staff responded that the next session of the DRWG is an ideal opportunity for LDC's to participate.

A generator representative asked if the settlement uplift charge for the recovery and distribution of DR pilot costs, in a methodology akin to global adjustment, will be based on the 'high five' coincident peak calculation, or will it be distributed equally to all loads. IESO staff responded that the proposed methodology will mimic what exists today, and would be based on the 'high five' coincident peak calculation. IESO staff added that the DR pilot programs are a new program to test the capabilities of DR market participants to deliver certain services into the IESO administered markets. The Capacity Based DR program is the transition of the OPA's DR3 program into the IESO-administered market. Both programs will have settlement methodologies via uplift, but in a form that will be similar to the global adjustment approach to keep the charges for the program consistent.

The natural gas representative asked if DR would continue to settle through uplift charges once DR auctions are established. IESO staff responded that DR would continue to be settled through uplift in a manner consistent with the methodology used for the global adjustment calculation.

The industrial consumer representative stated that he understood that cost recovery through uplift for the temporary pilot programs and transitional capacity based DR program was to maintain consistency, but that he was trying to understand the link between the past practice of cost recovery through global adjustment and the IESO moving forward with a market based program. IESO staff responded that the costs associated with capacity based DR are related to making capacity available, and therefore it is appropriate to recover costs in a manner that takes into account resources who reduce consumption during peak times. Moving forward, the IESO will maintain that consistent allocation approach that takes into account the cost of making capacity available during peak hours and allocating costs to meet peak demand.

The natural gas representative asked if global adjustment was evenly distributed across all consumers, whether the allocation method would be as critical under those circumstances as what the calculation is trying to do now. The industrial consumer representative added that collection through global

adjustment is a societal cost for those costs that cannot be collected through normal market mechanisms, and asked how DR pilot programs fall into that bucket. The IESO representative responded that the IESO was currently in the process of transitioning the OPA’s DR3 program into the market, and the program currently collects its costs through global adjustment. The simplest approach, taking into account the temporary nature of the programs, was for the IESO to continue on with that cost recovery methodology based on global adjustment. For the short term DR pilot program cost recovery it made sense to use a consistent methodology. The IESO representative stated that when the IESO moves forward to a true capacity market, the cost recovery mechanism may consider a different market mechanism which would require further discussions with stakeholders.

IESO staff clarified to the Panel that the IESO would not be recovering costs for DR pilots or the capacity based DR program through global adjustment, but through an IESO uplift that will be calculated using the global adjustment methodology.

In conclusion, the Chair asked for the Panel’s vote to post MR-00410-R00-R01 for stakeholder comment. The Panel unanimously agreed to post MR-00410-R00-R01 for stakeholder comment (including two in favour proxy votes from absent Panel members).

Agenda Item 5: Demand Response – Capacity Based Demand Response

| | |
|---|--|
| MR-00408: Capacity Based Demand Response | |
| IESO Support Staff | Gordon Drake & Josh Duru |
| Stakeholder Plan | Demand Response Working Group (DRWG) and Public Sessions |

The purpose of this discussion was to seek the Panel’s recommendation to post draft amendment proposal, MR-00408-R00-R04 for stakeholder comment for a three week period ending September 18, 2014 (refer to document IESOTP 282-5a, 5b, and presentation of AI-281-2: DR and GA Peak Avoidance).

IESO staff walked the Panel through a presentation on the DR and GA Peak Avoidance in response to AI-281-2, in which the IESO committed to provide the Panel with more clarity on the approach being taken to ensure that global adjustment and the DR programs are aligned.

The industrial consumer representative asked if the driving principle for aligning global adjustment and DR programs was to ensure that market participants do not benefit twice for the same demand reduction. IESO staff confirmed this.

The industrial consumer representative stated that in his opinion, a market program should not be confused with legislative changes which allocate costs through a societal, global adjustment charge. IESO staff explained that while the capacity based DR is a market based program, it places the obligation for participants to be available and to activate when called upon, for which they receive an availability and utilization payment. If for any reason a participant is not available to participate, then they will not be compensated as such, and the test ‘Not Fully Available for Curtailment,’ applies to anything that could cause a participant to be unavailable for the capacity based DR program and not only the global adjustment. The presentation specifies global adjustment as one type of driven behaviour that could cause a participant to be unavailable, but the test will consider all behaviour that causes a participant to be unavailable.

The industrial consumer representative asked how the IESO would use the 'Not Fully Available for Curtailment' test for an aggregator. IESO staff responded that aggregators are required to provide the same information for each contributor so that the IESO can apply the test across their aggregation.

At the conclusion of the presentation, hearing no objections, the Chair closed AI-281-2.

A generator representative noted the temporary nature of the capacity based DR program and asked when the program would cease to exist. IESO staff responded that the end date of the capacity based DR program would be the delivery date of a DR auction that follows the expiry of the last DR contract in 2018. The delivery date of that auction, expected in 2019, will allow for the transition out of the capacity based DR program and into a DR auction.

The generator representative asked if the end of the capacity based DR program was tied to the reference of a DR auction and when, if required, the market rule amendments would be brought through the Technical Panel. IESO staff responded that the expectation was for the first DR auction to deliver in 2016 and would therefore need to be completed by 2015. The IESO will be commencing the stakeholder process for a DR auction in the very near future.

The generator representative noted the addition of Chapter 5 to the list of chapters that will not apply to DR market participants (section 17.2.4 of Chapter 7), and asked if no reliability provisions in Chapter 5 should be applicable to DR market participants. IESO staff responded that required reliability provisions have been included in the proposed new section 17 of Chapter 7 that will be specific to capacity based DR participants, rather than attempting to include only small portions of chapter 5 which details different reliability obligations for different classes of market participants.

The generator representative noted the removal of the obligation for DR market participants to have dispatch workstations or participant workstations, and asked if a DR market participant participating in the 5-minute load following pilot would require a dispatch workstation. IESO staff responded that capacity based DR participants will only be required to have voice communication and electronic mail for communication with the IESO, and that a dispatch and participant workstation would not be an obligation for all DR market participants. For those market participants requiring additional communication requirements, i.e. a dispatch workstation for those participating in the 5 minute load following pilot, those requirements would be outlined in the request for proposal and within their contract with the IESO.

The generator representative requested consistency of the wording in proposed new section 17.4.7 of Chapter 7 which refers to, "would cause the loss of life or injury, cause equipment damage, or cause a violation of any applicable law," with other similar provisions throughout the market rules. IESO staff responded that the lack of consistency in this wording throughout the market rules has been noted, and would likely be addressed in a minor amendment omnibus.

The natural gas representative asked if DR schedules for each market participant will be made public. IESO staff responded that the number of MW under contract for each market participant would not be made public, but that the IESO will report the quantity of MW available for dispatch in each region.

In conclusion the Chair asked for the Panel’s vote to post MR-00408-R00-R04 for stakeholder comment. The Panel unanimously agreed to post MR-00408-R00-R04 for stakeholder comment (including two in favour proxy votes from absent Panel members).

Agenda Item 6: Allocation of IESO Adjustment Account

| | |
|--|---------------------------------|
| MR-00411: Allocation of IESO Adjustment Account | |
| IESO Support Staff | Jeannette Briggs & Brennan Louw |
| Stakeholder Plan | N/A |

The purpose of this discussion was to seek the Panel’s recommendation that draft amendment submission, MR-00411-Q00, warrants consideration as a regular priority item (refer to documents IESOTP 282-6a and 6b).

A generator representative asked what the impetus was for this market rule amendment and if it was related to the changes to the DR audit provisions discussed earlier, as part of agenda item 4. IESO staff responded that the proposed change is related to the changes in payments coming into the adjustment account, unrelated to DR. When the IESO looked at the options to reimburse funds in the adjustment account back to market participants, the only options were to pay for market participant education, or to reduce the IESO fee in the following year. The option of reducing the IESO fee has never been used, and it is unlikely the IESO would use this option. The proposed changes would remove the option to reduce the IESO fee which has never been exercised, and give the IESO Board more flexibility to provide a more timely refund to market participants.

The generator representative asked how funds flow into the adjustment account. IESO staff responded that the market rules specify that funds from fines, penalties and settlement disputes be placed in the adjustment account.

The generator representative asked whether funds from the DR audits would go into the adjustment account, and whether those funds would be net of any IESO costs incurred for conducting audits. IESO staff responded that whether DR audit funds would flow into the adjustment account remains to be seen, and that the proposed rules regarding DR audits reference the applicable market manual.

The generator representative asked if funds do go into the adjustment account, whether any distribution to the market would be proceeds net of costs. IESO staff responded that if DR audit related funds were to flow into the adjustment account, that this would be the case.

The generator representative commented that it sounded like the reason that the cost recovery provisions were taken out of the DR audit rules, was because cost recovery would be covered under the adjustment account if DR audit funds flowed to the adjustment account. He asked whether DR audit funds would flow to the adjustment account. IESO staff responded that they could.

IESO Staff Note: The IESO has determined that the Demand Response audit costs will not flow through the IESO adjustment account.

A distributor representative asked if the IESO adjustment account ever went into a negative balance. IESO staff responded that the balance in the account has never been negative, and has typically been between \$250K and \$1M.

In conclusion, the Chair asked for the Panel’s vote that MR-00411-Q00 warrants consideration as a regular priority item. The Panel unanimously agreed that MR-00411-Q00 warranted consideration and assigned a regular priority to the development of the rules (including two in favour proxy votes from absent Panel members).

Agenda Item 7: Other Business

None.

Next Panel meeting: Tuesday, September 30, 2014

| Action Item Summary | | | | |
|---------------------|-----------|--|--------|----------|
| # | Date | Action | Status | Comments |
| AI-281-1 | 22-Jul-14 | The IESO will review audit provisions in the market rules to provide the Panel with more clarity on the audit provisions for the IESO’s Demand Response programs. | Closed | |
| AI-281-2 | 22-Jul-14 | The IESO will provide the Panel with more clarity on the approach being taken by the IESO to ensure that Global Adjustment and the Demand Response programs are aligned. | Closed | |