

IESO Technical Panel Meeting

Minutes of Meeting

Date held: March 6, 2018		Time held: 9:00 am	Location held: IESO Office, Toronto
Invited/Attended	Sector Representation	Attended; Regrets	
Robert Bieler	Consumer	Attended	
David Brown	Ontario Energy Board	Attended	
Ron Collins	Energy Related Businesses and Services	Attended	
David Dent	Other	Attended	
Barbara Ellard	IESO	Attended	
Sarah Griffiths	Other Market Participant	Attended	
Robert Lake	Residential Consumer	Attended	
Phil Lasek	Industrial Consumer	Attended	
Sushil Samant	Generator	Attended	
Joe Saunders	Distributor	Attended	
Bill Wilbur	Generator	Attended	
Julien Wu	Wholesaler	Attended	
Bing Young	Transmitter	Attended	
Chuck Farmer	Chair	Attended	
Observers / Presenters			
Jo Chung	IESO	Attended	
Josh Duru	IESO	Attended	
Warren Hill	IESO	Attended	
Mike Lyle	IESO	Attended	
Idalin McKenzie	IESO	Attended	
Hok Ng	IESO	Attended	
Agatha Pyrka	IESO	Attended	
Christopher Reali	IESO	Attended	

March 6, 2018

Page 1

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Please report any suggested comments/edits by email to engagement@ieso.ca.

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Invited/Attended	Sector Representation		Attended; Regrets
Rebecca Short	IESO		Attended
Andy Garbas	Effective Technical Solutions Group Inc.		Attended
Herman Mo	Ontario Power Generation		Attended
Secretariat			
Jason Grbavac	IESO		Attended
John Rattray	IESO		Attended
Prepared by: Mitchell Beer / Smarter Shift Inc.			

Agenda Item 1: Introduction and Administration

Chair's Remarks:

The Chair noted that the IESO has been working on the development of an engagement strategy, a task that has been informed by ongoing planning efforts and feedback surveys from stakeholders, Local Advisory Committees, the Stakeholder Advisory Committee, and the Technical Panel. The process raised a number of questions on the role of engagement in aligning stakeholder interests, and on transparency in decision-making. The strategy is expected to be presented to the SAC in May in draft form, then brought forward to the Board in June.

An issue arising in a number of forums has been an interest in understanding the rationale behind IESO decisions. The Chair acknowledged Technical Panel members' interest in receiving communication back on the Board deliberations that follow from their recommendations, noting that some contentious items require more extensive debate that relies heavily on the comments the Panel provides. The Board is unlikely to commit to providing a justification for its decisions. The Chair will explore additional methods of informing the Panel on the nature of the discussions at the Board. The Chair reported on a couple of key personnel changes at Technical Panel. Jason Grbavac, IESO Senior Advisor, Stakeholder Engagement has replaced Susan Harrison as the Technical Panel secretariat. The Chair added that this would be his last Panel meeting, with the broader realignment within the IESO providing a timely opportunity to pass the gavel to Mike Lyle, Vice President of Legal Resources and Corporate Governance. Mr. Lyle said he looks forward to stepping into the role of chair.

Mr. Lake asked whether it is common for various stakeholders to lobby the IESO Board. The Chair said he imagined Board members hear a great many individual opinions on specific issues, but are not lobbied per se. Mr. Lyle said he did not believe the Board was being lobbied on decisions related to Market Renewal. John Rattray, IESO, said Board decisions are driven by

the record presented, and are informed in part by the opportunity for Board members to attend Stakeholder Advisory Committee meetings as observers.

The minutes of the Panel's January 23 meeting were adopted with no comments or revisions.

Agenda Item 2: Stakeholder Engagement Update

Jason Grbavac, IESO, reported on what he described as a fairly active engagement calendar, with a focus on the Stakeholder Advisory Committee (SAC), the Long-Term Energy Plan (LTEP), and other general engagement initiatives outside of Market Renewal.

The SAC hosted a highly interactive meeting on February 21, with opportunities for members to present priorities for the calendar year and beyond. Mr. Grbavac said it was very informative for the IESO to hear from sector leaders to understand the challenges and opportunities they see ahead. The SAC will convene again in May (later amended to April 27).

The IESO posted its LTEP implementation plan, *Long-Term Energy Plan Into Action*, on February 21, and has responded to stakeholder feedback on the resulting engagement process. The IESO will provide further information as the process begins to roll out.

Mr. Grbavac noted that the engagement on the Conservation Framework: Mid-Term Review is coming to a close, after receiving some focused attention at the SAC. A draft report was posted to the IESO engagement website, stakeholder feedback was due February 13, and the IESO will issue its response before the engagement closes March 31.

Ms. Griffiths asked whether the Conservation Framework was still program-based. Mr. Grbavac said it was.

Agenda Item 3: Market Renewal Program Update

Barbara Ellard, IESO, reported that the Market Renewal Working Group (MRWG) is setting the short-term scope of the program by focusing on four initiatives: the Single Schedule Market, the Day-Ahead Market, Enhanced Real-Time Unit Commitment under the energy work stream, and the Incremental Capacity Auction as the main activity under the capacity work stream. The Incremental Capacity Auction, in turn, has two major elements: Capacity Exports, and Demand Response Auction enhancements.

Earlier in the Market Renewal process, participants also talked about operability, flexibility, and how to schedule interties, Ms. Ellard said. They've since decided to put those issues on the back burner, pending a broader conversation around the dimensions of the Ontario electricity market post-renewal. Those issues are still important, she said, but MRWG members agreed that the four current initiatives would alone be a significant amount to deal with as they move through market design.

Ms. Ellard said Market Renewal is taking place at a time when the entire market is evolving, leading to short-term issues like interim flexibility, capacity exports, changes in operating reserve and who can provide it, and enhancements aimed at helping participants and the IESO prepare for future Demand Response Auctions. Those issues are all to be addressed before Market Renewal takes effect.

The MRWG is treating all four of the current initiatives as medium-term efforts, Ms. Ellard explained, since they're of such a size and scale that they'll roll out over a period of a few years, even though they're under deliberation now.

Mr. Wilbur asked whether the items Ms. Ellard had identified as broader issues would be addressed while Market Renewal is under way. Ms. Ellard said some of the discussion would percolate through MRWG subcommittees, the Working Group itself will consider the future of the market, and a discussion running in parallel with Market Renewal will begin this year. Future change questions, she said, will include the place of non-emitting resources in emerging policy goals, and how the growth of distributed resources will fit the new marketplace. The changing LDC landscape, flexibility, and operability are all high on the MRWG's list of upcoming issues, and a number of other near and long-term matters could emerge as discussions unfold.

Mr. Saunders said he understood the Technical Panel would be addressing many of the same issues. Mr. Lake said he could see the potential for distributed resources to be very significant in the future. The Chair agreed the implications of net metering could be very disruptive for LDCs, making it considerably more difficult to forecast demand and need. Mr. Lake said the principal investment in energy resources will still have to be paid off at some point.

The Chair said the argument was interesting and would warrant conversation, particularly as environmental objectives begin driving policy and more becomes known about the performance of different technologies. The consumer is also changing, and that shift will have a major impact on the entire value stream for electricity. He added that the IESO Stakeholder Summit on June 11 will focus on innovation, beginning with the customer.

Ms. Ellard said Alexandra Campbell had joined the Market Renewal team to work on the capacity stream, including the incremental capacity auction, exports, and Demand Response Auction enhancements. In her presentation, she reported on several changes to the approach to stakeholder engagement: energy and capacity meetings will now be held on a two-month cycle, the IESO will outline preliminary decisions as soon as possible, more time and discussion will be devoted to key design elements, and discussion will focus at a holistic level, outlining linkages and key considerations for integration. IESO staff will continue to meet monthly with the MRWG and quarterly with key stakeholder associations, while always making themselves available for constructive dialogue.

She added that all the Market Renewal initiatives are progressing toward high-level designs, with the IESO presenting preliminary drafts for stakeholder feedback. To date, the IESO has put

forward preliminary decisions for 15 of 19 design elements under Single Schedule Market, 13 of 18 under Day Ahead Market, nine of 13 under Enhanced Real-Time Unit Commitment, and design *options* for 15 of 19 elements under the Incremental Capacity Auction.

Ms. Ellard acknowledged the linkages between Market Renewal and the many other initiatives under way across the system. The MRWG formed its Non-Emitting Resources Subcommittee to address two questions: the role of non-emitting resources in the marketplace, and how to effectively meet policy objectives through the market. Interoperability and flexibility are on the horizon as future considerations the Market Renewal process can help address. Stakeholders have identified contracts as an important issue that ties in with Market Renewal.

With respect to governance, the IESO has been working with the MRWG and other stakeholders to define issues like participation, stakeholder engagement, and dispute resolution that are within scope for the Market Renewal process. That discussion is open for stakeholder feedback.

Mr. Wilbur asked what type of dispute resolution might emerge within Market Renewal. Ms. Ellard said the IESO is assessing whether existing mechanisms are sufficient, or whether some form of alternative dispute resolution model will be required. Mr. Wilbur said that approach made sense, but cautioned that it would be odd to establish two tracks for dispute resolution. Ms. Ellard agreed.

Ms. Griffiths noted that much of the Market Renewal process to date had focused on the capacity market, and asked for some assurance that the IESO is engaging with the Ontario Energy Board and that both entities are ready and have the resources to address energy markets, as well. With no overarching, independent body comparable to the U.S. Federal Energy Regulatory Commission (FERC), she said she wanted to be certain Ontario has the right mechanisms in place.

Ms. Ellard said the Non-Emitting Resources Subcommittee would address issues related to participation, market efficiencies, and potential commercial mechanisms and incentives to value environmental attributes. The objectives are to fully understand the areas that now exist where non-emitting resources can help meet system needs, and to assess what it will mean for the market to have significant non-emitting resources available on a day-to-day basis. A technical conference coming up April 5 in Toronto will address the issue in more depth.

The IESO is also issuing a two-part Request for Information (RFI) this year to get a better sense of the shifting landscape for non-emitting resources. Changes in pricing (most notably in Alberta), technology, and software will all be factors in setting reasonable assumptions that make sense for Ontario. The first phase of the RFI asks how non-emitting resources can participate in current and future electricity markets; the second will focus on a set of broader considerations, including how non-emitting resources are developed.

Ms. Ellard said the first phase of the RFI will conclude in time to inform high-level designs under the Market Renewal process, and the second phase might, as well. The IESO will present

a more precise timeline to the MRWG in March, including due dates for the RFI and connections back to the high-level design process.

Mr. Dent recalled that the SAC had considered a separate track for a non-emitter capacity auction, and asked whether that point had been resolved. Ms. Ellard said there would be no set-asides: the IESO will ensure that every technology can participate, and the subcommittee will assess whether the different revenues coming out of the marketplace will be sufficient to support investments in non-emitting resources. She added that other jurisdictions like New York and New England are addressing similar issues.

Mr. Dent asked whether rules could be impacted by barriers pertaining to non-emitting resources. Ms. Ellard said specific issues will show up in the market rules, citing eligibility to supply operating reserve as an obvious example.

Mr. Samant said he's often asked whether the IESO seeks to target value extraction from contracts, and asked what steps are taken to restore contracts to their original economics in situations where value extraction is an unintended consequence. Mr. Lyle said the IESO's practice is to negotiate terms, not impose them. When contracts are opened up, he said, there will be no attempt to extract value from them, and sophisticated parties on all sides will have the opportunity to ensure that principle is upheld.

Mr. Samant asked how negotiations would proceed if extra value were extracted because of a rule or process arising from the Market Renewal process. Mr. Lyle said most contracts have provisions that protect parties when they see economics shift due to changes in market rules. He added that the goal of reopening contracts would not be to extract value, but to negotiate in good faith to adapt the terms to the new reality of Market Renewal.

Ms. Ellard said the question of net benefits originated with a focus on delivering savings back to ratepayers. Mr. Samant asked what would happen in the course of negotiations if it looked like value was being given up. Ms. Ellard said Market Renewal will deliver a new marketplace, with changing risks on all sides, so it will be necessary to negotiate and recalibrate.

Mr. Wu asked if contracts managed under the Ontario Electricity Financial Corporation (OEFC) will be impacted. Mr. Samant added many existing contracts are with the IESO, but others are between generators and the Ontario Electricity Financial Corporation (OEFC)—in those instances, he said, the OEFC is the agency that could be at risk. He asked whether OEFC is aware of the Market Renewal process. The Chair said the Ministry of Energy would likely keep them apprised. Mr. Wu asked whether the IESO has contacts with OEFC, and whether they're aware of how Market Renewal could affect them. Mr. Lyle said the two organizations do communicate from time to time.

Agenda Item 4: Regulated Settlement – Deletion of Rural and Remote Settlement and Debt Retirement Charge	
Presenter	None
Action	Review amendment proposal MR-00434-R00 and vote on whether to recommend the draft amendment to the IESO Board for consideration at its April 11, 2018 meeting, with a recommended effective date of May 4, 2018.

Rebecca Short, IESO, briefly recapped the purpose of the proposed rule amendment. She reported that it was posted for stakeholder comment, and no comments were received. She recommended that the Technical Panel vote to recommend the amendment to the IESO Board for consideration, with a recommended effective date of May 4 if it is approved.

There were no questions on the proposed rule amendment. The Panel unanimously voted to recommend the amendment proposal for IESO Board consideration, with no elaborating comments from Panel members.

Agenda Item 5: Station Service Obligations	
Presenter	Christopher Reali
Action	Review Amendment Submission MR-00435-R00 and vote on whether to post the draft amendment for stakeholder comment for a period of two weeks, ending on March 22, 2018. The target for IESO Board consideration of the amendment is June 13, 2018.

The Chair recalled that this item had been deferred from the Technical Panel’s previous meeting, to allow time to address some last-minute questions from stakeholders.

Josh Duru, IESO, said the Panel would be asked for a vote to post the proposed amendment for stakeholder comment. Since the January meeting, staff held discussions with Hydro One to clarify concerns about the previous draft and revised the proposed amendment to Market Rules subsection 2.1A.3, to clarify that submission of station service estimates would be the responsibility of the facility owner. Mr. Duru said the edit was reflected in documentation provided to Panel members.

Christopher Reali, IESO, recalled the discussion at the Panel’s November meeting, noting that the Market Rules currently identify the registered market participant, who is the person that submits dispatch data, as the obligated entity for station service estimates. Responsibility for this issue would more appropriately rest with the facility owner.

Following the November meeting, the IESO sought feedback on the proposed amendment at the December 12, 2017 meeting of the Revenue Metering Standing Committee, where Mr. Reali said it received general support. Committee members agreed there had been some lack of clarity on the matter, leading to confusion around who actually had the responsibility.

The IESO did, however, receive stakeholder feedback on two points. The first was a concern that the proposed amendment may be placing additional obligations on the market participant responsible for registering the facility. The IESO discussed this further with the participant who submitted the comments. This discussion clarified that the IESO noted that facility owners are already performing these obligations in accordance with the IESO's market manuals. Mr. Reali said the participant's concerns appeared to have been addressed.

The second concern was that the phrasing of the amendment clarified responsibility for calculating the station service estimate, but not for submitting it. Mr. Reali said this issue was addressed in redlined text submitted for Technical Panel members' review.

Mr. Samant asked whether Chapter 6 of the Market Rules would address the requirement without the amendment. Mr. Reali said the issue was addressed in Market Manual 3.7, but it was considered important to spell out the requirement with more clarity in the Market Rules.

Mr. Young asked about situations where Hydro One provides an estimate to be submitted by other parties. Mr. Reali said the focus of the amendment was on redefining the obligated entity. He added that the IESO removed the reference to metered market participants because there could be instances in which no metered market participants are connected at that facility consuming connection station service, and the additional clarity is needed to place the obligation on the market participant that is the owner of the facility. Mr. Reali also indicated that some stakeholders also expressed concern about the scenario in which a market participant prepares an estimate for submission through some other party, but that designated party inappropriately withholds the submission. All of those concerns are addressed by clarifying the responsibility to submit.

If the amendment is eventually approved, Mr. Reali said, the IESO's online registration tool will have to be revised to accommodate submission by a market participant. The effective date for the amendment will depend on when the tool can realistically be aligned with the new process.

Mr. Lake asked whether station service estimates are subject to audit. Mr. Reali said they're included in the IESO's annual revenue metering audit program.

There were no other questions on the proposed rule amendment.

The recommendation to post was adopted unanimously.

Agenda Item 6: Enabling System Flexibility: Thirty-Minute Operating Reserve	
Presenter	None
Action	Review Amendment Submission MR-00436-R00 and vote on whether to recommend the draft amendment to the IESO Board for consideration at its April 11, 2018 meeting, with a recommended effective date of May 4, 2018.

Rebecca Short, IESO said the proposed rule amendment would clarify that the requirement for 30-minute operating reserve is a minimum requirement, and ensure consistency with the market rules language related to 10-minute operating reserve as well as consistency with operating reserve requirements specified in the Northeast Power Coordinating Council (NPCC) Directory #5. The proposed amendment was brought forward to the Technical Panel in November, and then posted for stakeholder comment. No comments were received, and Ms. Short said the Panel would now be asked for a vote to recommend the draft for Board consideration.

Mr. Wilbur asked if the enduring solution reference in the Background section of the proposal will still be discussed as part of Market Renewal. The sentence originally read: “An enduring solution will be determined through the Market Renewal initiative.” This was accurate when the proposal was developed; however, this sentence has since been modified as Ms. Ellard stated that the enduring solution for system flexibility has been removed from the Market Renewal Program, and instead considered through future market enhancements. It was modified to read: “An enduring solution will be determined through future market enhancements”.

Mr. Lake described a scenario where demand suddenly decreased when people stopped watching a popular show on television, and resulted in over supply that caused a brown out. He asked if the system could handle such a scenario and if the IESO is trying to increase the amount of regulation.

Hok Ng, IESO indicated the evolving supply mix with more variable generation and changes in the nature of consumption have increased system flexibility needs. By scheduling more operating reserve for flexibility, the additional operating reserve would help the system better respond to uncertainty associated with variable generation and demand forecasts. With respect to regulation, the IESO had issued an RFP to procure more regulation capacity to address increasing system needs.

Mr. Collins asked whether the IESO had sought internal and external legal review for the proposed amendment. Ms. Short said in-house counsel was asked to review the two specific rules that required amendment. Mr. Collins then asked if it is common practice to only have

internal legal review. Ms. Short said that proposed rule amendments do not typically receive external legal review. Mr. Collins then asked if the IESO was certain it had authority to change the rule. Mr. Rattray confirmed the proposed amendment fell clearly within the IESO's purview to administer the market rules, and asked whether Mr. Collins had a specific concern. Mr. Collins stated other authorities have not used operating reserve for flexibility.

Mr. Wu noted that the amendment referred to the NPCC standard and asked whether there was any need to consult them. Ms. Short said there was not.

The Panel voted unanimously to submit the draft amendment for consideration at the April 11 Board meeting, with no additional comments from Panel members.

Agenda Item 7: Capacity Exports Information Item

Warren Hill, IESO delivered a presentation and answered questions on Capacity Exports. The segment focused on:

- Projects the IESO has undertaken and capacity exports that have been approved to date, in a phased process that predates Market Renewal and is aimed at establishing an enduring framework for capacity trading
- The reliability, resource adequacy, and transparency commitments at the heart of any discussion of capacity exports
- Stakeholder engagement initiatives to date, which have generally indicated good support for capacity exports
- Continuing high-level negotiations with neighbouring jurisdictions, including agreements that are already in place, and the scheduling and economic considerations that factor into capacity exports/imports
- Distinctions between day-to-day electricity trading and longer-term arrangements for capacity exports/imports
- The process for submitting and reviewing requests for capacity exports from Ontario market participants
- The connection between capacity exports and Ontario's emissions reporting in the context of cap-and-trade and federal carbon requirements.

Agenda Item 8: Other Business

John Rattray, IESO, closed the meeting by thanking Chuck Farmer for his leadership over the last two years as Technical Panel Chair. Looking back to Mr. Farmer's first meeting as Chair on February 2, 2016, Mr. Rattray recalled the array of issues he had since helped shepherd through the Panel, including the Technical Panel review, the adoption of new terms of reference, and the generation cost guarantee rule amendment package. On behalf of Panel members past and

present, Mr. Rattray thanked Mr. Farmer for his service and acknowledged his consistent willingness to solicit members' input and work collaboratively.

Mr. Farmer said he had appreciated the opportunity to work with Panel members and view the business through the lens of the Technical Panel, noting that the experience had complemented his other work in stakeholder engagement. He said his new role as Director of Resource Planning, IESO, might well give him opportunities to bring proposed market rule amendments before the Panel.

The meeting adjourned at 10:52 AM.

Action Item Summary			
Date	Action	Status	Comments
January 23, 2018	The IESO will investigate the Technical Panel's request for more in camera sessions.	Open	
December 1, 2015	The IESO will provide an update to the Panel regarding the potential timelines and impacts of changing the reference to the OPA within Chapter 1 of the General Conduct Rule.	Open	