

IESO Technical Panel Meeting

Minutes of Meeting

Date held: November 22, 2017		Time held: 9:00 am	Location held: IESO Office, Toronto
Invited/Attended	Sector Representation	Attended; Regrets; Teleconference	
Robert Bieler	Consumer	Attended	
David Brown	Ontario Energy Board	Regrets	
Ron Collins	Energy Related Businesses and Services	Attended	
David Dent	Natural Gas	Attended	
Barbara Ellard	IESO	Regrets	
Sarah Griffiths	Other Market Participant	Attended	
Robert Lake	Residential Consumer	Attended	
Martin Longlade	Industrial Consumer	Attended	
Joe Saunders	Distributor	Attended	
Sushil Samant	Generator	Attended	
Bill Wilbur	Generator	Attended	
Julien Wu	Wholesaler	Attended	
Bing Young	Transmitter	Attended	
Chuck Farmer	Chair	Regrets	
Susan Harrison	Acting Chair	Attended	
Observers / Presenters			
Tom Chapman	IESO	Attended	
Jo Chung	IESO	Attended	
Josh Duru	IESO	Attended	
Idalin McKenzie	IESO	Attended	
Hok Ng	IESO	Attended	
Christopher Reali	IESO	Attended	
Rebecca Short	IESO	Attended	

November 22, 2017

Page 1

IESO Technical Panel

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



Formatted: Default Paragraph Font

Secretariat		
John Rattray	IESO	Attended
Prepared by: Mitchell Beer / Smarter Shift Inc.		

Agenda Item 1: Introduction and Administration

Chair's Remarks:

The Acting Chair said IESO had reinstated its call for nominations for a Market Participant Consumer representative for the Technical Panel. Nominations were scheduled to close November 24. She reported that Martin Longlade has agreed to continue on the Panel until the end of the year, and welcomed Sushil Samant of Northland Power as a new Market Participant generator representative.

John Rattray, IESO noted that the minutes of the previous minutes misidentified Julien Wu as a generator representative. The minutes were accepted with that correction.

Agenda Item 2: Discussion with IESO Board of Directors and Technical Panel

The Acting Chair recapped the results of the joint meeting between the IESO Board of Directors and the Technical Panel. She noted that in accordance with the Panel's Terms of Reference, the IESO will conduct an annual evaluation of the effectiveness of the Panel in meeting its mandate. She noted that a self-assessment survey will be forthcoming to seek feedback from Panel members which will leverage the discussion during the October 24 joint meeting with the Panel and the IESO Board. Some feedback from that meeting included:

- The IESO Board's interest in receiving more detailed feedback on rule amendments from Panel members, particularly on intended or unintended consequences
- An interest in broader awareness and transparency around the Board's consideration of rule amendments
- Opportunities to use technology, including virtual meeting options, to improve engagement at Panel meetings and stakeholder sessions
- Panel members' need for broader education and preparation for rule development in support of the Market Renewal process

The survey will also help to assess the Panel's effectiveness, and the Acting Chair invited discussion on possible survey themes.

Mr. Wilbur noted that the Rule Amendment Proposal form includes a closing section to document the rationale behind Board decisions on rule changes. Usually, that section is

November 22, 2017

Page 2

IESO Technical Panel

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



Formatted: Default Paragraph Font

completed with one or two sentences describing the benefits of the rule. Mr. Wilbur recalled Mr. Wu's suggestion at a previous meeting that the documentation provide additional insight on deliberations particularly if a rule is contentious.

In addition to member education on Market Renewal, Mr. Dent suggested sharing the more complex issues with the Panel long before they are ready for rule development, so that members can begin learning and thinking about the issues behind them. Mr. Saunders stressed the importance of understanding the context behind proposed rule changes.

Mr. Young noted the volume of material in the Market Renewal Process and said it would be important to structure the process accordingly.

Mr. Wilbur said he had originally envisioned two- to three-hour education sessions to help Panel members prepare for Market Renewal rule amendments, but that he appreciated the education items attached to Panel agendas. He added that he welcomed insights on the design options that might be considered as well as approaches within other jurisdictions on similar issues. Members generally agreed with the added agenda item for Panel meetings.

The Acting Chair said there may be times when members receive background on an issue for which there won't be draft rules to consider until sometime down the road. Mr. Lake said it will still benefit the eventual decision if the Panel gets a better appreciation of the technical, legal, and operational aspects of an issue, given that no single member has expertise in every aspect of the system. Mr. Young said it would be useful to get background on engagements that are already under way.

In reply to a question from Mr. Samant about IESO staff managing the sheer volume of work underway, and questioning the expectation that the Technical Panel was to review all rule amendments associated with Market Renewal, the Acting Chair said Panel members had all agreed on the importance of the education process, and that the IESO's current structure calls for all market rules to receive Technical Panel review. Tom Chapman, IESO acknowledged that staff have had to balance the time and expertise available to the Market Renewal process with the volume of work and stakeholder input involved.

Agenda Item 3: Stakeholder Engagement Update

The Acting Chair reported on two new engagement initiatives the IESO has undertaken.

An engagement on Smart Metering Entity (SME) access, mandated by the Ontario Energy Board, is looking at the value of smart meter data to the sector and developing an implementation plan to make aggregate data (but never individual account information) available to third parties. In a November 7 webinar with more than 100 participants, the IESO delivered an overview of the topic, presented possible scenarios for publishing aggregate smart meter data, and reviewed past test cases identified by municipalities, the OEB, a utility, and the IESO itself. The IESO expects to finalize the test cases by the end of this year, then undertake a

November 22, 2017

Page 3

IESO Technical Panel

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



Formatted: Default Paragraph Font

broader engagement on issues like data evaluation models and standard operating procedures, with the goal of concluding the process by the third quarter of 2018. The Acting Chair invited Panel members to submit any immediate questions they might have on the process.

The IESO is also working on an implementation plan for the nine directives it received from the OEB pursuant to the province's Long-Term Energy Plan (LTEP). An overview has been posted, the IESO is seeking feedback on the whether the plan adequately and efficiently responds to the directives, and the plan is scheduled for submission to the Minister of Energy by January 31.

The Stakeholder Advisory Committee meeting November 29 will discuss an overview of the IESO's draft 2018/2020 business plan, seek input on the LTEP Implementation Plan and receive an update on the Market Renewal program.

The IESO is also seeking responses to its survey on the content and presentation of its 18-month outlook. Comments were scheduled to close November 24.

Agenda Item 4: Market Renewal Program Update

Tom Chapman, IESO reported that the Market Renewal program is progressing well, with an ambitious schedule to work through the high-level design of different work streams. With multiple half- and full-day meetings taking place each week, he said a lot of effort was going into managing and organizing the work flow in a way that accommodated both the IESO and stakeholders.

Four A number of engagements are currently in progress, on capacity exports, enabling system flexibility, the incremental capacity auction, and the single schedule market. Mr. Chapman acknowledged the time commitment and high level of engagement that stakeholders have contributed to the process, and indicated that IESO is looking for ways to reduce the burden on participants without diminishing the collaborative nature of the work.

The Two other engagements on the incremental capacity auction day-ahead market and the single schedule market enhanced real time unit commitment are still at the stakeholder education stage, with discussion of different design options expected to begin in the new year. The engagements on an incremental capacity auctions and a single-schedule market are moving toward the release of high-level design options in the new year later in 2018.

Mr. Chapman said the single schedule market engagement is charting a course away from the current two-schedule design. A meeting earlier this month between the design team and stakeholders considered design options for mitigating individual participants' market power in situations where a very small zone has a single, large electricity supply source.

The engagement is also weighing options for zonal, or uniform pricing and their implications for both the supply side and the load side of the system. Mr. Chapman said there may be reasons to go with more granular pricing for suppliers, while retaining a some type of zonal or

November 22, 2017

Page 4

IESO Technical Panel

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



Formatted: Default Paragraph Font

uniform system for loads. Following an initial presentation of options earlier in November, the IESO invited stakeholder feedback by the end of the year, and expects to come forward with possible design solutions in January 2018. Stakeholder presentations on design options for a single-schedule market will begin at an engagement session on December 11, with a focus on price setting constraint violations, congestion pricing, the growing need for 30 minute reserves, and other focused on their design elements the group presented to stakeholders first discussed in September.

Mr. Lake referred to some of the past history of market design and asked whether the current process is factoring in the possible political implications of future design recommendations. Mr. Chapman said changes being contemplated in load pricing would have no impact not result in different prices for on residential prices consumers, and noted that the large consumers that are most sensitive to wholesale prices have been actively engaged in the Market Renewal process. They've mostly been supportive of the shift away from uniform pricing as long as their specific issues are addressed, and have expressed satisfaction with the level of openness they've seen on issues like regional pricing. A more efficient market design should generally lead to lower costs for all consumers, he added, and specific concerns can be mitigated with design features like internal transmission rights.

A recent engagement session on the incremental capacity auction touched on a number of topics, beginning with the goal of the project itself. Mr. Chapman said the IESO has factored in stakeholders' recommendation that the capacity auction be recognized as one tool in a wider toolbox, alongside regulation and contracts, for meeting the province's future electricity needs.

Key design elements for the incremental capacity auction include the definition of capacity, the balance between 24/7 and on-demand supply, and the need to account for the technical and operational characteristics of different resources, just as the system does today. The engagement also considered performance assessment for capacity resources, and multi-year commitment periods that would allow for resources that require larger or smaller capital investment opportunities that may be needed to support certain resources.

From stakeholder feedback to date, Mr. Chapman said there is general acceptance that the IESO will use the auction process to secure incremental capacity supply, but will not require all resources to participate in the capacity auction market. Rather than pursuing technology-specific procurements, the general sense is that the market will move to a more open platform to allow competition between new and existing assets.

Some stakeholders are still concerned about the risk that rules will change over time, and that decisions made outside the auction will have an impact on the economics of different resources. Mr. Chapman said different markets in North America and Europe have found their own ways to address the issue, and Ontario the IESO will now be doing the same is exploring whether any changes are appropriate in the Ontario context to provide stakeholders with the required confidence to make investments based on revenues from the ICA.

November 22, 2017

Page 5

IESO Technical Panel

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



Formatted: Default Paragraph Font

The Market Renewal Working Group has also struck a new subcommittee on non-emitting resources, both new and traditional. Its three focus areas are how non-emitting resources participate in the market, their impact on wholesale energy markets if they achieve high penetration, and shifts in the commercial market in the context of Market Renewal and provincial cap-and-trade policy. Mr. Chapman said the subcommittee will tap in to other jurisdictions' experience with renewable energy targets credits (RETCs), clean energy auctions, and carbon pricing.

The Market Renewal Working Group continues to meet monthly, and has been very helpful in guiding the IESO through a collaborative engagement process with multiple work streams.

Mr. Dent said he'd never seen such a long list of engagement initiatives and asked about the implications for stakeholder participation and the extra pressure on IESO staff. Mr. Chapman acknowledged the strain, but said what keeps stakeholders and staff going is that the work itself is so interesting and necessary, coupled with a sense of tangible progress. The IESO is fulfilling the promise of collaborative engagement, he said, so stakeholders can see that their voices are being heard and their input to the process is meaningful. That sense of commitment has made it possible to maintain momentum in spite of a fairly heavy work load.

Ms. Griffiths agreed that the subject matter is interesting, and participants in the process can see that the intensity of the commitment will be time-limited. Mr. Samant said the extra work and the time away from his regular job are justified by the fact that "we're designing a new market". The Acting Chair said some stakeholders have expressed concern about fatigue and being pulled away from their regular jobs. This is one of the reasons the IESO is looking at more flexible meeting formats, though she noted that stakeholders tend to appreciate face-to-face engagement.

Mr. Samant asked about the work facilities available to the Market Renewal team. Mr. Chapman said the staff complement for the process is growing, so the IESO is searching for the best option to keep the entire team in a single suite of offices.

Regarding the capacity exports engagement, Mr. Wilbur asked whether the IESO still expects to table draft market rules for Technical Panel consideration in February or March 2018, as indicated on the Active Engagement Initiatives snapshot. Jo Chung, IESO said detailed planning is still under way, and the timeline could shift. Mr. Chapman said the engagement on capacity exports has been under way for some time and has been quite successful.

Mr. Longlade asked about the new subcommittee on non-emitting resources. Mr. Chapman said the group was scheduled to meet December 7 to review its terms of reference and set a work plan for 2018.

Agenda Item 5: Regulation Based Settlement

November 22, 2017

Page 6

IESO Technical Panel

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



Formatted: Default Paragraph Font

Presenters	Rebecca Short Idalin McKenzie
Action	Review Amendment Submission MR-00434 and vote to determine whether this rule amendment warrants further consideration

Rebecca Short, IESO said the purpose of the amendment was to ensure consistency in the market rules as they relate to regulation based settlement. If the Technical Panel agrees to give the amendment further consideration, staff will return with a redlined rule amendment in January, seek stakeholder comments, and ask for a final vote in March referring the amendment to the April Board meeting.

Idalin McKenzie, IESO said the recommended amendment would delete specific references to regulation based settlement in Sections 4.4 and 4.54.6 of Chapter 9, relating to the debt retirement charge and to rural and remote settlement. She explained that, while the function of the regulated marketplace is governed by the market rules, regulation based settlement is structured by regulation. She stressed that the recommended amendment would not change the IESO's responsibility for regulation based settlements, as specified in Section 1.2.1 of the Chapter 9 of the market rules.

Ms. McKenzie noted that Sections 4.4 and 4.54.6 of Chapter 9 were enacted when the market opened, at a time when there were fewer regulation based settlements. The IESO subsequently went through added many such regulated settlements, on issues like global adjustment, regulated hydroelectric generation, regulated nuclear, and rate mitigation charges, among others. But the rules were never updated to reflect them. The amendment would have no impact on the market or the settlement process, but would ensure that any settlements related to the market are consistently defined in the market rules, while settlements related to regulation are defined by regulation.

Mr. Longlade asked why these two particular items had been defined in the market rules. Ms. Short reiterated that they date back to market opening, when there were no other regulation based charges. In 2003, the IESO responded to provincial legislation by introducing Section 1.2.1 of the market rules to address regulated changes. After another bill was tabled in 2004 dealing with regulated electricity rates, the IESO decided to make 1.2.1 its overarching market rule, to eliminate the need for a fresh round of rulemaking with every new provincial bill or regulation. It would have been appropriate to remove Sections 4.4 and 4.54.6 at that time.

Mr. Longlade asked whether there would be any advantage to retaining the two rules, or any unintended consequence of removing them. Ms. Short replied there would be no advantage to retaining them, and that the IESO would retain its responsibilities under Section 1.2.1 of Chapter 9 if Sections 4.4 and 4.54.6 were eliminated.

November 22, 2017

Page 7

IESO Technical Panel

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



Formatted: Default Paragraph Font

Ms. Griffiths suggested clarifying the description of the rule change by referring to the text of the actual rule since the word “regulation” could refer to other market-based services.

Mr. Wilbur said the term ‘regulation based settlement’ might be confusing. The group discussed possible alternatives, including ‘regulatory settlements’ and ‘regulatory requirements’. The Acting Chair welcomed the advice and said staff would come up with alternate phrasing.

Mr. Bieler asked about any negative impacts of retaining the existing sections, adding that the recommended amendment sounded more like an administrative clean-up. Ms. Short said it was indeed a clean-up to address an inconsistency in the market rules that might prompt a participant to ask why two regulatory-type provisions appeared in the market rules, when the majority of regulations are found in the manuals. Mr. Bieler asked whether the change would produce any unintended consequences. Ms. Short said they would not.

Mr. Longlade asked if there was any reason not to move the regulatory provisions in the manuals into the market rules. Ms. Short reiterated that Sections 4.4 and 4.54.6 are the only two that appear in the market rules, and the IESO decided in 2004 to move all regulations into the manuals. Ms. McKenzie said the market rules already state that regulation-based transactions will be settled, so the recommended amendment would ensure that the more granular rules governing those charges are defined in the regulations.

Commented [HS1]: Rebecca Idalin – can you confirm if this was Marty?

Commented [RS2]: I believe it was Marty.

A participant asked whether the recommended amendments would encompass new provisions the Technical Panel might consider in the future. Ms. McKenzie said they would, by removing the need to update or add to the market rules as the government introduces new regulation based settlements or other initiatives.

Mr. Rattray referred to the timeline for the proposed amendment on Slide 6 of Ms. McKenzie’s presentation, noting that that’s the process for adapting any market rule affected by a regulatory decision by the government. He said the recommended amendments would allow for more timely implementation of decisions made by the regulator or the government.

Mr. Samant asked whether the debt retirement charge would be removed from the settlement process as of April 1. Ms. McKenzie said the IESO will no longer be required to settle the DRC, so removing it from the market rules will bear no consequence. She added that provisions for rural and remote settlement have also changed since market opening, shifting from a rate-based charge to a mix of rate-based and tax-based components, with no need to amend the market rules.

Members voted unanimously to accept the Amendment Submission for further consideration.

Agenda Item 6: Station Service Obligations	
Presenters	Josh Duru

Formatted: Default Paragraph Font

November 22, 2017

Page 8

IESO Technical Panel

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



	Christopher Reali
Action	Review Amendment Submission MR-00435 and vote to determine whether this rule amendment warrants further consideration

Josh Duru, IESO said the purpose of the Amendment Submission was to remove the obligation for registered market participants to identify and provide station service estimates, and to place that obligation on facility owners.

Christopher Reali, IESO said recommended amendment would align the market rules with existing processes that are already documented in the market manuals. Station service refers to the power consumed by devices at power stations that enable safe, routine facility operations. The recommended amendment deals with two types of settlement treatment: connection station settlement, and transmission station settlement.

Mr. Reali explained that different devices on the grid serve different purposes. While some of them connect a load or a generator directly to a customer, others are common carriers or switching stations that operate on the transmission side of the system. The section of the rules governing station service obligations addresses three broad issues: identifying, and when appropriate, estimating station service, how settlement treats station service energy, and the allocation of energy to different metered market participants.

The two rules the IESO is recommending for amendment refer to the allocation of station service and the limits on its definition, particularly any load coming from a source that is not station service. A central concern is that the registered market participant may not be the correct entity to take responsibility for the cost of station service.

Mr. Saunders said this issue comes up all the time in situations where Hydro One owns a transformer station, the wholesale meter is a couple of kilometres away, and it becomes important to address differences in meter readings due to line losses. Mr. Reali said that issue is addressed through a separate process for registering metered points and calculating loss factors, and would not be covered by the recommended rule amendment.

Ultimately, he said, the first issue is to determine what constitutes station service and what falls outside the definition. Next, to deal with connection station service, IESO needs an accurate estimate from a registered wholesale meter, provided by the metered market participant designated for the facility. Currently, for the 11 facilities for which there is no designated participant, the obligation falls incorrectly to the registered market participant, who may not necessarily have any connection to the facility. That runs counter to the intent of the rule, which is to assign the obligation to the market participant that owns the facility. In practice, the IESO already addresses this discrepancy in its processes and procedures, but the intent is not reflected in the market rules as they currently stand.

November 22, 2017

Page 9

IESO Technical Panel

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



Formatted: Default Paragraph Font

Mr. Wilbur said there appeared to be an inconsistency in the last two bullet points on page 7 of the slide presentation. Mr. Reali said the intent was to assign the station service obligation to the station owner, whether or not they were the registered market participant. Mr. Young asked whether Hydro One is required to provide a station service estimate for facilities with no registered market participant. Mr. Reali said all market participants are required to respond appropriately, but that expectation is not fully reflected in the current framing of the rule.

Ms. Griffiths asked how the operating principle behind the recommended amendment would apply to a generation asset. Mr. Reali said a generator who was a market participant would also be the facility owner, so there would be no discrepancy.

The 11 market participants that would be affected have been notified of the proposed rule change, and were advised a proposal would be coming forward to the Technical Panel. In response to a question from Mr. Wilbur, Mr. Reali clarified that a couple of the Market Participants were registered as transmitters and generators. Mr. Dent asked whether the received any feedback from the market participants who were notified. The Acting Chair replied that no feedback or comments were received.

Mr. Reali said the recommended amendment will also be brought forward to the December 12 meeting of the Revenue Metering Standing Committee. If the Technical Panel accepts the recommendation for further consideration, a full proposal will be brought back to the Panel January 23 with a recommendation to post it for stakeholder comment. With that feedback incorporated, staff will present a version for Board consideration at the Panel's March 6 meeting.

In reply to participants' questions, Mr. Reali indicated that the IESO conducts regular audits to supplement its estimates of the station service obligation, and that demand response resources are exempt from the obligation.

Mr. Samant asked whether there are any generators where station service is not metered. Mr. Reali said the question applied to generation station service that falls outside the scope of the recommended amendment.

Members voted unanimously to accept the recommended amendments for further consideration.

Agenda Item 7: Sector Information: Operating Reserve

Hok Ng, IESO, delivered a sector information presentation and answered questions on the IESO's operating reserve. The presentation and discussion focused on:

- The objectives of the IESO's four operating reserve initiatives: enabling system flexibility, expanding participation in the operating reserve, and two phases of control action on operating reserve, both related to system operations and efficiency

November 22, 2017

Page 10

IESO Technical Panel

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



Formatted: Default Paragraph Font

- The alignment between the four initiatives and the Market Renewal program, and the need for market manual or market rule changes that might result
- The conditions under which the system might make use of the operating reserve, and the areas of greatest vulnerability where the reserve might be required to supplement regular system resources
- The three types of reserve—10-minute spinning, 10-minute non-spinning, and 30-minute—all based on performance and availability standards set by the North American Electric Reliability Corporation (NERC) and the Northeast Power Coordinating Council (NPCC)
- The process for pricing, scheduling, and optimizing available reserve resources, including about 100 megawatts provided through imports, based on offers from interested market participants
- The process for allocating operating reserve across different parts of the system, after factoring in transmission limitations where they occur
- The opportunity presented by the Market Renewal program to shift the operating reserve toward a more market-based environment, and the improved transparency and cost-efficiencies that should result
- The possibility of enhancing system reliability by increasing the operating reserve beyond the NPCC requirements, and the resulting trade-offs between costs for operating reserve and savings on the commitment side of the system.

Agenda Item 8: Other Business

The Acting Chair reiterated that the Secretariat will correct the minutes of the last meeting as specified, and reminded members to expect the survey on the Panel's effectiveness.

The meeting adjourned 11:32 AM.

Action Item Summary			
Date	Action	Status	Comments
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	

November 22, 2017

Page 11

IESO Technical Panel

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



Formatted: Default Paragraph Font