

# Minutes of the IESO Technical Panel Meeting

Meeting date: 10/11/2020  
Meeting time: 09:00 a.m.  
Meeting location: Video conference

Chair/Sponsor: Michael Lyle  
Scribe: Mitchell Beer / Smarter Shift Inc.

Please report any suggested comments/edits by email to [engagement@ieso.ca](mailto:engagement@ieso.ca).

<b>Invitees</b>	<b>Representing</b>	<b>Attendance Status</b> <b>Attended, Regrets, Teleconference</b>
David Brown	Ontario Energy Board (Observer)	Attended
Jason Chee-Aloy	Renewable Generators	Attended
Ron Collins	Energy Related Businesses and Services	Attended
Rob Coulbeck	Retailers or Wholesalers	Attended
Emma Coyle	Generator	Attended
Dave Forsyth	Consumer	Attended
Sarah Griffiths	Other Market Participant	Attended
Jennifer Jayapalan	Energy Storage	Attended
Robert Reinmuller	Transmitter	Attended
Joe Saunders	Distributor	Attended

<b>Invitees</b>	<b>Representing</b>	<b>Attendance Status Attended, Regrets, Teleconference</b>
Jessica Savage	IESO	Attended
Vlad Urukov	Generator	Attended
Michael Lyle	Chair	Attended
<b>Secretariat</b>		
Agatha Pyrka	IESO	Attended
<b>IESO Presenters</b>		
Jo Chung		
Rob Doyle		
Josh Duru		
Mark Gojmerac		
James Hunter		
Pat Kamstra		
Anna Lafoyiannis		
Jessica Tang		

## Agenda Item 1: Introduction and Administration

Agatha Pyrka, IESO, went over logistical details for the Technical Panel's first session conducted on Microsoft Teams.

The Chair invited comments and questions on the agenda. The agenda was approved on a motion by Joe Saunders.

There were no comments or questions on the minutes of the last meeting. The minutes were approved on a motion by Robert Reinmuller.

#### Chair's Remarks:

The Chair welcomed Emma Coyle of Capital Power as a new Technical Panel member representing generators, and reported that the IESO Board had reappointed Ron Collins to a second three-year term and extended the terms of Joe Saunders and Sarah Griffiths by one year. He thanked Sushil Samant, Bob Bieler and Phil Lasek for their service on the Panel and indicated that a call for nominations for representatives of market participant consumers and residential consumers would be issued in the near future.

Ms. Coyle said she looked forward to the Technical Panel's work over the next year.

The Chair responded to a query at the previous meeting about two action items that had been inserted unintentionally at the end of the meeting minutes. The question of in-camera meetings had previously come up in Panel discussions with members expressing a range of views, but generally agreeing for as much transparency as possible. The ability for in-camera meetings is outlined in the terms of reference, so this action item remains closed. The reference to the Ontario Power Authority in Chapter 1 of the Market Rules was previously identified as a matter for further consideration, but was overtaken by competing priorities. In general, the Chair said most references to OPA were removed from the Market Rules at the time of the merger or shortly thereafter.

The Chair said IESO staff had reached out to Jennifer Jayapalan in response to her question about how storage resources will function operationally within the Capacity Auction.

He noted that the Technical Panel's annual meeting with the Board in December would take place via Microsoft Teams or WebEx, and invited members to submit agenda items over the next couple of weeks.

## Agenda Item 2: Engagement Update

Agatha Pyrka, IESO, reviewed the prospective Technical Panel schedule and referred members to a comprehensive update on active engagements that will be published three to four times per year. She reported that the Technical Panel's 2021 meeting schedule would be circulated by email in late November, and would include further details on the batch schedule for the Market Renewal Program.

Ms. Pyrka discussed two engagements that are expected to bring Market Rule changes to the Technical Panel in the new year.

An engagement on Errors and Omissions Insurance will address the reality that, in a challenging insurance market in 2020, the IESO was unable to obtain errors and omissions coverage. Instead, staff are examining options to manage risk under the Market Rules, consistent with approaches that are commonly used by other independent system operators across North America. Stakeholder engagement is expected to begin in the next month or two, after the IESO has completed due diligence on the available options.

An engagement on IESO Monitoring Requirements Specific to Phasor Data has been under way since June, with the next meeting scheduled for November 19. Ms. Pyrka said stakeholders will receive an

updated implementation schedule for revised monitoring requirements, and the process will likely result in draft market rule amendments.

The day's agenda included an education item on CMSC Recovery for Dispatchable Loads, which was expected to lead to a vote to post in January 2021.

During the IESO Engagement Days on November 18-20, Leonard Kula, IESO Vice-President – Planning Acquisition & Operations and Chief Operating Officer, will present early insights into the Annual Planning Outlook. Participants will also review feedback resulting from the September 28 webinar on the resource adequacy engagement, and discuss the details required to operationalize the framework.

Turning to the Market Renewal Program, the IESO conducted a webinar October 26 on the implementation plans for Market Rules and Manuals for Market Entry and Prudential Security, with stakeholder comments due November 9. The topic was on the day's agenda as an education item, and Ms. Pyrka said votes to post and to recommend the batch of draft amendments was anticipated in the first quarter of 2021.

Engagements on resource-specific reference levels took place or were scheduled for wind, solar, and dispatchable loads October 30, for storage and hydroelectric November 26, and for nuclear and thermal November 27.

By the end of the year, Ms. Pyrka said the IESO expected to post its response to stakeholder feedback on the detailed design of the three calculation engines, as well as the second part of its feedback on Offers, Bids and Data Inputs, Grid and Market Operations Integration, and Market Power Mitigation. Version 2 of the detailed design documents will follow by the end of January, along with a design change tracker reflecting revisions from version 1 to version 2. Stakeholder feedback was due October 30 for the Real-Time Calculation Engine detailed design while feedback on the Pre-Dispatch Calculation Engine detailed design is due December 2.

### Agenda Item 3: Market Rule Amendment Review Process for MRP

James Hunter, IESO, presented the proposal for the Technical Panel's approach to reviewing draft Market Rule amendments under the Market Renewal Program. He said the purpose of the agenda item was not to seek formal approval of the process, but to ensure Panel members understand the proposed plan.

Mr. Hunter recapped discussion at past Panel meetings, focusing on two overlapping challenges: the very significant scope of the draft amendments, and the reality that the entire suite of changes will be interdependent. He outlined the process of provisional approval that will enable Panel members to deliberate and vote on successive batches of amendments, recognizing that they won't be able to reach a final position on the amendments until the entire package is complete.

At every step in the review process, members will have the opportunity to revisit past provisional recommendations if they consider that a more recent batch of amendments might have a bearing on a previous batch. At the end of the process, the Technical Panel will make a formal recommendation to the Board.

Mr. Urukov thanked staff for their effort, adding that the document Mr. Hunter had presented would go a long way in helping the Panel avoid confusion in its decision-making for Market Renewal. He suggested clarifying some of the language that specifies a vote, and asked two questions: what would happen if the majority of Technical Panel members voted against recommending a batch of amendments for Board review, and how subsequent review of previous provisional approvals would be handled in submissions to the Board.

In reply to the first question, Mr. Hunter said each batch of provisional recommendations would receive the same treatment as a single set of Market Rule amendments, with the IESO seeking Technical Panel consensus on how the batch should be handled as if it stood on its own. The Chair noted that the IESO's standard process is to be transparent about the degree of consensus on any recommendation, with members' recorded votes and rationales submitted to the Board. In the potential circumstance where the Panel declined to recommend a batch of amendments, the IESO would forward that information for Board consideration.

Jason Chee-Aloy asked for clarification on the way the Panel's final opinion would be conveyed at the end of the process, and whether members would be voting. The Chair explained that the Panel would hold provisional votes in the earlier stages of the process, then vote on the complete set of draft rules in accordance with its Terms of Reference. He said the confusion may have arisen from Mr. Hunter's initial introduction of the agenda item, in which he indicated the MRP market rule amendments review process document would not be subject to a formal vote.

Ron Collins asked whether Panel members would receive extra time to review earlier batches of recommendations in the series, given the potential interplays across a growing number of batches. The Chair acknowledged the complexity, but also pointed to the time challenges the Panel will face as the Market Renewal process unfolds. Mr. Hunter said the IESO would not expect the Technical Panel or external stakeholders to need or want to review previously reviewed batches at each subsequent stage, since each batch will be designed to be incremental to the previous ones. An example would be a new defined term that would trigger updates in an earlier batch of proposed amendments, but that kind of change would not necessitate a formal review of all past batches.

Mr. Urukov asked whether the process of subsequent review would open up earlier batches for new votes. Mr. Hunter said the specific elements under subsequent review would be logged as an operative element of the current batch, but the totality of the previous batch would remain closed. Where the Panel adopted changes in language, the most recent version would be incorporated in the final batch of amendments subject to formal recommendation.

Emma Coyle asked whether Market Rule amendments would be described primarily in operational terms, or by reference to the larger policy goal of ensuring efficient operation of the IESO market. Mr. Hunter said the focus would be operational, with the goal of ensuring through stakeholder engagement that an amendment reflects the agreed-upon design.

David Brown asked about the timelines and sequence for publishing the batches. Mr. Hunter said the question would be addressed under a separate agenda item at a future Technical Panel meeting.

There were no further questions from Technical Panel members or observers.

## Agenda Item 4: Market Renewal Program Education

Jessica Tang, IESO, introduced the staff presentation on changes to foundational design elements and codification of the design for the Market Entry and Prudential Security batch. Mark Gojmerac, IESO, presented the key design elements that impact this batch, including changes related to the introduction of the Day-Ahead Market and improved scheduling for dispatchable combined cycle facilities and hydroelectric resources. Anna Lafoyiannis, IESO, explained how those elements would be codified in the first batch of Market Rules and Manuals, relating to Market Entry and Prudential Security.

Mr. Urukov asked how the price adjustment for forecast deviations for non-dispatchable loads between IESO day-ahead forecasts and actual consumption in the real-time market would be derived. Mr. Gojmerac said the IESO would determine a per MW rate that reflects the province-wide cost or benefit of meeting differences between actual consumption and day-ahead forecast quantities. The province-wide per MW rate would be applied proportionally to each non-dispatchable load based on their real-time consumption. He said details in the Market Settlement detailed design document would be brought forward to the Panel in the course of the engagement.

Referring to the slide on Day-Ahead Market Settlement and Pricing, David Forsyth said it wasn't previously clear that a load would not be able to participate in Demand Response if it decided to become a price responsive load (PRL). He added that loads have been voicing concern about what they see as a barrier to their concurrent participation in two programs. Mr. Gojmerac said the IESO was still looking into the issue and noted that the IESO is still determining the ability of PRLs to exist within a virtual HDR portfolio as a metered participant, and intended to report back to stakeholders by the end of November. He thanked Mr. Forsyth for his feedback on the issue.

Ms. Tang said the issue is a good example on if we have to make changes in a batch that was previously provisionally approved based on a change that may be required later in the process. This issue would be one that is not addressed as part of Batch 1 but may be brought back with a later batch. This was the process that Mr. Hunter had described earlier in the meeting.

Ms. Lafoyiannis and Mr. Gojmerac presented detailed additions and revisions to Chapter 2 of the Market Rules dealing with virtual transactions in the Day-Ahead Market. Ms. Coyle said she heard virtual resources being described as supply and asked whether there would be any expectation of physical supply into the system. Mr. Gojmerac clarified that virtual transactions are not backed by physical supply, but act as a proxy for the way physical supply might behave in the Real-Time Market. Ms. Coyle expressed concern that the reference to supply might imply a physical resource.

Mr. Collins asked how virtual resources would be treated on days when the system faces maximum demand or physical constraints—for example, if a virtual resource failed on the coldest day of the winter season because it couldn't bring additional supply online. Mr. Gojmerac acknowledged that there could be a constraint, and that in that case there would be no physical backup for the virtual supply. As a result, there might be days when the system needed additional physical power in the Real-Time Market, as well as the assurance that decisions in the Day-Ahead Market would allow that to happen. He said other jurisdictions address this issue by executing a reliability commitment, either within the Day-Ahead Market or shortly afterwards, in which virtual supply is ignored. To the extent that virtual transactions do not signal advance commitments for the right amount of physical supply, he said the IESO would commit additional resources to ensure sufficient physical supply to meet system needs in real-time.

Mr. Collins asked who would bear the cost of backing up virtual resources. Mr. Gojmerac said the responsible market participants would bear the cost of inaccurate predictions, adding that the two-settlement system provides the right discipline for resources to offer the best price possible and drive the correct market signal. Since there is no real-time supply associated with virtual transactions, even though they're settled just like physical transactions, the calculation gets simplified down to the difference between day-ahead and real-time prices. So the market discipline for a virtual trader to provide better predictions would be triggered by a persistent difference between their day-ahead and real-time pricing.

In reply to a question from Mr. Urukov, Mr. Gojmerac confirmed a committed resource could still receive a financial schedule that was higher than the minimum threshold of commitment.

Ms. Lafoyiannis presented changes related to authorization and participation. Mr. Chee-Aloy noted that he hadn't seen very many traders or financial institutions participate in the Market Renewal process or send submissions, and asked whether the IESO had sought input from stakeholders that might have an interest in registering as virtual traders. Ms. Tang agreed that some groups had not been as engaged as they should be, and said the IESO was working on a plan to ensure those stakeholders have an opportunity to provide feedback. Mr. Chee-Aloy noted that virtual transactions have played a key role in coalescing Real-Time and Day-Ahead LMPs in the U.S. market, helping to increase liquidity and convergence and improve market efficiency.

In response to a question from Mr. Collins on reductions to the prudential support obligation available to participants that are market creditors, Ms. Lafoyiannis confirmed that 75% of their credit will be permitted to offset their prudential support obligation for virtual transactions and that these types of reductions are a practice in other electricity markets. The details of the reduction are described in the new Market Rule Section 5D.

Mr. Forsyth asked how the IESO would manage forecasts of real-time consumption, in circumstances where a PRL decided not to bid into the Day-Ahead Market but still ran in real-time. Mr. Gojmerac said that over time the behaviour of PRLs would feed into the forecast model, gradually producing a better understanding of anticipated consumption since the IESO's forecasts are based on historical expectations for similar days.

Mr. Forsyth asked whether PRLs are required to bid into the Day-Ahead Market, and whether non-dispatchable loads are expected to report outages. Mr. Gojmerac said PRLs are required to bid into the day-ahead market if they expect to consume in real-time. Mr. Gojmerac added that all market participants, including non-dispatchable loads are required to report outages above a certain threshold. While the calculation engines are not capable of evaluating these outage requests, the requests are still required to support the IESO's adequacy assessments and outage management processes in advance of market operation. Mr. Forsyth cited another jurisdiction where a load may elect to participate in the Day-Ahead Market. Mr. Gojmerac said there's an expectation that non-dispatchable generators will provide a forecast of what they expect to generate, and the IESO considers it important to apply consistent obligations across different types of market participants, including PRLs.

Mr. Collins asked whether the new pre-dispatch calculation engine would create a mismatch in the new market, and whether it would optimize hydroelectric resources within the transmission limits of the system, for example in parts of Northern Ontario. Mr. Gojmerac said the pre-dispatch engine

would recognize transmission constraints on the system and schedule hydroelectric resources within those limits. Mr. Collins asked whether the calculations would affect the ability to draw energy from those areas and optimize resources. Mr. Gojmerac said improved scheduling and locational pricing would provide a better signal for meeting short and longer-term system needs.

Mr. Urukov thanked the IESO for the additional dispatch data parameters for hydroelectric resources and asked whether the list was now complete and final. He said this topic might be another example of an early batch of Market Rule amendments that would have to be revisited later in the Market Renewal process. Mr. Gojmerac said the IESO had received a lot of stakeholder feedback on this issue, and expected to respond by the end of November.

Mr. Chee-Aloy acknowledged the IESO's engagement with hydroelectric generators to date, but said those stakeholders would have further comments on some of the detail design components. Based on the IESO's responses to stakeholder feedback, it wasn't yet clear whether the parties would reach agreement on the new dispatch data parameters. That question, in turn, could lead into future discussions on governance and decision-making, and he questioned whether any remaining disagreements would fall on the Technical Panel.

Ms. Lafoyiannis indicated the dispatch data parameters may have to evolve and we recognize that some topics would need more than one meeting with stakeholders before that batch comes to the Technical Panel.

Ms. Tang reviewed next steps for this batch of draft amendments, noting that the IESO had provided a reader's guide alongside the draft Market Rules and Manuals to help stakeholders navigate the proposed changes. She said the batch would be brought back to the Technical Panel for a vote to post in 2021.

## Agenda Item 5: Congestion Management Settlement Credit Recovery for Dispatchable Loads

Pat Kamstra, IESO, introduced a draft Market Rule amendment that would enable the IESO to recover congestion management settlement credit (CMSC) payments to dispatchable loads as a result of operational constraints aimed at preventing conditions that endangered the safety of any person, equipment damage, or violation of any applicable law (SEAL). Since 2011, the Market Rules have allowed the IESO to recover CMSC payments from dispatchable generators when operational constraints arise from SEAL conditions, rather than conditions on the grid.

Mr. Urukov asked whether the issue of operational constraints due to SEAL will be addressed in the new market, given that unforeseen events are likely to occur in close to real-time. Ms. Kamstra agreed that SEAL conditions could arise in the future and said the Market Renewal Program will ensure that incidents are addressed in much the same way envisioned under the current amendment.

Ms. Kamstra said stakeholder engagement on the proposed amendment was still in progress. At a meeting on October 27, the IESO discussed the rationale for the changes with market participants and invited feedback by November 17. The current plan is to respond to stakeholder input by the end of the year, provide an update to Technical Panel in January, and recommend a vote to post if it is deemed appropriate at that time.



## Agenda Item 6: Changes to Market Manual 2.3: Market Rule Amendment Procedure

Josh Duru, IESO, presented draft revisions to Market Manual 2.3, dealing with the Market Rule Amendment Procedure. While the IESO does not typically bring draft Market Manual changes to Technical Panel for review, it was considered appropriate to seek input from the Technical Panel for provisions that deal with the amendment procedure itself. He said the purpose of the amendments was to reflect changes in the Technical Panel Terms of Reference, ensure clarity in publishing and reporting timelines, refresh terminology and formatting, and satisfy requirements under the Accessibility for Ontarians with Disabilities Act (AODA) that take effect January 1, 2021.

Mr. Urukov thanked the IESO for the presentation and queried language on page 4 of the draft dealing with authority delegated to the Markets Committee. He said authorities and obligations are supposed to be set in the Market Rules, and asked whether it was appropriate to document a governance process in a Market Manual. He also asked whether the Market Manuals are the right place for any language that expands on the role or functioning of the Technical Panel.

The Chair said the Markets Committee didn't exist when the original passage was written. In the past, the IESO delegated certain decisions to specific Board member(s) on a temporary basis. Today, the Market's Committee is an extension of that but as a standing committee instead which clarifies the specific Board members. Mr. Urukov reiterated his concern about using the Market Manuals, rather than the Market Rules, to define the obligations of the Markets Committee or the Technical Panel. The Chair said the intent was to clarify the roles of different Board members and document a standing procedure that had already occurred on an ad hoc basis in the past.

Mr. Duru said revision would reflect an aspect of the Technical Panel's role that is already documented in the Market Rules. The Chair agreed that the Terms of Reference is the Panel's primary document, adding that the Market Manuals might sometimes refer to the Market Rules or the Terms of Reference for context.

Mr. Duru noted that the amendments also codified the IESO's commitment to publish all non-confidential material submitted to the IESO Board as a procedural step, and set a two-day turnaround for reporting approved amendments to the Ontario Energy Board.

Mr. Urukov asked whether the IESO would still be obliged to practice proper records retention under Section 2.1.2, on page 17 of the revised Manual. Mr. Duru said the text reflected the IESO's current process where an amendment submission is not required when a proposed change has gone through an IESO stakeholder process.

Mr. Urukov asked whether the phrasing of Section 2.1.6, page 18, set up a potential contradiction in the number of business days it would take to provide the amendment submission to the Technical Panel and whether the phrasing could permit a delay beyond five business days. Mr. Duru said the revisions were meant to align the Market Manual with updates to the Terms of Reference and the recommendations of the Advisory Group on Governance and Decision-Making. He and the Chair said the intent was for the IESO to issue any requests for additional information within five business days, and to provide the Technical Panel with amendment submissions from parties other than the IESO within five business days of receipt. The Chair noted that this potential contradiction would be clarified in Section 2.1.6.

Mr. Urukov asked whether Section 2.1.8, page 19, was consistent with language in the Terms of Reference on the Technical Panel's role in determining priority discussion topics. Mr. Duru said the intent would be for the IESO to propose the priority of an item and the Technical Panel to vote on the matter, adding that the revision was aligned with the Terms of Reference.

Mr. Urukov asked whether Section 2.1.22, page 24, was redundant with Section 2.1.25, page 25, on the matter of publishing amendments voted on by the Technical Panel. Mr. Duru clarified the intended difference between the two sections, but acknowledged that the two sections were redundant. The redundant publishing requirement in section 2.1.25 will be deleted.

Mr. Duru said the draft amendments would be posted to pending changes for stakeholder feedback on November 17. The target to publish the final version is December 16.

## Agenda Item 7: Other Business

There was no other business. The Chair welcomed Panel members' feedback on the logistics and usability of Microsoft Teams as a virtual meeting tool.

The meeting adjourned at 11:46 AM.