Minutes of the IESO Technical Panel Meeting

Meeting date: 13/February/2024 Meeting time: 9:00 a.m. - 11:35 a.m.

Meeting location: In-person and Video Conference

Chair/Sponsor: Michael Lyle Scribe: Trisha Hickson, IESO

Please report any suggested comments/edits by email to

engagement@ieso.ca.

Invitees	Representing	Attendance Status Attended, Regrets
Jason Chee-Aloy	Renewable Generators	Attended
Rob Coulbeck	Importers/Exporters	Regrets
Dave Forsyth	Market Participant Consumers	Attended
Jennifer Jayapalan	Energy Storage	Attended
Indra Maharjan	Consumers	Attended
Nick Papanicolaou	Market Participant Consumers	Attended
Forrest Pengra	Residential Consumers	Attended
Robert Reinmuller	Transmitters	Attended
Joe Saunders	Distributors	Attended
Vlad Urukov	Market Participant Generators	Attended
Michael Pohlod	Generators	Attended
David Short	IESO	Attended
Michael Lyle	Chair	Attended
Secretariat		
Trisha Hickson	IESO	Attended



Invitees Representing Attendance Status
Attended, Regrets

IESO Presenters

Dan Alexandru Adam Tschirhart Tim Cary Denise Myers Stephen Nusbaum

Agenda Item 1: Introduction and Administration

Trisha Hickson, IESO, welcomed everyone joining the meeting.

The meeting agenda was approved on a motion by Joe Saunders.

The January 16, 2024, meeting minutes were approved on a motion by Vlad Urukov

Introductory Remarks from the Chair:

Michael Lyle provided an update on the status of new Technical Panel member appointments, indicating that nominations are being accepted for Market Participant Consumers representative, and the IESO is in the process of reviewing applications for the Generator and Energy Services representatives and the recommendations will be provided at the March 4, 2024, meeting.

Agenda Item 2: Engagement Update

Trisha Hickson provided an update on the prospective schedule highlighting an education session in March on the Market Rule Amendments for Chapter 3 and with a vote to post in April, along with a discussion in April on the Market Renewal Program (MRP) Final Alignment batch. Ms. Hickson identified that there is only one engagement session running during the dedicated February engagement days, which is the Central Bulk Planning engagement, however the IESO is hosting monthly engagements for the LT2-RFP which are happening outside of the engagement days.

Agenda Item 3: Transmission Rights Market Enhancements and Platform Refresh – Vote to Recommend

Dan Alexandru provided an update on the Transmission Rights Market Enhancement and Platform Refresh market rule amendments which were posted for comments from stakeholders. A few minor revisions were made to the amendments that reflect the feedback that was received in the last Technical Panel meeting, and no additional stakeholder comments were received. No questions were raised from the panel on this item.

Vote to Recommend was passed on a motion by: Forrest Pengra

Agenda Item 4: Market Renewal Program – Market and System Operations Batch

Adam Tschirhart provided an update on the stakeholder comments received on the Market and System Operations (MSO) batch. Summary:

- The IESO addressed the majority of the feedback and a formal response to all feedback will be posted on March 13th.
- An update was provided on the third-party Dispatch Scheduling and Optimization (DSO) review and next steps for the MSO batch.

The presentation is available for viewing on the Technical Panel webpage.

- Michael Pohlod asked if the IESO would consider removing the bid price threshold in realtime.
 - Jessica Savage, IESO responded that these rules and changes were put in place in response to a Market Surveillance Panel recommendation. The IESO has many years of experience with the threshold and is not aware of any adverse, unintended consequences so there are no plans to change it.
- Vlad Urukov inquired on the timing of when market data will be available for Market
 Participants to calculate the Economic Operating Point (EOP) as he wanted to ensure that
 Market Participants would have the available information to perform their own calculations.
 - Mr. Tschirhart affirmed that EOP values would be available to Market Participants within days of trade date. The IESO will update their responses back to stakeholders to include the timeframe for the availability of data required to calculate EOP.
- Dave Forsyth noted that the IESO did not address a second issue raised by AMPCO in April
 of 2021, where the definition for Price Responsive Loads (PRLs) was changed to indicate
 PRLs were not obligated to submit bids into the Day-Ahead Market (DAM). The definition
 was previously changed and now it appears PRLs must bid day-ahead and take a position
 they may not want to. Mr. Forsyth inquired on the reason for the change and if PRLs are
 required to participate in the DAM. In addition, the windows and ability for loads to change
 from one load type to another do not consider participation in the Capacity Auction and
 could result in a load being penalized.
 - Mr. Tschirhart confirmed that yes, PRLs are required to participate in the DAM and the IESO continues to work through comments received and will address all outstanding concerns. He added that the summary wasn't intended to be an exhaustive list of all comments, and that IESO written responses will be posted on March 13th. Jessica Savage, IESO added the IESO will follow up with Mr. Forsyth on this issue to better understand his concerns following the meeting.
- Robert Reinmuller inquired about the mechanisms that Market Participants can use to test the IESO systems and the implementation impacts of the changes.

- Candice Trickey, IESO responded that there is extensive testing planned with three distinct phases ending with end-to-end testing to simulate participating in the market. The IESO is asking Market Participants to provide feedback on the various scenarios they would like to test. There has been a number of online learning modules posted for Market Participants and the IESO has been actively reaching out to Market Participants to assess their readiness.
- Mr. Urukov asked whether the Market Power Mitigation reference levels would be in place for testing.
 - Ms. Trickey responded that they will be in place for testing for Market Participants that have completed the reference level consultations in time, and if those consultations are not concluded, the IESO will use default reference level values.
- Mr. Reinmuller noted that the Technical Panel members should ensure their organizations have an MRP single point of contact.
 - Ms. Trickey noted that the IESO is reaching out to Market Participants to secure a MRP contact and 75% have provided this information. The IESO is committed to reviewing the list of Technical Panel organizations to see if they have provided their contact information. In addition, Ms. Trickey noted IESO efforts in reaching out to Market Participants in December to survey their readiness in terms of preparing for go-live. The questions addressed items such as ensuring changes are understood by Market Participants and what they plan on testing in the testing environment, to ensure their systems are ready. The IESO received responses from over half the Market Participants that may be impacted by MRP and 80 percent of those are well on their way while the others are still in the process of assessing. There is the remaining 50 percent that the IESO hasn't heard from, but some segments may not be impacted by MRP or may only have minimal impacts. The IESO is continuing with their efforts to assess and ensure all impacted Market Participants establish a contact.
- With regard to slide 14: Third-Party Dispatch Scheduling & Optimization Review, Mr. Urukov asked for further details on what level of information will be included in the report.
- Mr. Nusbaum acknowledged it will contain their test strategy and approach, but stated that
 it is not clear if the report will contain the specifics of the scenarios. It will be a
 comprehensive summary and Mr. Nusbaum noted it would look similar in nature to previous
 DSO Audit Reports. Agenda Item 5: Market Renewal Program Market Power Mitigation
 and Settlements Update

Tim Cary provided an update on the ongoing work on Market Power Mitigation (MPM) since the provisional IESO Board approval. Summary:

- The IESO made significant updates as it relates to the Market Rules, Market Manuals, reference level workbooks and workbooks. The most recent updates have been the result of input from stakeholders through reference level consultations, input from solution development and aligning changes stemming from publication of other batches of draft Market Rules.
- The comment period for stakeholders on the most recent updates, presented in December 2023, closed on January 24, 2024.
- The IESO received comments from two stakeholders which were primarily clarifying questions. The IESO aims to post responses in February. The IESO will include any changes to the MPM draft Market Rules and Market Manuals that result from these comments in the final alignment batch of draft market rules.
- An update was also provided regarding the ongoing procurement activities to qualify potential experts to be available to support the independent review process.

Ms. Trickey noted the IESO's work with the Ontario Waterpower Association and the large hydro operators to better understand concerns and questions on MPM. The IESO made a number of changes to the framework based on feedback from these discussions and addressing some of the group's requests. There were five remaining requests that IESO was unable to agree that a change in the design was warranted based on the available information. For these, the IESO and the group agreed that the IESO would monitor ex-ante MPM post go-live to better understand the impact of concerns before discussing any further changes. The final step with the group is to discuss how this monitoring will take place, which will also be discussed with the broader stakeholder audience. Ms. Trickey also noted that if there are other costs that are eligible under the framework that are missing the IESO is open to addressing them.

- Mr. Urukov asked about the list of remaining requests, and if the IESO is addressing all issues.
 - Ms. Trickey noted that any items removed from the list were those agreed upon by the entire group, and the remaining items are those the group has agreed to monitor post go-live.

Denise Myers provided a settlements update on the modifications to Market Rules, Market Manuals and charge types and equations. Summary:

- In September 2023, the IESO published the updated Market Manual with IESO charge types and equations documents for stakeholder comment.
- In September and December 2023, the IESO proposed modifications to the DAM Balancing Credit, Intertie Failure Charges, and alignment of operating reserve accessibility with MRP design. Four sets of written submissions were received. None of the comments received pertained to design concerns or outstanding issues to be addressed.
- In January 2024, revised Market Rules and Market Manuals were posted to reflect the Sept/Dec modifications to settlement charges, to incorporate stakeholder feedback, and to make other consequential changes.

• Comments from stakeholders are due on February 26, 2024. These amendments will be included in the Final Alignment Batch.

The presentation is available for viewing on the Technical Panel webpage.

- Mr. Pohlod inquired on how MPM is being applied to the Capacity Auction and the timelines for Market Participants to have provided their reference levels.
 - Mr. Cary responded that the MPM framework being introduced by MRP does not apply to the Capacity Auction itself, however it will apply to all dispatchable Market Participants, including those that may secure Capacity Auction obligations. He also noted that reference levels need to be in place in advance of "go-live", preferably towards the end of the year. To meet this timeline, the consultations need to reach a resting point towards the middle of the year, but reference levels can continue to be updated after registration launch and prior to MRP go-live. In April, the IESO will begin discussions with stakeholders around the transition plan.
- Jennifer Jayapalan askedwith regard to timelines whether there is a deadline for when reference levels need to be in place ahead of May 2025.
 - o Mr. Cary responded that there are deadlines in advance of MRP go-live and the IESO is communicating detailed information to participants involved in these consultations. The IESO will capture the reference levels in advance of MRP go-live, with the intent to complete this by the end of 2024. What is captured will represent the information available to the IESO and entered into IESO systems starting at registration launch. After registration launch participants will have the ability to trigger workflows to update reference levels as needed on an ongoing basis.
 - Mr. Nusbaum added that by late April a stakeholder session will be held to speak about transition plans that detail the step by step process for transitioning to the renewed market, including registration go-live, MPM go-live, etc.
- Ms. Jayapalan noted it would be helpful for the IESO to make it clear to participants going through testing what is required to be updated by participants versus what will be provided in the sandbox for testing and when items will be in the sandbox for testing.
 - Ms. Trickey acknowledged that the IESO will make clear what is in the environment to ensure participants know what they need to update versus what is provided for them.
- Mr. Urukov questioned the impact of MPM on settlement of outcomes and how can Market Participants test these impacts.
 - Mrs. Trickey responded that the systems will be set-up as a day in the market where participants will be able to submit bids and offers and the reference levels will be included. The IESO has asked for input on what types of scenarios participants will want

to simulate. What the settlement outcomes look like will be dependent on the Market Participant's actions during the testing in terms of how their bids and offers interact with others. The IESO will endeavour to set-up the conditions to see certain results. Participants will see outcomes based on the conditions set-up in the testing environment and will also see the settlements results for some days. Whether specific outcomes participants may want to see actually occur will depend on the interactions of participants in the system that day.

- Mr. Urukov added that he hoped that the comprehensive settlement data set will be provided that allows participants to understand what is driving certain outcomes.
 - Ms. Myers confirmed that the testing environment will be able to produce settlement statements for the corresponding data files.
- Jason Chee-Aloy acknowledged the inclusion of reference levels in the sand-box environment, but asked whether, aside from testing outcomes to trigger MPM, is the IESO then going to create conditions for dynamic constraints and narrow constraints He noted that to trigger the outcomes, a participant needs to be behind a constraint and this is something a participant cannot provide as it is the IESO which understands the system.
 - Ms. Trickey pointed to the feedback being asked of participants regarding the types of scenarios they want to see, and stated that the IESO will assess to what extent they can create the conditions that will provide the information participants require.
 - Mr. Nusbaum, referred to the deadline for data for the reference level go-live for the end of 2024. He noted that it is beneficial for all participants to supply this and discuss with the IESO by mid-year 2024. If the IESO does not have values from participants, the IESO will need to insert default values.
- Mr. Chee Aloy noted that the last time IESO presented an update on reference level data, wind and solar participants were the highest percentage of participants completing the reference level consultations and noted others were lagging. Mr. Chee Aloy asked if there was an update on the percentage completed to date.
 - o Mr. Cary noted the IESO is working through contacting any newly added wind or solar, dispatchable loads is progressing well, and nuclear is complete. The hydroelectric community is still being worked through given the amount of time focused on design questions and thermal facilities consultations are just concluding. There is an expected ramp up of incoming data in next couple of months. Storage consultations are almost complete. Mr. Cary added the key message is the IESO needs to enter values toward the end of 2024. Once data is entered, Market Participants can make updates.
- Mr. Reinmuller noted that the challenge being raised by LDCs relates to the large billing process downstream that they need to have in place, and they feel the changes will not be

fully aligned with what the IESO has in mind. The IESO needs to continue to engage with the LDCs to ensure the right path forward has been set before it is too late.

- Mrs. Trickey responded that the IESO/OEB and EDA and LDCs have been working together to bring to light issues and we are looking forward to continued engagement with LDCs and to let the IESO know how we can help them address any issues.
- Ms. Jayapalan, commented on the reference levels and the progress made on certain resource types. Regarding storage, there are many small facilities and while these may not be impactful there are also new larger storage facilities that will enter the market in 2025. Has there been any actions taken from the IESO in engaging with this community of new storage facilities that will enter the market in 2025.
 - Mr. Cary noted some updates have been made as a result of conversations with the Market Participants associated with the new large storage facilities and the IESO is continuing to engage with these types of participants as much as they are willing to also reach out to the IESO.

Agenda Item 6: Market Renewal Program – Final Alignment Batch

Stephen Nusbaum presented on the Final Alignment Batch content and redline strategy, proposal for Technical Panel education, approach and schedule, and the transition plan to the renewed market. Summary:

- The Final Alignment Batch Market Rule amendment proposals will be presented as complete chapters which will be redlined against the most recent baseline of the Market Rules.
- Consolidated "Reader's Guides" will be provided with the package.
- The proposal for the approach for engagement with the Technical Panel is to focus on the new content being introduced in the Final Alignment Batch of Market Rule amendments, with the need for any additional topics related to integration between the batches to be identified by Technical Panel members by the end of May.
- Education will begin June 2024, with additional meetings as required.
- The transition to the MRP market is planned to occur in May 2025 and the IESO is in the
 process of creating a detailed, multi-step plan to transition from the current market to the
 new MRP market.
- The Final Alignment approach will be finalized at the April 9th Technical Panel meeting.

The presentation is available for viewing on the Technical Panel webpage.

 Mr. Urukov asked if changes to a previously approved batch will be brought forward for stakeholder engagement.

- o Mr. Nusbaum noted that any changes to a previously approved batch will be visible to stakeholders in advance of posting the final alignment batch. No new content from previously approved batches will appear in final alignment without having been brought to stakeholders in advance. In terms of conforming changes, these don't require stakeholder engagement as they are administrative edits but will be available for written comment. New 'transitional' Market Rules that will be seen for the first time as part of Final Alignment are administrative and transatory in nature to enable the transition from the old market to the new market.
- Mr. Forsyth asked if the IESO had an example of transitional type Market Rules.
 - Mr. Nusbaum noted as an example that the IESO will have rules that will facilitate
 the phasing in of the new rules to support the various phases of the overall
 transition plan, such as the launch of the new Registration parameters later this
 year.
- Mr. Urukov asked how the IESO will show changes in Final Alignment against changes that have already been made to earlier batches as part of the Interim Alignment.
 - Darren Byers, IESO noted the final alignment package will include a red line against the current baseline. Everything that has been provisionally approved or in final alignment will be either black line or red line against the current rule set. A supplemental piece will include a show incremental changes from the most recent provisionally approved versions. A readers guide will also be included for reference.
 - James Hunter, IESO added that previous batches approved as part of the Interim Alignment Batch will not be included as a red line against the current changes in the Final Alignment Batch.
- Mr. Forsyth noted the one-month timeline between the comment period and the vote to recommend and whether it is enough time for the IESO to address the comments.
 - Mr. Nusbaum stated that the IESO is confident that they will be able to address the comments in the proposed timeframe.
- Mr. Chee-Aloy expressed no concerns with the Final Alignment timelines. He noted that the IESO has been receiving comments on the MRP rule amendments to date from a few, key market participants. He asked Technical Panel members to canvas their constituencies to ensure they are aware and reviewing items. Mr. Chee-Aloy noted that generators, especially hydro and gas are more focused on their contract amendments. When reviewing Market Rules and design, generators are attempting to get a handle on economics and the impacts on their revenues while looking at contract amendments side by side with operations and revenue implications. He noted that contracts could impact the Final Alignment schedule depending on how fast contract amendments are signed off and agreed to andthat Market Participants have in the past appealed Market Rule amendments to the OEB on contract

related issues. Mr. Nusbaum replied that the MRP team is working closely with the IESO's contract management group and sees those same linkages.

- Mr. Reinmuller stated that any additional meetings to discuss any issues or topics related to interdependencies between the MRP batches should be added to the calendars now to ensure that Technical Panel members are available in the summer months.
 - Mr. Lyle agreed with the suggestion and indicated that the IESO would follow up on this request.

Other Business

No other business was brought forward.

Adjournment

The meeting adjourned at 11:35 a.m. The next meeting will be held on March 5, 2024.

Action Item Summary

Date	Action	Status	Comments
March 23, 2021	In relation to MR-0448-R00 market rule amendments, the IESO will periodically review the availability of Error and Omissions insurance for negligence.	Open	