

Minutes of the IESO Technical Panel Meeting

Meeting date: 24/January/2023
Meeting time: 9:00 a.m. – 11:10 a.m.
Meeting location: In-person and Video Conference

Chair/Sponsor: Michael Lyle
Scribe: Luisa Da Rocha, 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
Ron Collins	Energy Related Businesses & Services	Attended
Rob Coulbeck	Importers/Exporters	Attended
Emma Coyle	Market Participant Generators	Attended
Dave Forsyth	Market Participant Consumers	Attended
Sarah Griffiths	Demand Response	Attended
Jennifer Jayapalan	Energy Storage	Attended
Indra Maharjan	Market Participant 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
David Short	IESO	Attended
Michael Lyle	Chair	Attended

Invitees	Representing	Attendance Status Attended, Regrets
Secretariat		
Agatha Pyrka	IESO	Attended
IESO Presenters		
Dan Alexandru Adam Cumming Devon Huber Denise Myers Jessica Tang		

Agenda Item 1: Introduction and Administration

Agatha Pyrka, IESO, welcomed everyone joining the meeting.

The meeting agenda was approved on a motion by Jennifer Jayapalan.

The minutes from the December 13 meeting were approved on a motion by Jennifer Jayapalan with the following two amendments:

- Change from the IESO to page 4, second paragraph, third sentence – amended to “The IESO also worked with the Market Assessment and Compliance Division (MACD) to help ensure the market rules reflect and manage any issues they could see arising.”
- Change from Vlad Urukov to page 5, second last paragraph, fourth sentence – amended to “In Section 6.3.1 related to compliance aggregation, it was noted that replacing “facilities” with “resource” appears to be applying aggregation at the resource level, which seems like a deviation from the current practice of applying aggregation at the facility level.”

Introductory Remarks from David Short on behalf of Mike Lyle:

David Short, IESO, wished all attendees a happy new year and indicating there was a lot of work ahead for 2023 noting that the IESO is looking forward to working with the Technical Panel. Mr. Short reminded members of the calendar hold for the joint meeting with the IESO Board indicating that the meeting will be confirmed shortly. Mr. Short thanked the Technical Panel Secretariat Agatha Pyrka for all of her work with the Panel, noting that Agatha will be supporting the Market Renewal Project moving forward.

Agenda Item 2: Engagement Update

Ms. Pyrka reviewed the prospective Technical Panel schedule provided as part of the meeting materials, noting that the Capacity Auction education session shown for March will now take place at the April meeting. It was also shared that a Capacity Auction engagement webinar is taking place on January 26 to discuss the design memos to conclude the design phase of the Capacity Auction enhancements, and the IESO’s response to feedback and an update on the Forward Capacity Auction.

Sarah Griffiths noted that the Capacity Auction educational session was originally scheduled for the January Technical Panel meeting, then moved to March and has now moved to the April meeting, and asked for clarification on the timeline for the approval of the market rules. Adam Cumming, IESO shared that the market rules will be discussed at Technical Panel from April to June, taken to the IESO Board of Directors meeting at the end of June for approval, and assuming approval, the market rules will come into effect at the end of July/start of August. Following a question from Ms. Griffiths on the publication of the pre-auction reports, Mr. Cumming noted that all pre-auction reports will be issued subsequent to the market rules coming into effect in accordance with previous auction timing. Ms. Griffiths shared that this timing delay again produces uncertainty for the market rules for the December auction since they will not be finalized until July/August and the individuals developing portfolios will need to work with what they think will be the market rules versus the final rules. Mr. Cumming indicated that additional details will be provided at the January 26 Capacity Auction engagement webinar.

Ms. Pyrka shared that the January engagement update has been posted.

Agenda Item 3: Enabling Co-located Hybrid Resources

Adam Cumming, IESO, reviewed that the IESO is looking to amend the market rules to enable situations where one or more generators and storage facilities are located at the same connection point and are managed by the same registered market participant. The amendments will allow these resources to better coordinate their bids and offers, particularly where the combined capacity of the resources would be in excess of the connection point limit.

The IESO is proposing two new sub-sections in Chapter 7, Section 3.5.6 which outlines the maximum quantities of energy offers and bids in a given dispatch hour. The two new sub-sections address situations where: (1) any facilities are providing ancillary services, such as operating reserve, black start, regulation control or any other services that provide reliability to the IESO-controlled grid, and (2) none of the facilities are providing any of these services.

Where none of the facilities are providing any of these services, the net bids and offers can exceed the connection point limit as long as they are offset by a withdrawal through a storage facility that reduces the amount of energy to be no higher than the connection point limit. In situations where ancillary services are being provided, the combined sum of bids or sum of offers cannot exceed the connection point limit. This is being done to maintain reliability in situations where one facility needs to be dispatched off resulting in the other facility not being able to be counted upon to provide one of the ancillary services noted above.

Vlad Urukov suggested edits to the following:

1. 3.5.6A and 3.5.6B – last sub-bullets of each section should be re-worded so that they flow from the main lead-in wording for that section
2. 3.5.6A.6.2 – pluralize electricity storage facilities since generation facilities is pluralized
3. 3.5.6B.6.2 – should be re-worded so that it flows better from the main lead-in wording for that section

Mr. Urukov noted that there are no changes to any of the conditions until the final clause and asked if there was a way to structure the changes to avoid repetition. Mr. Cumming indicated that based on discussions with internal legal counsel, it was decided that this information should be presented in three separate sections as opposed to one consolidated section. The rationale for this decision is that

each section applies to a different situation therefore allowing for greater clarity for future change to an individual situation. Mr. Urukov suggested that the wording be reviewed.

Robert Reinmuller reiterated Mr. Urukov's comments on the repetition of the wording but noted that based on Mr. Cumming's explanation, the wording structure makes sense for future modifications.

On a motion by Ms. Griffiths, Technical Panel voted to post the market rule amendment proposal for broader stakeholder comment.

Agenda Item 4: Replacement of the IESO Settlement System

Dan Alexandru, IESO, recapped that the Technical Panel previously recommended, and the IESO Board approved, substantially similar market rules for the replacement of the IESO settlement system (RSS) with an effective date of November 1, 2022. However, beginning late September/early October 2022, it became clear that the IESO was not ready for implementation and subsequently returned to the Technical Panel and IESO Board to supersede the approved market rules for RSS and revert to the original version. The IESO is now returning to the Technical Panel seeking approval to post the RSS market rule amendments for stakeholder feedback, confident in the new implementation date of May 1, 2023.

Mr. Alexandru shared that the market rules package is substantially similar to the previously approved RSS rules. Changes are highlighted in yellow and the main change is the effective date, defined as the date MR-00475 comes into effect. While the effective date will be determined by the IESO Board, the IESO is confident with the May 1, 2023, date. A second change was made to clarify the wording related to the issuance date for the recalculated settlement statements which was done to address comments from the Technical Panel on the previous market rules package.

Activities have been scheduled prior to May 1 to ensure participants are ready for implementation, including the upcoming release of updated versions of previously issued RSS documents and settlement statement examples by February 1. A refresher webinar will be held later in February, followed by a training session for market participant settlement staff in early April.

Mr. Alexandru thanked Forrest Pengra for providing feedback in advance of the meeting on a few editorial/grammatical considerations.

Mr. Urukov asked for clarification of section 6.3.6, particularly subsection b, and the rationale for the change to 22 months. Mr. Alexandru indicated that the change was made to clarify the wording based on feedback from the Technical Panel. Mr. Urukov noted that the wording in subsection b had not been changed, just the number of months. Mr. Alexandru shared that this update was made to ensure alignment with the previous version, but would be reviewed further.

Mr. Urukov, in reference to section 6.3.17, subsections a to g, asked about the significance of the wording change, noting that the rules previously included the number of months "... after the date on which the first invoice for the trading day is issued". With the new wording, Mr. Urukov notes that it is difficult to calculate the "month after", whether it is calculated by the month or 30 days. It was further asked if the change means that it will be coincident with 10 business days when issuing the invoice – that the invoice issuance date will be when the recalculated settlement statement is issued. Mr. Alexandru indicated this change was made to address feedback that the wording should be clearer on when the first statement will be issued. Abbas Zaidi, IESO, confirmed that the wording in section 6.3.17 was made to clarify the publication of the recalculated settlement statement. It was noted that a similar change was made in the financial market, although given that the financial

market is a weekly invoice, it could not be tied to a physical statement invoice schedule. In this case, the invoice will be published on the last calendar day of either the subsequent month in the case of the first recalculated settlement statement, or 22 months for the final recalculated settlement statement.

Mr. Urukov asked about the inclusion of a definition for the RSS commencement date, noting that he has not seen other references in market rule amendments with a similar definition. Mr. Urukov asked where the actual date will be recorded once the market rule amendment goes into effect since it is not included in the amendment itself. Mr. Alexandru indicated that the date will be included in the IESO Board resolution. Mr. Cumming added that all market rule amendments are updated with the effective date and become part of the market rule amendment archive available on the IESO website.

Related to the inclusion of the RRS commencement date definition instead of the actual date, Mr. Urukov asked if the IESO will return to the Technical Panel if there are further delays, or if the inclusion of the definition rather than the date gives the IESO the right to change the implementation date without returning to Technical Panel. Mr. Alexandru indicated that the IESO is confident in the May 1 date, but no, there would not be a need to return to Technical Panel to change the date.

Mr. Reinmuller noted that this is a governance question and asked if it allows for more delays. Mr. Short indicated that this was a similar approach as to how the IESO's Day Ahead Commitment Process was established, and is meant to simplify the process.

Mr. Urukov indicated that this is an IT project that could impact market participants if insufficient time is provided. He encouraged the IESO to be mindful of the impact, indicating that any changes to the schedule need to be made clear well in advance. In relation to the IESO's confidence in the May 1 implementation date, Mr. Urukov noted that the market trials did not go well and a number of issues were flagged that were acknowledged by the IESO, and asked if the market trials will be run again. Phil Bosco, IESO, indicated that the IESO will not be running the same market trials again, but will be posting sample statements and sample data files starting February 1 and will be working with the market trials group to address any challenges in running the samples through their systems. These information samples were not provided previously and are the last piece of the market trials that will allow market participants to insert the samples into their internal business processes. Three weeks has been set aside for the team to address any questions. Mr. Urukov asked if the original market trial issues will be addressed. Mr. Bosco noted that there is a consolidated list of responses. Mr. Urukov noted that market participants do not have confidence that they have the required data set and expressed hope that the process allows for a full run through and analysis.

Mr. Urukov asked if the accessibility of operating reserve changes have been tested with market participants. Mr. Bosco indicated that the operating reserve changes were not part of the market trials, but the charge structure and associated data will be part of the sample files released by February 1. These were not provided in September as part of the market trials.

On a motion by Mr. Reinmuller, Technical Panel voted to post the market rule amendment proposal for broader stakeholder comment.

Agenda Item 5: Market Renewal Program (MRP)

Jessica Tang, IESO, reviewed upcoming documents to be posted, including revisions to the Market Power Mitigation (MPM) market rule amendments provisionally recommended by the Technical Panel to the IESO Board. As part of the Technical Panel's feedback and the Board resolution, it was requested that clarifications be made to some of the language. These revisions will be shared with

the broader stakeholder community in March and Panel members will be notified of the posting. The Technical Panel vote to post and vote to recommend will take place with the final alignment batch, but the revised language and stakeholder feedback will be shared with Panel members for review and feedback as soon as possible.

Ms. Tang introduced today's first question and answer session on the MRP settlements batch, recapping that the materials were posted for stakeholder review on December 1 and an engagement session was held on December 14. Eight technical sessions were recently held, segmented by group, to provide more focused conversations, including a settlement mitigation session. A second Q&A settlements batch session will be held at the March Technical Panel meeting.

Denise Myers, IESO, started the session by discussing the documentation published for the settlements batch, including: Market Rules Chapter 9, Settlements and Billing; four appendices; and seven market manuals, as listed in slide 5.

Mr. Urukov, in reference to one of the new appendices, asked about the concept of settlement mitigation. Ms. Myers noted that the IESO has an ex-post process that evaluates information received from scheduling and uses the information to determine the ex-post mitigation for the three-part offers. Appendix 9.4 Settlement Mitigation is focused on describing the process for ex-post mitigation, and includes information on how the IESO calculate make-whole mitigation. As a result of this process, the IESO will have the data used in the settlements calculation which will then be passed on to the market participant. Appendix 9.4 does not include the details of settlement mitigation as this is included in Market Manual 14. Mr. Urukov asked if this was mostly, but not exclusively, the ex-post part of Market Power Mitigation. Ms. Myers indicated that it is mostly the ex-post mitigation process that is being described, noting that the actual process for make-whole mitigation is included in Chapter 9. Ms. Tang asked the panel members to flag any specific settlement questions for the March session.

Mr. Urukov, in reference to slide 10, asked whether the second bullet under the Real-Time Balancing Settlement, should reference "operating reserve scheduled" instead of "operating reserve offered". Ms. Myers agreed that it should be "operating reserve scheduled".

Mr. Reinmuller, in reference to slide 11, asked whether loads and generators feel that this an appropriate way to do balancing, further asking whether any questions are still being raised about fairness to the different communities. Ms. Myers indicated that feedback was received from one market participant with regards to operating reserve for loads and whether there was a risk that loads are incurring that generators are not. This is being reviewed and the IESO's operations group has been asked for feedback.

Mr. Forsyth, in reference to slide 12, asked where virtual traders will pick their point in a virtual transaction, whether it will be one global point in Ontario or multiple transaction points. Ms. Tang indicated there will be one representative point for each of the nine zones, therefore there will be nine points available for virtuals. These will be presented with the MSO batch in the summer.

Mr. Forsyth, in reference to slide 13, shared that loads are still not happy with the decisions made on price responsive loads, further indicating that since there is still another 1.5 years before the MRP go-live date, there is no reason why this cannot be addressed.

Mr. Urukov, in reference to slide 22, asked for the definition/meaning of a resource not following dispatch instructions, adding that an example would be helpful. Ms. Myers indicated that if a resource, such as a GCG-eligible resource, has been given a dispatch that they are not meeting, the

IESO will look at the AQEI to see if it is equivalent to the schedule. Mr. Urukov asked about deadband in these situations. Ms. Myers noted that typically settlement does not take into consideration deadband, but rather is about a resource's actual injection. Mr. Urukov noted that this will never match the schedule. Ms. Myers indicated that this is not new as it is the case today; however, the team will take back these comments and review the implementation.

Mr. Forsyth, in reference to slide 24, asked who pays for the DAM balancing credit for imports and exports and whether it all goes to real-time balancing consumption or all consumption. Ms. Myers indicated that it is uplifted to loads and exports. Mr. Forsyth asked if day-ahead settlement would then be paying for the real-time balancing charges, noting that in most markets, charges would only be applied to the real-time consumption or any deviation from the day-ahead position. Ms. Myers noted that this will be reviewed.

Mr. Urukov, in reference to the first bullet on slide 24, asked for the meaning of DAM LMP in relation to offers and bids. Ms. Myers indicated that the IESO is looking to see if the offers are increasing relative to their LMP. A resource will be scheduled in the day-ahead based on the day-ahead price. In real-time, if they are increasing their offer such that the IESO is not able to schedule to the MWh that they would have been scheduled in day-ahead, then they will not be paid. Overall, the DAM balancing credit is looking at what you are scheduling in real-time versus in day-ahead, and then looking at the difference in price. Only the portion that was scheduled in real-time will be paid. The intention is if you have offered in such a way that you are pricing yourself out of the market and the IESO cannot schedule you in the day-ahead, then you will not be fully covered for the day-ahead as this will be adjusted. Ms. Myers noted that an example is provided online. Mr. Short added that this is related to bid price.

Mr. Urukov, in reference to the last bullet on slide 27, asked for confirmation that the market participant will be ineligible if they bid \$1,999.99. Ms. Myers noted that this is correct, that they will be ineligible if it is under \$2,000.

Mr. Urukov, in reference to the last bullet on slide 28, asked why the DAM MWP will be adjusted for the forbidden region to avoid over compensation. Ms. Myers indicated that for a resource that has a forbidden region, in the day-ahead it will not be scheduled within that forbidden region, however it will be scheduled outside of the forbidden region. If the payment is calculated based on the economic operating point which is determined where the resource is economic, its economic operating point is not taking into consideration the forbidden region, and therefore that economic operating point will convey different information to the IESO for the calculation of DAM lost cost MWP. Ms. Tang added that a separate presentation is available on hydro make-whole payments from spring 2022.

Mr. Urukov, in reference to slide 29, asked for clarification if OLOC refers to Operating Reserve. Ms. Myers clarified that ELOC is Energy Lost Opportunity Cost and OLOC is Operating Reserve Lost Opportunity Cost. Ms. Myers also noted that there is an error in the equation that will be corrected.

Mr. Urukov, in reference to the middle table on slide 33, asked if the DAM_QSI of 250 is correct since the energy and operating reserve total exceeds what is offered. Ms. Myers noted that Mr. Urukov is correct, adding that the example is conceptual.

Ms. Jayapalan asked how the examples requested at the MRP engagement meetings last week will be shared. Ms. Tang indicated that the examples will be posted on the engagement website and will be part of the engagement feedback.

With regards to next steps, Ms. Tang shared that the market rules and market manuals are posted, along with the presentations with examples used to date. The next Technical Panel Q&A session will be held in March and the team will be able to speak to the key messages from the stakeholder feedback. Panel members are asked to provide any feedback or requests for specific examples in advance of the March meeting. The settlement batch will go before Technical Panel at the May meeting for the vote to post. Prior to this, the vote to post the interim alignment batch will be held at the February meeting.

Agenda Item 6: Terms of Reference

Devon Huber, IESO, recapped that the proposed changes to the Technical Panel Terms of Reference primarily relate to the interactions between the panel and the IESO Board of Directors. At the December meeting, panel members voted to post the Terms of Reference for broader stakeholder comment, and no comments were received. The memo included with this item reviews the feedback received from the Panel members at the December meeting and how that feedback was addressed.

Ms. Griffiths noted that this is a good step forward on the governance work completed a few years ago and that is continuing to evolve.

Mr. Urukov noted that the date needs to be updated on the title page.

On a motion by Ms. Jayapalan, Technical Panel voted to recommend the Terms of Reference to the IESO Board of Directors.

Other Business

None.

Chair's Closing Remarks:

The Chair, Mike Lyle thanked Ms. Pyrka for her contributions to the Technical Panel. The Chair also thanked Rob Doyle for leading the Market Rules team and shared that Mr. Doyle has accepted a position in the IESO's Enterprise Change group.

The meeting adjourned at 10:53 a.m. The next meeting will be held on February 21, 2023.

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	Update provided during November 2021 meeting.