Minutes of the IESO Technical Panel Meeting

Meeting date: 18/April/2023 Meeting time: 9:00 a.m. – 11:15 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 | Regrets |
| 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 | | |
| Trisha Hickson | IESO | Attended |
| IESO Presenters | | |
| Darren Byers | | |
| Barbara Ellard | | |
| Dale Fitzgerald | | |
| Patricia Murray | | |
| Denise Myers | | |
| Jonathan Scratch | | |
| Candice Trickey | | |
| Aaron Kucharczuk | | |

Agenda Item 1: Introduction and Administration

Trisha Hickson, IESO, welcomed everyone joining the meeting.

The meeting agenda was approved on a motion by Dave Forsyth.

The February 21 meeting minutes were approved on a motion by Robert Reinmuller.

Introductory Remarks from the Chair:

Chair Lyle thanked the Technical Panel members for their attendance and remarks at the March 8 meeting with the Board. The Board appreciated hearing from panel members. The Chair noted that it was unfortunate that there was no opportunity for the panel members to interact with the Board given the room setup and that everyone joined the meeting when all of the Board members were already seated, indicating that this will be addressed for the next meeting.

Sarah Griffiths indicated it would be beneficial to have a more fulsome discussion with the Board instead of a Question and Answer type format and that it would be benefical to have the Board share their views with the Technical Panel members.

Jason Chee-Aloy asked if the Board provided any feedback on the meeting. The Chair noted that no specific feedback was received.

Lastly, the Chair thanked panel members for your additional engagement the week of April 3rd on the Capacity Auction outreach conducted by the Market Rules, Engagement and Capacity Auction Teams. I understand that the meetings went very well.

Agenda Item 2: Engagement Update

Ms. Hickson reviewed the prospective Technical Panel schedule provided as part of the meeting materials, noting that the monthly engagement update will be posted to the IESO website later that

week. Ms. Hickson shared that the IESO's monthly engagement day will take place on April 26 with a session on the Capacity Auction enhancements.

Agenda Item 3: MRP Interim Alignment Batch

Jessica Savage, IESO, acknowledged the continued effort to move MRP forward and provided an update on team changes including the resignation of Jessica Tang from the IESO and the promotion of Stephen Nausbaum to Director, MRP Implementation. Stephen and Candice Trickey, Director, MRP Readiness will collectively be responsible for working with internal and external stakeholders to support MRP implementation.

With regards to the action item from the last Technical Panel meeting on price responsive loads (PRLs), Ms. Savage summarized a memo was circulated on April 13, to explain the IESO's position on the tool changes contemplated for the Distributed Energy Resources (DER) Market Vision and Design Project, as well as the changes required to enable PRL participation in a virtual HDR portfolio. It was acknowledged that some panel members have expressed frustration that MRP is not making the changes related to PRL participation raised in Technical Panel discussions and during the IESO's stakeholder engagement days. Ms. Savage noted that the IESO has been consistent in its communication that development of this participation model was not envisioned as part of the MRP scope adding that the memo identifies what is involved in creating this new load participation model, including the high-level software and system changes that would be required.

Ms. Savage acknowledged that the load participation model required to enable the PRL participation in a virtual HDR portfolio is not currently on the IESO work plan. To the extent that previously identified priorities for demand response participation in Ontario's wholesale market have evolved, the IESO is committed to re-engaging with the demand response community to revisit those priorities, targeting the June engagement days.

Ms. Griffiths thanked the IESO for the memo and explanation, indicating that she is looking forward to the discussions in June, and agreed that Technical Panel is not the venue to debate these issues. The June session would be a more appropriate venue for addressing their concerns on these issues. Dave Forysth agreed with Ms. Griffiths comments.

Darren Byers, IESO, recapped that at the last Technical Panel meeting, members voted to post the materials for stakeholder comment, and none were received. Feedback was received earlier from the Electricity Distributors Association (EDA) expressing concern on circularity in some of the defined terms, specifically the defined term "embedded load facility" where there is a reference to a "load facility" which in turn references "facility". This has been reviewed and the IESO sees these defined terms as subsets of one another and therefore no circularity concern. As such, no edits are required to the terms. Minor edits were made to "resource related proposal" to correct for typographical errors.

Ms. Griffiths, referring to section 19.2.6 which states that "load equipment that is associated with a dispatchable load or price responsive load shall not be registered as a demand response contributor", asked if this is because it will be registered as a dispatchable load or as a price responsive load. Patricia Murray, IESO, noted that the load equipment will be linked to a dispatchable or price responsive load resource and the IESO needs to ensure that the same equipment is not represented as part of the contributors in the portfolio. Mr. Forsyth noted that the section does not read very well.

Rob Reinmuller commented that as we progress and adapt to new technologies, terminologies such as "load", "simple load", "load facility" and so forth will need to be reviewed. Mr. Byers noted that Batch 1 had included a defined term "load", but that subsequent review showed that the generic term "load" is used in many different contexts throughout the rules, so the Interim Alignment batch was revising this term "load" to be "load equipment".

On a motion by Jennifer Jayapalan, Technical Panel voted to provisionally recommend the package of market rule amendments to the IESO Board of Directors.

Agenda Item 4: MRP Settlements Batch

Candice Trickey, IESO, recapped that several engagements and meetings have been held for the MRP Settlements Batch, including engagements specific to the different types of participation and that panel members are encouraged to attend these engagements. No questions were received from the Technical Panel in advance of today's meeting, adding that the intention is to return with a broader stakeholder summary after the vote to post.

Denise Myers reviewed the engagement activities undertaken since posting the market rules and market manuals which included a session in December where scenarios were provided to clarify the settlement amounts calculation. Five stakeholder sessions have been held over the last three months where additional scenarios were provided to address feedback from market participants, noting that this feedback did not include the identification of any issues and was mostly requests for clarification or editorial changes, along with questions on market readiness. The IESO will shortly provide a response to feedback.

Vlad Urukov shared that it has been a challenge to implement the RSS changes in advance of market renewal, expressing concern over the number of statements an organization will receive. It was noted that the RSS changes introduce multiple RCSS statements to be received on a specific day of the month, and in the future, MRP will introduce additional changes to the settlement process and the calculation of settlement charges. As a result, a market participant may receive multiple RCSS statements on a single day which is a concern given the six-day notice of dispute (NOD) window. Mr. Urukov asked the IESO whether the NOD window is appropriate given the RSS and potential volume of future settlement corrections that may arise with MRP. Aaron Kucharczuk, IESO, noted that RCSS statements will in most cases be issued as a result of a NOD, therefore the six-day NOD window will not be applicable to RCSS statements because it will have already gone through the NOD process. If there is still disagreement after the RCSS statement, it will proceed to the dispute stage where there is a 20-day window to file a dispute. Mr. Urukov noted that the problem is with the more complex month-end statement where there will only be a six-day window. Ms. Savage noted that learnings from RSS and potential implications for MRP go-live will be considered during the final alignment batch, adding that part of the reason for implementing RSS in advance of MRP is to learn from that experience.

Mr. Chee-Aloy shared that many renewable generators develop and operate storage and most are looking to participate in IESO procurements, however there are still questions to be answered about operating under MRP and the related settlements. Mr. Chee-Aloy asked if the provisional vote is still taking place at the June Technical Panel meeting and if the MRP Market System and Operations market rules are still targeted for release in July. Ms. Trickey confirmed that both are on track.

Agenda Item 5: Capacity Auction Education

Dale Fitzgerald, IESO, recapped that the IESO has been engaging with Capacity Auction stakeholders over the past eight months. The proposed market rule amendments will implement several enhancements, including the capacity qualification process, performance assessment modifications, and other enhancements, such as the Capacity Auction demand curve.

Chuck Farmer, IESO, spoke to the broader Resource Adequacy Framework sharing that for over a decade, the system had a surplus which reduced the risks associated with the effectiveness of procurements and the need to actively manage resource outages, however this is coming to an end. Conditions are much tighter on the grid today and will continue to tighten in the coming years, particularly with the retirement of the Pickering Nuclear Generating Station and the increasing demand for electricity. Assessments have demonstrated these emerging needs for several years, but there is now a sense of urgency.

The IESO has a plan to maintain the reliability of the IESO controlled grid to 2030 which includes: aggressive energy efficiency to mitigate demand; growing the Capacity Auction; competitive processes to reacquire resources coming to the end of their contracts; bi-lateral negotiations with strategic resources; and procurements from new and expanded resources through the Expedited and Long-Term RFP. Assessments show that even when allowing for the uncertainty in timing, these initiatives will deliver the capacity and energy needed, provided that the capacity is available when needed and that the resources perform as expected.

Mr. Farmer noted that as part of delivering the plan, changes are needed to the Capacity Auction which is a key element of the Resource Adequacy Framework. The Annual Capacity Auction is the short-term mechanism used to procure the balance of needs in the more immediate timeframe and it is expected to grow substantially in next few years, through both increased participation and effectiveness. In the past, there have been performance and reliability issues with auction participants which has led to a lack of confidence from some internal IESO parties in this mechanism as a means to meet reliability needs. The IESO's goal with the proposed changes is to position the auction as an effective mechanism to meet system needs by providing the operators with the tools they need now and in the future. Mr. Farmer concluded by sharing the importance of engagement noting the team has tried to reflect feedback in the current designs.

Mr. Fitzgerald acknowledged previous concerns related to engagement, noting significant effort has been made to enhance the process and make it more collaborative. Multiple revisions have been made to the original design proposals as a result of feedback, including: changes to the new capacity testing framework; introducing a solution for HDR resources to manage contributor outages and baselines; changes to mitigate the risks of an unsuccessful capacity test; and, a new component of the HDR capacity qualification methodology called the in-period adjustment which replaces the previous proposal for an augmented availability charge and the ten-times multiplier during times of system need. Where feedback could not be incorporated into the design, the rationale has been provided. With regards to timing, Mr. Fitzgerald noted the package of enhancements has been divided into two streams for the Technical Panel with today's discussion focusing on Stream 1.

In reference to slide 20, Mr. Urukov asked how new resources without historic data will be treated. Mr. Fitzgerald indicated that for new resources without a sufficient amount of historical data, a proxy value will be determined based on the average of all other resources in that resource type. This will be a rolling five-year average and once the resource begins to have data, it will be incorporated into the proxy value. Mr. Forsyth indicated that is not the case for an HDR aggregator. Mr. Fitzgerald agreed and indicated that there is no availability de-rate factor for HDR resources. The rationale for this is explained on slide 21 and 22 of the presentation where it is outlined that for these resources, an in-period cleared UCAP adjustment will be used as an alternative to an availability de-rate. Ms. Griffiths asked what the de-rating factor would be for the first day of a new gas plant in the auction. Mr. Fitzgerald indicated that with the exception of HDR resources, all resources will receive the proxy de-rating factor.

Ms. Jayapalan asked if the industry-wide number will be replaced for new resources after five years. Mr. Fitzgerald noted that the proxy value will be used until the IESO determines there is sufficient data for each resource.

In reference to the allowable exceptions for the capacity test noted on slide 26, Ms. Jayapalan asked what will happen if there is a third party outage in the weeks leading to the capacity test that had a significant impact to the baseline, and whether that would be considered an allowable exception or if exceptions only relate to non-availability during the actual capacity test. Mr. Fitzgerald indicated that if conditions outside of the participants control limits their ability to successfully conduct the test, it may be considered under the allowable exceptions. There is a five-day test window, and it does not have to be completed on the first day, and three separate tests can be done within this window. Ms. Jayapalan indicated that the baseline. Mr. Reinmuller noted that it is known that there will be several Hydro One in the next few years, and this will need to be coordinated. Mr. Fitzgerald noted that the IESO has created this design element with flexibility to ensure resources have options to successfully conduct the tests. If a resource is not able to conduct the test during the five-day window, they will need to notify the IESO and if it is under the allowable exceptions, the test can be rescheduled.

In reference to slide 33, Mr. Urukov asked if the price trigger will be updated more frequently in the future. Mr. Fitzgerald, noting that this was a significant request from the HDR community, agreed that there is value in looking into a more dynamic way to set this price trigger in the future.

Mr. Reinmuller asked if it would be beneficial to bring together a small group of operators and market participants to conduct testing prior to implementing the changes as this would be a good way to see how people will respond and will help build confidence that the system will work in all conditions. Mr. Fitzgerald indicated that there likely won't be scenarios specifically for Capacity Auction resources as they will be operating alongside other resources participating in the energy market and that there is a sandbox environment that allows for virtual testing. Jonathon Scratch, IESO, added there is a testing framework and training will be taking place in the summer.

Ms. Griffiths shared her support for the engagement process that has taken place, noting a lot of good will on behalf of the participants that had concerns with the previous efforts . Ms. Griffiths expressed her and the demand response community's appreciation of the time and effort dedicated to stakeholder engagment noting the changes made based on stakeholder feedback are positive and appreciated. There is still outstanding work in Stream 1 and HDR participants feel it would be helpful to have these additional changes in place. While the IESO suggested the new model be tried for a year, the demand response community knows from their experience elsewhere there will still be challenges. Ms. Griffiths recommended that Technical Panel members attend the Capacity Auction engagements to hear directly from the HDR community on the design elements. Mr. Fitzgerald shared that the collaborative process has been very helpful and has made the designs more robust.

Other Business

None.

Adjournment

The meeting adjourned at 10:29 a.m. The next meeting will be held on May 16, 2023.

| 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 |