Minutes of the Revenue Metering Standing Committee (RMSC)

Meeting date: Thursday November 27, 2025

Meeting time: 10:00 a.m.

Meeting type/location: Virtual (MS Teams)

Chair/Sponsor: Victoria Falvo, Sr. Manager, Wholesale Metering

Facilitator: Jeffrey Huang, Supervisor, Meter Data Management

Objective

Review, inform, and discuss with Metered Market Participants (MMP) and Metering Service Providers (MSP) changes and updates with regards to revenue metering in the IESO-administered markets.

All meeting material is available on the IESO website at: IESO Revenue Metering Standing Committee

Agenda Item 1: Welcome Remarks (Victoria Falvo, Slides 1-3)

1.1 Welcomed everyone to the meeting and provided an overview of the agenda items.

1.2 Provided staffing updates for Wholesale Metering teams, noting rotations to support the Meter Data Management Systems (MDMS) replacement project, and the addition of new employees to maintain operational continuity. MDMS replacement project is currently in the implementation phase.

Agenda Item 2: Administrative Items (Tiberiu Abid, Slides 4-6)

2.1 The June 2025 RMSC minutes are approved. No comments from the committee.

2.2 Action item closed regarding MEC calculations, following a review that confirmed no modifications to the process are required.

2.3 Action item closed following the completion of System Impact Assessment (SIA) webinar on how participants can connect to the grid.

Agenda Item 3: IESO Metering Updates (Jeffrey Huang, Slides 7-11)

3.1 Overview was provided for Ontario's physical and virtual metering population which shows a growing trend.

3.2 Actively transitioning phone-line connected meters to TCP/IP in collaboration with Hydro One and neighboring jurisdictions, with 19 of the 21 remaining phone line meters identified as tie-line meters.

3.3 Increased workload this year driven by higher registration activities, more MTR issuances and more battery-related tasks. Approximately 2600 metering installations (2260 physical and 326 virtual) and over 4500 meters interrogated daily.

Agenda Item 4: MSP Performance Metrics and Registration Updates (Ben Goodchild, Slides 12-26)

4.1 Introduced purpose of MSP performance reports with respect to Market Manual 3 Metering, Part 3.9 Conformance Monitoring.

4.2 Four themes for MSP Performance from Oct 2024 – Sep 2025:

i) Communication and Validations: MSP performance met targets.

ii) MTRs: MSP performance is positive on MTRs resolved within 2 business days of issuance, number of unresolved MTRs by preliminary settlement statement and number of unresolved MTRs by final settlement statement. MSP performance improved in terms of PSS and FSS performance for how many MTRs were unresolved and went past their preliminary and final settlement deadlines.

iii) Registration: MSP performance is positive on EURs approved within 2 business days of issuance and SRRs approved by final settlement. However, timely submission of commissioning reports is still below the target.

iv) Registry Errors and Non-Conformance: There were no registration errors impacting metering data, and no compliance incidents.

4.3 Increase in Registration related activities as well as MTRs issued.

Agenda Item 5: Roundtable Discussion (All Members)

Victoria Falvo (IESO): Introduced the IESO's round table discussion.

Input - Victoria Falvo (IESO):

Introduced IESO's round table discussion and started off the discussion pertaining to Vito's walk-in item on clock drift.

Input - Vito Genovese (Alectra Utilities), a suggestion regarding clock drift:

Highlighted an ongoing issue with clock drift in ION meters, which occurs when power is lost during load transfers causing misalignment of the meter's clock. Previous fixes recommended by Schneider have proven ineffective which was to use lubricant on the battery connection, which often fails to solve the clock drift issue resulting in costly meter replacements instead. Vito proposes installing Automatic Transfer Switch (ATS) and updating the MEC calculations to account for the minimal burden of the device. Feedback is requested on whether this approach is a viable alternative to replacing meters and reducing MTRs issued.

Response – Jeffrey Huang (IESO):

Asks for clarification on Schneider's recommended fix, as IESO previously studied time drift issues and found that meters could drift even while powered due to grid frequency. To mitigate this issue IESO updated requirements for all meter types to allow synchronization either with grid frequency or an internal crystal clock. Using the internal clock maintained consistent time, though behavior after power outages was not verified. Clarified Vito's observation that when meter is continually powered clock drift does not occur.

Input - Patrick Casey (Essex), a suggestion regarding clock drift:

Experienced similar clock drift issues which were traced to a batch of meters with faulty batteries. The problem was resolved by removing those meters from service and resealing them with new batteries as well as applying lubricant. Suggests Vito check whether the affected meters had their batteries replaced, noting that some original batteries failed to last the expected 10-year lifespan.

Response - Vito Genovese (Alectra Utilities):

Confirmed that with resealing meters, batteries are changed and yet the clock drift issue is still occurring.

Input - Hassib El Murdea (OPG), a question regarding conforming meters list:

Asks whether the IESO has plans to update the conforming meters list as found on the IESO website and add additional companies since last update was in 2019.

Response - Victoria Falvo (IESO) & Jeffrey Huang (IESO):

The conforming meter list is updated only when manufacturers request new models or firmware. IESO recently received an application and it's currently under review, which may add a new model to the list.

Input - Vito Genovese (Alectra Utilities), question regarding clock drift:

Would statistics on how many clock drifts occurred across all meter population for batches of meters with clock drift errors over a minute that trigger an MTR be made available? Believes the ATS will eliminate the problem for clock drift errors over a minute that trigger an MTR.

Response – Jeffrey Huang (IESO), Tiberiu Abid (IESO) & Robert Stancu (IESO):

Jeffrey mentioned statistics are available on time resets during overnight interrogations, especially drifts beyond one minute flagged for MTRs and there's a policy for certain ION batches if they drift repeatedly that MSPs may be asked to replace them. Tibby mentioned that this issue was previously addressed under a past RMSC and assumed resolved. Past communications will be shared with Vito for clarity. Robert added that ATS installation doesn't qualify as a meter repair and only prevents extended outages. To truly resolve drift, batteries must be replaced. Robert forwarded the prior IESO response for reference.

Input - Rob Reid (N-Sci) question regarding clock drift:

Asked if ATS would be installed only after clock drift occurred or as a standard approach for all new cabinets. Confirmed two recent cases where Schneider replaced batteries through an RMA, which they identified as the root cause, though effectiveness is still unverified.

Response - Vito Genovese (Alectra Utilities), Robert Stancu (IESO) & Victoria Falvo (IESO):

Vito explained that the goal is to use ATS units as a standard approach to keep meters powered during transfers, preventing clock drift and avoiding unnecessary meter replacements. He noted that Schneider's recommended fix of battery replacement and lubrication has not always been effective, as some meters drift again years later. Robert added that Schneider's letter from 2016 still advises replacing batteries during resealing, and ATS installation does not repair the meter, it only prevents outages. To truly fix the issue, battery replacement remains the manufacturer's solution.

Input - Victoria Falvo (IESO) resource adequacy and the enabling resources project (ERP) at IESO:

Asks Tiberiu Abid for an update on resource adequacy and ERP at the IESO

Response - Tiberiu Abid (IESO):

Explains that resource adequacy focuses on enabling new resources, such as batteries, to connect to the grid, which requires compliant metering installations. Contracts are expedited and long-term procurements are now moving forward, mainly for battery projects. A recent study confirmed that meter disaggregation can be applied to batteries without impacting settlements, which will provide MSPs and battery owners clear guidance on metering requirement. Also outlined ERP progress to transition certain BESS facilities to a single resource as opposed to the current two resource (one load and one generation) model. Implementation is targeted for around 2027. DER aggregation project for integrating distributed energy resources into wholesale markets is currently in planning phase. Stakeholder engagement is ongoing, and updates are available on IESO's ERP webpage.

Input - Vito Genovese (Alectra Utilities) regarding resource adequacy and the Enabling Resources Program (ERP):

Asks if this means batteries will move from two delivery points to one under the new model?

Response - Tiberiu Abid (IESO):

Confirmed that today batteries require two resources and thus two delivery points, but ERP will consolidate them into one resource/ one delivery point, no major metering impacts other than a one-time registration transition.

Input - Patrick Casey (Essex), a suggestion to reduce unnecessary MTRs for like-for-like meter replacements:

Explains that MSPs already notify the metering team to perform final downloads and confirm energization times during replacements. Despite this, an MTR is issued later for a short outage (e.g. 10 minutes), even when alternate meter data is available and MSP approval could be confirmed during the call. Proposes to eliminate MTRs in these scenarios to improve process flow, while still issuing MTRs for communication failures or missing data files.

Response – Jeffrey Huang (IESO) & Victoria Falvo (IESO):

Jeffrey clarified that MTRs are required primarily for audit purposes to document any manual data changes and ensure MSP agreement before settlement. These MTRs do not count against MSP performance metrics but are necessary for compliance. He acknowledged Patrick's point and agreed to explore ways to streamline the process while maintaining audit controls. Victoria Falvo added that external audits review all metering processes every other year, reinforcing the need for documentation. While eliminating MTRs entirely may not be feasible, the team will consider efficiency improvements without compromising audit requirements, especially with an upcoming settlements audit next year.

Agenda Item 6: Closing Remarks (Victoria Falvo)

Victoria thanked the committee for attending and participating in the RMSC meeting, noting the valuable ideas shared during the roundtable. Victoria reminded members that the next meeting is planned for June and will be held in person, offering an opportunity to connect face-to-face.

Action Item Summary

Item	Date	Action	Status	Comments
1	Jun 2025	IESO to internally discuss and study feasibility of streamlining the MEC calculation.	CLOSED	MSPs have suggested on declaration of maximum limits/burden, elimination of MEC requirement on like for like IT replacement or legacy meter changes.
2	Jun 2025	IESO to forward System Impact Assessment (SIA) webinar to MSPs.	CLOSED	IESO will facilitate a webinar end of July 2025. This will cover steps of how participants can connect to the grid.