

# Engineering Units Report

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# Background

- The End-to-End and Engineering Unit Report (EUR) are mandatory steps to register a new meter. These processes are covered in IESO Market Manual 3.2 – Appendix C.
- EUR is the step for MSP to review and approve the accuracy of the metering data obtained from the meter.
- This process is done through online IESO.
- The EUR is dependent on having sufficient voltage and current available for the meter to record data.

# Background (cont.)

- In most cases, there is 'true load' available to the meter during the time of installation. True load must have 0.1A per phase current.
- In cases where 'true load' is not available, MSP is required to perform a secondary load injection test to complete the EUR process. Secondary load injection should be performed with approx. 2.5A per phase current.

# Observations

- At times, we have observed that MSPs are unable to complete the EUR when 'true load' is not present and 'injected load' is required during the meter replacement.
- If the EUR is not completed, the IESO is unable to register the new meter for several weeks.
- Since a registered meter no longer exists, the IESO maintains the settlement process by relying on estimated data (redundant meter or historical estimation) until the EUR is completed.
- To ensure that the EUR is completed, we will issue an MTR the day after the meter was replaced.

# Observations (cont.)

- The MTR will identify the EUR request # and will only be resolved after the EUR is completed.
- MSP performance measures 5 (MTRs resolved in 2 days); 6 (Unresolved MTRs – PSS) and 7 (Unresolved MTRs – FSS) will be impacted based on the duration that the MTR remains unresolved.

# Observations (cont.)

- In IESO issued EUR report, current reading uses energy quantity with 2 decimal place accuracy (I2H).
- True Load EUR performed under 0.24A will appear as “0.00” I2H due to demand to energy conversion.
- Commissioning for meter replacement requires true load with minimum 0.25A per phase current under IESO Market Manual 3.2 – Appendix B.
- Potential misalignment between True Load EUR and commissioning requirement.

# Considerations

- The IESO is in the process of reviewing options for the MSP to perform the secondary injection test / injected load at their respective facilities (on bench injection).
- This will allow for the meter to be populated with injected load prior to delivery and installation. This should alleviate some of the challenges MSP's face with performing the 'injected load' or waiting for "true load" on site.
- For meter replacement with firmware change ("critical"), this concept is easier for the IESO to manage since new meter will have new master file and no overlap between the old and new meter.

# Considerations (cont.)

- However, for 'like for like' meter replacements, the treatment of overlapping data between the old meter and new meter poses some challenges.
- In cases where the MSP is uncertain of 'true load' being present during the meter replacement, they may choose to pre-populate the meter prior to installation (as a safeguard).
- When on site, if 'true load' exists then the EUR date/time will be based on when 'true load' was present (instead of using the on bench injected load date/time)
- We are currently exploring options to accommodate the on bench injection. If MSP's feel there is a benefit, we can further scope out some options.



# Considerations (cont.)

- We are evaluating the current requirement for true load, injected load and possible bench EUR test.
- IESO Market Manual 3.2 – Appendix C will be reviewed and updated if necessary.

# Conclusions

- It is important to complete EURs in order to ensure the meter is registered and billing data is accurate for settlement.
- Failure to do so will result in the issuance of an MTR and the MSP will be subject to the various performance measures.
- The IESO has observed in some cases that EURs are not being completed since 'true load' is not available.
- The IESO is looking into options for the MSP to perform on bench injected load prior to on site delivery and installation of a meter.
- The IESO is evaluating current requirement for all EUR types.

# Questions

