

# EITRP and Other Measurement Plan Requirements

Christopher Reali, Engineering Supervisor,  
Revenue Metering, IESO

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# Background

- Power system facilities are not 100% reliable, including metering installations.
- Power system facilities require maintenance and refurbishment, including metering installations.
- There is a difference, however, between a failure or outage to a metering installation, and a planned outage to a power system facility resulting in the bypass of a metering installation.

# Definition of EITRP

- An EITRP, as per section 1.3.17 of Appendix 6.5 of Chapter 6 of the Market Rules is:

“The emergency restoration plan required in respect of the *outage* or malfunction of or a defect in an *instrument transformer*.”



# EITRP – Relevant Market Rule and Market Manual Provisions

- As per Appendix D of Part 3.2 of Market Manual 3:

## “Guiding Principles

The *market rules* impose the following obligations on the *metering service provider*:

- Resolution of all trouble calls within two *business days*;
- Repair of all metering defects, with the exception of *instrument transformer failure*, within two *business days*;
- Restoration of dial-up access to *metering data* and application of a suitable correction factor, within twelve *business days* of any failure of an *instrument transformer*;
- Replacement of failed *instrument transformers* with Measurement Canada approved devices that conform to the ANSI 0.3 accuracy class [or better] within 12 weeks of the issuance of the related trouble call.”

# EITRP – Relevant Market Rule and Market Manual Provisions

- As per Appendix D of Part 3.2 of Market Manual 3, MSPs are free to develop their own strategy with regard to IT failure. The IESO offers the following strategies as examples:
  - Use Relaying ITs
  - Take Equipment Out of Service
  - Embedded Metered Market Participant agrees to settle with host Metered Market Participant
  - Use of Correction Factor in Temporary Metering Installation for:
    - Loss of one of three CTs or VTs for a metering installation for a single circuit
    - Loss of up to three of six CTs or VTs for a metering installation for two circuits using the common bus connected VT provision
- EITRPs are not intended to be used for situations where revenue metering installations are bypassed by temporary power system facilities for planned work to power system facilities.

# Other Market Rule Requirements

- Chapter 4 of the Market Rules states:

*“2.1.5 No transmitter or market participant shall place into service a new or modified connection facility until the IESO has determined that the connection facility complies with this Chapter.”*

The IESO determines Chapter 4 obligations are met via the Registration Approval Notification Process (the “RAN” process).



# Other Market Rule Requirements

- Chapter 6 of the Market Rules states:

“2.1.1 Subject to section 2.1.5, the *IESO* shall not permit a person to participate in the *real-time markets* or the *procurement markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* in respect of a *connection point* unless the *IESO* is satisfied that:

2.1.1.1 the *connection point* or *embedded connection point* has an associated *metering installation* that, subject to section 4.4, complies with the requirements of this Chapter and of any policy or standard established by the *IESO* pursuant to this Chapter...”



# Other Market Rule Requirements

- Chapter 6 of the Market Rules states:

“2.1.5 The *IESO* may permit a *market participant* to withdraw electricity temporarily from the *IESO-controlled grid* at a *connection point* without a *metering installation* being registered with the *IESO* for that *connection point* under the conditions specified in the applicable *market manual*.”



# Other Market Rule Requirements

- Part 3.2 of Market Manual 3 states:

“1.4.14 Temporary Withdrawal of Electricity without a Registered Wholesale Meter

- Subject to Section 2.1.5 of Chapter 6 of the *market rules* the IESO may permit a *metered market participant* to connect equipment to the *IESO-controlled grid* without a *registered wholesale meter* under certain conditions. The request shall come from the *metered market participant* when an **unforeseeable or unavoidable situation** prevents them from registering the *registered wholesale meters* prior to the connection date. **This process does not qualify for poor planning or changing a commissioning sequence...** [emphasis added]

# Other Market Rule Requirements

- Section 1.4.14 of Part 3.2 of Market Manual 3 continued:  
“...The conditions for granting connection without a *registered wholesale meter* include, but are not limited to:
  - The temporary withdrawal of electricity from the *IESO-controlled grid* will be **strictly for connecting equipment for commissioning purposes and not for load** (e.g. soaking a power transformer for the purpose of commissioning);
  - The *metered market participant* will submit factory test cards of the power transformer they wish to connect;
  - Wholesale *revenue meters* will be in service and registered within 48 hours of connecting; and
  - Once connected, if the *metered market participant* cannot fulfill the conditions outlined above (e.g. the *registered wholesale meters* are not registered within 48 hours and/or draws load without *registered wholesale meters*), the *metered market participant* and the *IESO* will refer the matter to the *Market Assessment and Compliance Division*.

The approval for such a request is at the sole discretion of the *IESO*.” [emphasis added]

# Need for Other Measurement Plans

- The power system is aging and the need for refurbishment of power system facilities is high.
- In order to accomplish power system refurbishments and maintenance, bypass facilities are sometimes required.
- In most cases, bypass facilities are considered new or modified connections to the IESO-controlled grid and require a RAN.
- When bypass facilities also bypass revenue metering installations, there is a need to develop a solution for determining settlement-ready data.



# Hierarchy of Measurement Accuracy

\*For illustrative purposes only



DOC Registered Revenue Metering Installation

MC Approved Revenue Metering ITs + CML Meter, or  
Non-MC Approved Revenue ITs + CML Meter

Non-MC Approved Revenue ITs + Non-CML Meter

Operational ITs (SCADA measurements)

Revenue CTs + Assumed Voltage and p.f. + Meter

Operational CTs + Assumed Voltage and p.f. + Meter

ERAs + Assumed Voltage and p.f.

Historical Estimation

# IESO's Guiding Principles

- Measurement plans of lesser accuracy than a DOC registered revenue metering installation must be quantitatively justified (i.e. technical feasibility and economic prudence from a ratepayer perspective).
  - How was metering accounted for when planning the outage?
  - Why can't DOC registered revenue metering be installed?
  - Why can't a measurement plan of greater accuracy be implemented than what is being proposed?
- The IESO will not sign-off the RAN until such evidence is provided.
- Estimated data submissions of greater than 12 weeks are not acceptable. IESO requires a CML meter to be directly interrogated for outage durations of greater than 12 weeks.
- Min/max estimation is not acceptable to be planned for a period greater than one week; it results in the estimation being made on an estimate.

# Summary

- EITRP requirements are outlined in the Market Rules and Appendix D of Part 3.2 of Market Manual 3.
- Planned power system outages are not triggers for EITRPs.
- New or modified connections to the IESO-controlled grid must receive approval in the form of a RAN before connecting.
- If settlement-ready data is planned through the use of estimates, quantitative justification is required as to why DOC registered revenue metering installations cannot be used (i.e. technical feasibility and economic prudence from a ratepayer perspective).
- The IESO will only sign-off the RAN if a sufficient measurement plan is in place.
- Estimated data submissions of greater than 12 weeks are not acceptable. IESO requires a CML meter to be directly interrogated.