

# Revenue Metering Standing Committee

## Minutes of Meeting

<b>Date held:</b> Nov 24, 2016	<b>Time held:</b> 9:00 AM	<b>Location held:</b> Crowne Plaza, Toronto Airport
<b>Invited/Attended</b>	<b>Company Name</b>	<b>Attendance Status</b> (A)ttended; (R)egrets; (S)ubstitute
JoAnn Turner	Brookfield Renewable Energy Group	A
Muhammad Ali	Ontario Power Generation Inc.	A
John Nodwodny	Ontario Power Generation Inc.	A
Jaspreet Nijjar	Hydro One Networks Inc.	A
Chen Wei (Jack)	Hydro One Networks Inc.	A
Vito Genovese	Horizon Utilities Corporation	A
Rob Henschel	Horizon Utilities Corporation	A
Hans Paris	Guelph Hydro	A
Kevin Myers	Veridian	A
Julie Gash	Veridian	A
Eric Langford	Langford & Associates	A
Ian Howard	Schneider Electric	A
Sera Moffat	Schneider Electric	A
Sandra Pedro	Schneider Electric	A
Christopher Lane	Schneider Electric	A
Jacque Van Campen	Schneider Electric (Victoria, BC)	A
Richard Zaworski	IESO	A
Heather Kline	IESO	A
Yan Bechamp	IESO	A
Mohamed El-Madhoun	IESO	A
Robert Stancu	IESO	A
Tyler Dobbie	IESO	A
Neill Wong	IESO	A
Mohnish Bilimoria	Hydro One Networks Inc.	R
William Cheng	Hydro One Networks Inc.	R
Geetika Tandon	Veridian Connections Inc.	R
Robert Reid	N-Sci Technologies Inc.	R

Scribe: Neill Wong. Please report any corrections, additions or deletions e-mail to scribe.

All meeting material is available on the IESO web site at: [IESO Revenue Metering Standing Committee](#)

RMSC Agenda Items/Minutes:

## **1. Metering Installations Status Update (IESO - Mohamed El-Madhoun)**

### **Presentation by IESO: Metering Installation Status Update**

#### **Discussion/Questions:**

- 1.1 MTR volumes have decreased to a nominal 5000 annually. Significantly, both MSPs and the IESO have seen less communications failures resulting from TCP/IP implementation.
- 1.2 Registration documentation which is out-of-date, or discrepancies as identified from audit findings, will need to be updated. MSPs who have access to the CDMS system will convey requirements to their MMP. Timeframe is open to update/verify records in general, and also at time of meter audit.

## **2a. Measurement Canada Updates (IESO - Mohamed El-Madhoun)**

### **Presentation by IESO: Measurement Canada Updates – MC Consultations**

#### **Discussion/Questions:**

- 2.1 1<sup>st</sup> consultation: MC does not have any specific requirement for any one method of load loss allocation.
- 2.2 However, application of a fixed loss factor cannot be accepted by Measurement Canada which does not have such authority under the Electricity & Gas Act. This will have ongoing implications for embedded metering installations.
- 2.3 2<sup>nd</sup> consultation: Related to specification to indicate size of wire to interconnect meters to conventional instrument transformer under SC-03. Burden assumptions made at 50% were based on electromechanical meters. Tables approach may not be able to cover the various parameter scenarios (e.g. length, wire size, number of wires, meter burden, IT burden). A simplified MEC verification tool in Excel is being developed which will serve to determine minimum wire length in the field.
- 2.4 Ratio point accepts same units of measure. MDMS (Meter Data Management System) calculates the ratio between one input channel to the sum of all channels for each time interval.

## **2b. MC Policy Bulletins (IESO – Yan Bechamp)**

### **Presentation by IESO: Measurement Canada Bulletins**

- 2.5 S-01 – Implementation guide for the application of statistical sampling requirements (Revision 3)
- 2.6 P-S-18 – Provisional specifications for the approval of type of electricity meters. Consultation ended Nov 30, 2016.
- 2.7 E31 – Implementation of policies and specifications relating to standardized electricity and demand LUM. Consultation ended Nov 30, 2016.

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### 3. Future Baseline Update - Dynamic Loss Allocation

#### Presentation by IESO: Future Baseline Update – Dynamic Loss Allocation

- 3.1 Market Manual 3.7 states that transformation losses associated with a transformer at a defined meter point must be allocated based on agreement. (e.g. by fixed factor or allocation by feeder count)
- 3.2 Ratio point accepts same units of measure in each channel. MDMS calculates the ratio between one input channel to the sum of all channels (absolute value) for each time interval.
- 3.3 The ratio can be recalculated between loads for each interval for feeder metering.
- 3.4 Confidentiality between two or more market participants becomes an issue when implementing dynamic loss allocation.
- 3.5 IESO will allocate losses based on kWh units of measure which conforms with MC specifications. This was also based on where the joint working group deliberations landed with MC.
- 3.6 No load losses will be based on fixed losses. (e.g. For feeder outage market participant still pays share of no load losses)
- 3.7 Processes, market manuals and Online IESO will undergo internal review in 2017.
- 3.8 Temporary load losses will require TT and SRR update, and then a reversion back to the permanent load loss state. However, the temporary load loss timeframe will remain indeterminate. Any proposal submission will assist with the IESO's process review.
- 3.9 Dynamic swings in wind and solar generation will benefit from dynamic loss allocation.

### 4. ION Meter Clock Drift (Schneider Electric – Jacque Van Campen, Sandra Pedro, Chris Lane & Sera Moffat; Langford & Associates – Eric Langford)

#### Presentation by Schneider Electric: Meter Clock Drift

##### **Discussion/Questions:**

- 4.1 During loss of power the potential exists for battery voltage not to reach the meter's internal clock which will cause drift between meter time and real time. For ION8000 meters, this affected time stamping of the meter data in Ontario.
- 4.2 A time drift greater than 5 seconds in 2 days without a power event is not normal. This was noted as a takeaway for Schneider.
- 4.3 A circuit board condition of less than 3.6 V caused the oscillator, which drives the internal clock, not to work even though the memory remained activated.
- 4.4 The battery connector circuit indicated a high impedance. Connectors were being supplied from an alternate supplier. It was discovered that a substandard thickness of 4 microinches was plated to the connector instead of the requisite 15 microinches. Additionally, the element cobalt was determined missing which was required to form

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the hard gold alloy. As a consequence the soft gold was rubbed off to expose the nickel underneath which became oxidized. This high impedance path together with a 'fretting corrosion' phenomenon resulted in loss of the internal clock circuit.

- 4.5 A lubricant application will remedy both the friction and the environment effects from the alternate supplier connector. A repair kit with lubricant and factory battery will be provided in 8-10 weeks. A published Schneider battery specification will be issued by December 1<sup>st</sup>.
- 4.6 A list of serial nos. range for the affected meters will be made available as sourced from both the IESO and suppliers.
- 4.7 If a meter seal is broken, the in-service meters will be treated as reverified meters. For up to a two year period, in-stock meters which have not been placed into service can be resealed with the full seal period.
- 4.8 IESO MTRs will begin to document any '450' error indicating a battery failure.
- 4.9 Schneider will share this issue with MC once a date range is established.

**5. ION Meter Seal Expiry (Schneider Electric – Jacque Van Campen, Sandra Pedro, Chris Lane & Sera Moffat; Langford & Associates – Eric Langford)**  
**Presentation by Schneider Electric: Meter Seal Expiry**

**Discussion/Questions:**

- 5.1 ION meters date code is embedded in the serial no. starting with prefix letters 'PT' followed with YY/MM. The day of manufacture is not visible, however, it is captured in the database with the Victoria factory.
- 5.2 Repaired meters updated as per the MC MAL with new metalwork not susceptible to zinc whiskers, will make using the date code ineffective, as the serial no. of the meter still contains the zinc whiskers date code. This date code is rendered invalid for such meters addressed which will now have a 10 year seal period.
- 5.3 The entire serial no. for ION 8600, 8500, 8400 & 8300 models is required as relevant, and not only just the date code. Schneider will publish a serial number list.
- 5.4 ION 8650 has a conditional 10 year seal. Today the meter has a 6 year seal. Upon MC approval, Schneider's sealing contractor Fortis will update their records to the 10 year seal. No revised meter certificate will be issued, and the meter owner will have to update their own records.
- 5.5 ION 8650 V4.20 experienced an issue with MV90 timing out when attempting meter data retrieval. Schneider will be bringing installed Ontario metering installations from V4.20 back to V4.07. IESO will be de-listing the ION 8650 V4.20 from the Conforming Meter List.

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5.6 For any meters remaining in-service upon seal expiry, market participants shall submit a Non-Compliance Event Report into MACD (Market Analysis and Compliance Division) together with its compliance plan.

Action Item Summary				
#	Date	Action	Status	Comments
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