

# Revenue Metering Standing Committee



## Minutes of the [19<sup>th</sup>] Meeting of the Revenue Metering Standing Committee

04 October 2007, 9:00 to 3:00

IESO Monte Carlo Inn, Mississauga

### Attendees:

Vito Genovese, Horizon  
Matt Weninger, Guelph Hydro  
Francois Abdelnour, IVACO  
Kevin Myers, Veridian  
Randy Church, Hydro One  
Peter Hajek, LaPrairie  
Terry Court, HydroOne Networks  
Mark Simpson, Brantford Power  
Jeff Simpson, Wescast  
Vlad Stanisic, OPG  
Al Vance, Horizon  
Selina Chang, Rodan  
Alex Lunycz, Rodan  
Luc Jarry, Utilismart Corp.  
Andrea Dalgarno, OEFC  
Andrew Chen, OEFC  
Jing Lim, OEFC  
Mike Ciaschini, Brookfield Power  
Graham Henderson, Hydro One  
David Grant, Toronto Hydro (part)  
Phil Dubeski, Toronto Hydro (part)  
Frank Pignataro Toronto Hydro (part)  
Bob Hodgson, Toronto Hydro (part)  
Gary Moody, Trilliant Networks (part)  
Rowan Jones, IESO  
Douglas Thomas, IESO  
Mihaela Vasilachi, IESO  
John Mackenzie, IESO (part)  
Robert Stancu, IESO  
Neill Wong, IESO  
John Antonakos, IESO

### Guest Speakers

- Gary Moody, Trilliant Networks
- David Grant, Toronto Hydro

## 1. Items from Last Meeting

- 1.1. IESO continues to work on stakeholdering of Measurement Canada E&GI Act – draft submitted to MC for discussion.
- 1.2. No update on spare compliant meter shortfall.

## 2. Update on seal expiry progress

- 2.1. Presentation by the IESO (02 - Seal Expiry Update.ppt)
- 2.2. Approx. 94% of the 2003/4 seal expiries completed.
- 2.3. Approx. 89% of the 2005 seal expiries completed.
- 2.4. Approx. 77% of the 2006 seal expiries completed.
- 2.5. Approx. 50% of the 2007 seal expiries completed.
- 2.6. Looking ahead to year 2010, 188 of 326 metering installations remain to be upgraded.

## 3. TCP/IP Trilliant – Presentation by Trilliant

- 3.1. Presentation by Gary Moody (3 - TCPIP TRILLIANT - GARY MOODY.pdf).
- 3.2. Company overview and architecture of communications system.
- 3.3. Flexible within public and private networks:
  - 3.3.1. Flexible network solutions (Bell, Rogers, Telus & Iden in Canada)
  - 3.3.2. Provides Circuit-switched (C-S) and/or packet wireless connectivity over the widest range of public and private networks
- 3.4. Flexible connection types (internal or external options).
- 3.5. Network connections support Static IP and Dynamic IP (MV90 operate under Static IP).
- 3.6. Can take advantage of many types of data transfer plans which provides for competitive prices.
- 3.7. Not able to work with satellite cellular connections.

## 4. TCP/IP Horizon – Presentation Horizon

- 4.1. Presentation by Al Vance & Vito Genovese (Verbal presentation).
- 4.2. Overview on system set up using BlueTree wireless network modems with Rogers as network provider. Rate plans can be set for data transfer only, does not require voice plans.
- 4.3. Horizon system set-up provides for multiple communication ports deployed at same time - accessing main meters and possible daisy chain meters at same time. No call collision like phone line connection types.
- 4.4. Very reliable communications realized, no call processor required. No modems required in meters.
- 4.5. MV-90 TCP/IP package required. Minimal set requirements with MV90 xi software.
- 4.6. Cost is based on usage. Flexible rate plans can be negotiated with carriers.
- 4.7. Security was discussed; it may be that there is no more risk than there would be in an analog phone connection.
- 4.8. Question: Has horizon experienced increase cost due to hits from Spam on there network. Ans: Horizon has negotiated flat rate plans and has not tracked issues.

## **5. Toronto Hydro Bulk Metering update – Presentation by Toronto Hydro**

- 5.1. Presentation by David Grant (5 - IESO Presentation - Revenue Metering Standing Committee - R1 - 2007-10-04.ppt)
- 5.2. Presentation covered challenge that Toronto Hydro faces with many metering installation that require compliance upgrades.
- 5.3. Outlined the proposed bulk metering installation sites and the benefits that would be realized by Toronto Hydro and its customers.
- 5.4. Bulk meter installations will have fully redundant metering installations, that is both the main meter and alternate meter has its own instrument transformers.
- 5.5. Comments and Questions
  - 5.5.1. Will legacy meter installations be maintained to Measurement Canada standards?
    - 5.5.1.1 For the immediate future only.
  - 5.5.2. Are there Hydro One owned transmission lines within the bulk metered area?
    - 5.5.2.1 Yes. Meter data adjustments will be required for the transmission charges.
  - 5.5.3. What timeline will be required to complete project if accepted?
    - 5.5.3.1 Eighteen months from scheduled start date of project.
  - 5.5.4. Can other LDC's benefit from this type of plan?
    - 5.5.4.1 High cost of corridor metering may not be cost effective for smaller LDC's.
  - 5.5.5. Discussion on how line losses are too adjusted to keep market whole.
  - 5.5.6. Toronto Hydro will satisfy the OEB.
- 5.6 IESO next steps are to prepare Market Rule amendments for acceptance by Technical Panel.
- 5.7 There were no objections to the proposal.

## **6. Update from Technical Panel – Connection Station Service**

- 6.1. Presentation by the IESO (6 - Connection Station Service - Technical Panel Update.ppt)
- 6.2. Review of Market Rule requirements for Station services in the wholesale market. Outlined Chapter 6 requirements for RWM metering and Chapter 9 requirements for estimate in the absence of a RWM.
- 6.3. Of 57 facilities, there are a total of 63 registered station service estimates. Four of the 63 estimates are greater than 100kW max. The balance is between 2kW and 64kW.
- 6.4. Proposal to Technical Panel was to meter all station services with loads over 100kW. Estimates for loads under 100kW to be based on actual reads from metering installation meeting Measurement Canada requirements.
- 6.5. Three options were discussed outlining advantages and disadvantages. Options A & B were rejected by the Committee with Option C seen as the most effective and economical approach.
- 6.6. The Committee proposed that a Market Rule amendment not be pursued and that estimates continue to be used where the station service is not captured by an RWM, with these estimates based on an MC approved retail meter. There was general agreement and no objection.

## **7. Calling outside IESO window**

- 7.1. Presentation by the IESO (7 - IESO Meter Access Outside Calling Hours Oct 4 2007.ppt).
- 7.2. Reviewed when the IESO will interrogate meters outside its normal call window and when the IESO will notify the MSPs.
- 7.3. This information has been provided to MSPs.

- 7.4. Reasons to make calls outside the call window includes communication port failures and system test or new software and product tests.
- 7.5. The Committee discussed communications in general and encouraged the IESO to adopt new communications technology.
- 7.6. It was requested that the IESO consider notifying external settlement agents as well as the MSPs of any change in the IESO's normal calling.

## 8. Feedback from Working Group

- 8.1. Presentation by the IESO (8 - Feedback from the Working Group.ppt).
- 8.2. Having more than one MSP working in a facility at one time is creating a number of difficult registration issues for the IESO and the MSPs.
- 8.3. The main issues were:
  - Complexity of the process
  - Confidentiality of information.
  - Coordination of the information.
  - Complete and accurate information.
  - Responsibility for coordination of the information.
  - Liability for errors and omissions.
  - Resources
- 8.4. Working group considered option as outlined in presentation with the IESO preferring Option C.
- 8.5. IESO bound by *Confidentiality Catalogue*.
- 8.6. Metering group is working towards meter maps for complex facilities for internal use.
- 8.7. Working group acknowledged for their time and efforts.
- 8.8. Suggestion was made that MSPs approach their prospective MMPs and seek approval to converse with other MSPs on metering installation issues, keeping the IESO out of any confidential information exchange.

## 9. 10 Year seal expiry period

- 9.1. Presentation by the IESO (9 - 10 Year Seal Expiry Period.ppt)
- 9.2. MC announces lengthened initial reverification period of 10 years. (Bulletin E-28 Rev 1 – Aug 28, 2007. See (<http://strategis.ic.gc.ca/epic/internet/inmc-mc.nsf/en/lm05091e.html>))
- 9.3. Applies to meters verified after Jan. 1, 2003
- 9.4. IESO conforming meters in the announcement include:
  - Itron Sentinel
  - Itron Q1000
  - Elster A1RL+
  - General Electric KV2c
- 9.5. IESO interpretation is that the languages of the provisions bind the IESO to whatever standard Measurement Canada uses. Consequently the IESO will extend the approved seal periods to 10 years. Please note the Compliance Division's interpretation may differ.

## 10. Data reconciliation – 10 MW limit

- 10.1. Presentation by the IESO (10 - Data Reconciliation - 10 MW Limit.ppt).

- 10.2. CH 6 Appendix 1.5 requires routine testing 1, 2, or 4 times a year depending on whether the facility has an average annual maximum monthly load of more or less than 10 MW.
- 10.3. The IESO will change to using the average annual maximum monthly load based on the previous calendar year.
- 10.4. This will start on the 1st Jan 2008.
- 10.5. 2008's values will be calculated using 2007's numbers.
- 10.6. No change for the balance of 2007.

## 11. Update from the Technical Panel - Temporary power

- 11.1. Presentation by the IESO (11 - Temporary Power - Technical Panel Update.ppt)
- 11.2. IESO met with Technical Panel on Sept 18, 2007.
- 11.3. The Technical Panel acknowledged and considered the issue but emphasized that it be used for exceptional circumstances only, and not as a substitute for poor planning
- 11.4. Proposed solution identify that MMP's request (via MSP) will be reviewed by the IESO to ensure that all attempts were made to register RWM on time. Only a brief period of energization will be permitted.
- 11.5. No cost recovery of energy or transmission tariffs during the agreed energization period.
- 11.6. IESO preparing a Market Rule Amendment, MR-00340-Q00 for the October 16, 2007 Technical Panel meeting.
- 11.7. Stakeholder review of draft amendment proposals: November 2007 – January 2008
- 11.8. IESO Board approval – Q1 2008

## 12. Un-metered Station Service – Application of Losses

- 12.1. Presentation by the IESO (12 - Non-Metered Station Services - application of losses.ppt)
- 12.2. Per **Market Manual 3.7 - Totalization Table Registration** the MSP must provide, when applicable, the station service factor in kW using IESO-FORM 1311 "Connection Facility Station Service – Not metered by a RWM".
- 12.3. When processing IESO-FORM-1310 in MV-STAR, the IESO creates a virtual meter, with a constant, 5-minute interval value representing the station service factor.
- 12.4. IESO has proposed a revision to Market Manual 3.7 - Totalization Table Registration as follows:

### 12.4.1. 2.3.1 Non-Metered Station Services

The *metering service provider* must provide, when applicable, the station service factor in kW. This factor is submitted using IMO-FORM-1311 "Connection Facility Station Service – Not metered by a RWM". (Chapter 9, Section 2.1A of the *market rules*) IMO-FORM-1311 must be stamped and signed by a registered professional engineer (Professional Engineers of Ontario (PEO)). This value is entered on IMO-FORM-1310 "Totalization Table Form" for submission to the IESO. When processing IMO-FORM-1310 in MV-STAR, the IESO creates a virtual meter, with a constant, 5-minute interval value representing the station service factor.

The main assumptions used in the calculation are as follows:

- secondary estimated load will be calculated as the sum of the rated value of all connected loads of the equipment in-use at the station, in kW;
- if the percentage usage of the estimated load cannot be determined, the default value to be considered in calculation must be 75%;

- **the Station Service load** will be calculated **up to the Define Meter Point (DMP)** as 2.0% higher than usage of the secondary estimated load;
- the value of the estimated load shall be rounded to the nearest kW.

- 12.5. The effect of this proposal will be to simplify the totalization table, a benefiting the IESO and the MSP. It may result in slightly lower losses at the grid but it is expected that this will be a more accurate reflection of the actual losses while still protecting the grid.
- 12.6. There were no objections and the IESO will proceed with the manual change and stakeholdering.

### **13. MV90 xi - update**

- 13.1. Presentation by the IESO (13 - MV-90 xi v15.ppt)
- 13.2. The IESO migrated from MV-90 v5.0 to MV-90 xi v1.5 on September 22, 2007.
- 13.3. MV-90 xi v1.5 was used to interrogate meters on September 23, 2007.
- 13.4. The MV-90 xi testing ran from February 2007 until July 2007
- 13.5. Identified Improvements: Faster report runs Feature enhancements (e.g. emailing reports directly from scheduler)
- 13.6. Group identified a strong need for TCP/IP communications.
- 13.7. Hydro One to formally submit request for testing TCP/IP communications. Hydro will run into analog communications problems after August of 2008.

### **14. Optical ITs - update**

- 14.1. Presentation by the IESO (14 - Optical ITs.ppt)
- 14.2. Measurement Canada Notice of Conditional Approval AE-1534C issued September 26, 2007
- Model NXCT - Current Transformer
  - Model NXVT - Voltage Transformer
  - Model NXVCT - Combined Voltage Current Transformer
  - Model NXCT-F3 – Flexible Optical Current Transformer
- 14.3. Initial verification of IT in factory by MC inspector
- 14.4. Require IT reverification within 8 years time
- 14.5. Reverification occurs in the field by an accredited service provider.
- 14.6. The IESO will permit the use of optical ITs for revenue purposes provided they have Measurement Canada approval.

### **15. Other**

- 15.1. Hydro One confirmed that 2007 Transmission Tariffs rate order has been approved by the OEB and will take effect November 01, 2007