Meter Trouble Report Working Group

Minutes of the 3rd meeting

Date: September 14, 2005
Time: 8:30 am to 12:00
Location: Skymark Boardroom

Attendees

Tuire Pickering; IESO Chairperson (absent)
Al Dharshi; OPG MMP
Vlad Stanišić; OPG MMP (absent)
Mark Passi; Falconbridge MMP (By conference call)
Dave Akers; Newmarket Hydro MMP (absent)
Len Macdonald; Newmarket Hydro MMP (absent)
Art Stokman; Guelph Hydro MMP (absent)
Hans Paris; Guelph Hydro MMP
Rob Henschel; Horizon Utilities (absent)
Patricia Price; Horizon Utilities MSP
Doug Currie, Hydro One MSP
Travis Iwamoto; Hydro One MSP (absent)
Gordon Messervey; Hydro One MSP
Keith Rye; Peterborough MSP
Alex N Lunycz; Rodan MSP
Erin Campbell: Rodan MSP
Jim Baksi; IESO
Rowan Jones; IESO
David Wilkinson; IESO

1. Review of previous minutes

There were no comments provided by the group regarding the previous minutes.

Meter Trouble Report Working Group
Committee Chair: Tuire Pickering
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2. Preliminary results of new process for reviewing Power Outage MTRs.

IESO provided working group members with a daily summary of Power Outage (PO) related MTR statistics for the period from 2005-08-03 to 2005-09-13 (reference handout titled "Impact of New PO MTR Review Procedures"). Results for the first 6 weeks indicate a net reduction in PO related MTRs of 52%. MSP and MMP working group members indicated the results to date of the new MTR review process have been very positive. All members agreed that while the initial results were positive, more time was required to complete a thorough assessment.

During this discussion the following questions were posed that require feedback from the IESO.

2.1 Meters involved in either planned outages (maintenance) or lengthy meter upgrades can generate PO related MTRs and communication related MTRs that are not being closed. The issue appears to be linking the information available in the Hotline Ticket scope of work with the daily MTR review process.

MSPs asked if meters involved in these situations could be put on an exemption list to prevent additional MTRs and also automatic late MTR notices to MMPs. J. Baksi explained changing the automatic notification was not possible at this time. IESO relies on the MSP to explain to their MMP why the automatic notifications are being generated and to manage this issue.

2.2 A. Lunycz explained an example he experienced that involves a case described in the 2005-06-28 document titled "Power Outage Meter Trouble Reports – Proposed Change in Process". The example he gave was an auxiliary powered Main meter where daily communication was successful with measured zeros on all channels, but communication with the Alternate meter failed each day as its modem is phase powered. This is a variation on Case #13, but the PO status in the Alternate meter will not be detected for several days. The issue is the timing between each successful call with the auxiliary powered Main meter and when the Alternate meter is successfully interrogated. IESO staff will discuss this example with the Production Team Leads and recommend a resolution. It is possible additional Case numbers for ZERO, Not Available; Not Available, Zero need to be added to the decision table. IESO will review this prior to finalizing the Decision Table in the PO MTR Review process document at the end of the four month trial period.

2.3 MSPs members stated they had experienced some MTR responses from the IESO that had unclear language. D. Wilkinson requested MSPs to forward these specific examples to either T. Pickering or D. Wilkinson for follow up with IESO staff to improve both clarity and consistency of responses.

3. Results of IESO testing of direct telephone lines

Since the working group's last meeting, the IESO has installed 16 direct analogue telephone lines to a single MV-Comm workstation. The MV-90 database has been updated in a test environment to remove the leading "9" in each Recorder Master File telephone number entry.

T. Pickering has completed some initial manual calling of some "difficult" meters and results to date have been successful. Remote Interrogations of all Registered Wholesale Meters will be scheduled for more comprehensive testing outside of the normal IESO production calling schedule.

4. Review of MTR analysis, patterns, Error codes and number of MTRs

D. Wilkinson provided updated statistics to the end of 2005-08-31. These statistics show the impact of the new review process on PO related MTRs. They also show that Communication related error codes were the next most common error codes in issued MTRs.

5. Communication MTRs

The group discussed what the MSPs' definition of "**successful communication**" with a registered wholesale meter was in terms of common MSP responses to Communication MTRs. The group agreed the definition of "**successful communication**" was that the MSP had contacted the meter with their own MV-90 system and had successfully downloaded data. The discussion included an acknowledgement that the telephone circuit (or other communication channel) required a higher and consistent quality level to sustain a data download session of several minutes than was needed for just an MV-90 "status check" call which might only last 15 seconds.

D. Wilkinson then presented a review Communication MTRs (posted with minutes) which provided background information about the top three types of Communication MTRs:

Code 27 – "CALL NOT ANSWERED" – Avg. 18.3 / working day
Code 22 – "I/O TIMEOUT"- Avg. 6.8 / working day
Code 26 – "SECURITY ERROR" – Avg. 2.2 / working day.

For each of these codes a review of possible causes was discussed with the group.

The following points were raised by group members during the presentation:

a) Consistency of the timing of the public telephone system can cause intermittent telephone circuit reliability problems. A. Dharshi stated OPG's experience had been satellite modems and cell modems were more prone to timing problems and circuit quality than the public switched telephone system. G. Messervey also suggested that MSPs use telephone line sharing devices

that support a programmable delay time period for initial connection as a means to improve reliability.

b) Reasons for call collision were discussed. MSPs and MMPs must be aware of the IESO's exclusive call window from 00:01 to 06:00 EST and ensure that they do not call any wholesale meters during this time period. During this discussion the question was asked why so many different MV-90 systems are calling each meter? The answers given included: MMP settlement verification, 3rd party MDMA / settlement service providers, LDC load monitoring etc.

During this discussion, R. Jones provided a graph to the Working Group members which showed normalized average monthly communication failure rates for meters interrogated by the IESO in 2004 and 2005. The graph indicates a gradual upward trend as the meter population has increased. A copy of the graph is enclosed with the minutes.

c) MSP members asked the IESO if it was possible for the IESO to attempt a manual telephone call first thing each working day for those meters that MV-90 is not able to communicate with automatically. IESO to review this request and report back at the next Working Group meeting.

d) The final slide of the presentation posed the following questions:

1. How do MSPs research Communication MTRs?

   MSPs in attendance stated:
   a) Review of their internal MV-90 system's Communication Log to verify whether MSP's communication (full download of meter) was successful;
   b) Attempt a manual call to the meter and listen to modem for proper operation;
   c) If the manual call fails, dispatch a Meter Technician to site.

2. What options should be researched to reduce the number of Communication MTRs?

   The following suggestions were discussed:
   a) Find a method of reviewing meters affected by Active Hotline tickets to prevent automatic Communication related MTRs from being issued.

   b) Modify method of reporting Code 27 – "CALL NOT ANSWERED" to remove failed calls related to meter upgrades in cases where the new meter(s) have been installed and the IESO is waiting for the signed Site Registration Report(s).

   c) MSP members asked the IESO to analyze the feasibility of not issuing an automatic MTR unless a meter fails to communicate for two successive days.

   During this discussion, R. Jones requested the MSP Working Group members to report back to the next meeting with specific details on the MSP's average nightly MV-90 communication failure rate.

R. Jones and J. Baksi stated that the IESO would consider the implications of a two day delay only after it was satisfied that all possible technical improvements to the metering communication systems and their configuration(s) had been researched and tested.

d) A. Luncyz asked the IESO to supply more information with respect to the specific modems and settings that the IESO's MV-90 system now uses. This will allow MSPs to compare their own MV-90 systems and success rates with the IESO's. IESO to summarize information for discussion at the next meeting.

e) G. Messervey indicated that MSPs would be interested in participating in the process of a detailed review of each of their meters that appears on the IESO's internal "Repeat Offenders List".

f) K. Rye requested that the IESO review of meter Communication statistics be summarized in a manner that allows an analysis of errors for multi-drop (RS-485 bus) metering installations vs. metering installations utilizing telephone line sharing devices. IESO staff to investigate the feasibility of tracking Communication MTRs in this manner.

6. HONI Proposal for Processing Communication MTRs

G. Messervey reviewed HONI's proposal for modifying the workflow process associated with Communication MTRs. Please refer to the flow diagram enclosed with the minutes.

HONI created this proposal to address the issue that resulted when the IESO implemented the new Power Outage MTR review process. This process requires MSPs to analyze MV-90 data files that they manually submit to ensure all valid Power Outage status flags within each data file are confirmed by the MSP.

HONI's staff have reviewed the IESO Settlement Production staff's comments associated with closing many Communication MTRs. This review indicated that the IESO uses the data file supplied by the MSP in very few cases. Due to the fact that HONI's MV-90 system does not normally retrieve data from all of its meters on a daily basis, when the IESO requires the MSP to supply a data file there is a large effort required of HONI's MSP staff to download the meter, build the data file, and submit the file to the MTR system. In most cases the IESO does not review MTR input from the MSP until the following business day. If the meter in question is successfully downloaded by the IESO's MV-90 system before the MTR response is reviewed, then the data file submitted by the MSP is not used.

The other MSP working group members indicated their experience is similar and that the data file is not used in a high percentage of the cases. They indicated there would be a significant time

savings if data files were only a requirement for "true meter failures" as opposed to meters that exhibit inconsistent data retrieval with the IESO's MV-90 system.

G. Messervey also described a typical scenario related to this issue in which the IESO's MV-90 system is unable to communicate with a meter on a Saturday morning. An automatic MTR for communication is issued. However, before the MSP is able to respond to the MTR on the next working day, the IESO's MV-90 system successfully downloads data from the meter on either Sunday morning or Monday morning. The MSP must still work with the IESO to close the automatic Communication MTR. However supplying a data file up to the time of the call failure will have no benefit to the IESO. HONI reviewed the frequency with which this was occurring and found that on one recent weekend 60% of the meters that were issued an automatic Communications MTR on either Saturday or Sunday morning had been successfully downloaded by the IESO by Monday morning.

IESO staff agreed to review HONI's proposal and come back to the Working Group with comments at the next meeting.

7. Next meeting

Date: Thursday October 20, 2005 from 8:30 am to Noon
Location: **Clarkson System Control Centre**, Room 301

Please confirm your attendance via e-mail prior to Thursday October 13, 2005