

Metering Installation Audits

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Neill Wong, Settlements, Metering Installations



MI Audit Finding Class

Audit finding classes are set up as per:

1. DOC/AMIS (Compliant or Alternative meter standard)
2. EITRP (Emergency IT Restoration Plan)
3. EU (Engineering Units) Report
4. Factory IT Test Cards
5. Field Wiring/Ground Wiring
6. Form 1299
7. Form 1300
8. Form 1304
9. Form 1311

MI Audit Finding Class

Audit finding classes are set up as per:

10. Installation Wiring Diagram
11. Load Duration
12. MC Inspection Certificate
13. MEC (Form 1039)
14. Meter Program Specs
15. MI Commissioning
16. Nameplate Data (CT & VT)
17. NOA (Notice of Approval)
18. Portable Test Equipment

MI Audit Finding Class

Audit finding classes are set up as per:

19. Portable Test Equipment
20. Power Transformer Test Data
21. Reconciliation/Spot Check
22. Record of Installation
23. Seal/Security
24. SLD (Single Line Diagram)
25. SSLA (Form 1040)
26. Station Service
27. Totalization Table/SRR

MI Audit Finding Summary

1. Seal/Security – MP sealing & security obligations were not met.
Follow-up action: IESO working through with the MSPs
2. Station Service – Annual checks to confirm that estimated SS still valid was not performed
Follow-up action: IESO continuing SS audits in 2011
3. Nameplate Data (CT & VT) – Could not visually verify IT nameplates located on top of HV structure or inside energized switchgear
Follow-up action: IESO position requires MP/MSP plan to address
4. Remaining audit classes were not settlement impactful but do warrant review/rationalization

MI Audit Finding Summary

1. EITRP – need to update MMP contact info; required plan to reflect power transformer isolation; no EITRP found on file
2. EU Report – PTE calibration out of date range
3. Factory IT Test Cards – no test cards provided for audit
4. Field Wiring/Ground Wiring – cabinet door; meter backplate; wire insulation crimped
5. Form 1299, 1300, 1304 – Forms not found in archives at audit
6. Form 1311 – source for station service estimate not supported
7. Installation Wiring Diagram – not provided for audit; indeterminate CT/VT ratios in use; black tracer instead of white; EWD incomplete; not for in-service meter models
8. Load Duration – CT operating below 10% nominal
9. MC Inspection Certificate – Not found/not provided at audit; no calibration values included

MI Audit Finding Summary

10. MEC (Form 1039) – supporting documentation/supporting calculation not provided; #10 instead of #8 used in calculation
11. Meter Program Specs – not provided; incomplete; saved program file instead of actual program file provided
12. MI Commissioning – Found #8 vs #10 gauge; commissioning incomplete; no wiring diagram; load duration <10% for 80% time; no Powermate S/N; no test certificate; no IT ratio check
13. Nameplate Data (CT & VT) – unable to access; different model ITs than recorded
14. NOA – auxiliary PTs found/no NOA
15. Portable Test Equipment/ISMA – Test report did not reference PTE S/N; calibration report was not provided
16. Power Transformer Test Data – Test card not provided for audit
17. Reconciliation/Spot Check – No IT spot checks provided; incorrect VT ratio recorded

MI Audit Finding Summary

18. Record of Installation (Form 636) – meter installation data incorrect or was not recorded
19. Seal/Security – padlocks were unlocked; marshalling box seal broken; seal log not up to date; no seals on Marwell base; test blocks not covered; sealing wire not tight; fuse block not sealed; water in cabinet; CT & PT terminal strip not sealed; CT junction box not sealed; marshalling box seal missing; padlocks found cut
20. SLD – Meter point was deregistered; No NOA reference; incorrect meter models listed; Main/Alt meters from station service supply
21. SSLA (Form 1040) – No supporting calculations provided; T1/T2 S/N were reversed
22. Station Service – no supporting documentation to substantiate estimate; need to confirm monthly reading source and frequency
23. Totalization Table/SRR – Updated MEC applied to revised TT. Completed.

2011 MI Audit Program

- IESO conducts office & field compliance audits of registered metering installations
- 2011 audit criteria:
 - Large GS & TS, CGS, CTS, MTS (e.g. Municipal Transformer Station)
 - Station Service Estimates (e.g. exposed to IESO Grid)
- Pool of eligible meter points to audit in 2011 ~ 600
- Selected meter points to audit in 2011 = 108
- Target 5% of all metering installations

2011 MI Audit Program

- Proportioned by meters registered by all MSPs
- Greater Toronto Area, Eastern Ontario, Southwestern Ontario, Northwestern Ontario (Rainy River District)