

Final

ISO Rule 502.10 Working Group Meeting Notes

Meeting Date: June 29, 2017
Time: 10:00 am – 2:00 pm
Location: AESO office, 2539 Meeting Room

Participants

| Company |
|---------------|
| AESO |
| AltaLink |
| ATCO |
| AUC |
| ENMAX |
| EPCOR |
| FortisAlberta |

1. Review of Notes from the Third Meeting

The AESO sent the second meeting notes to the Work Group (WG) members on May 8, 2017. No comments were received from the WG members.

2. Review of Action Items

There was one action item identified at the third meeting as follows:

All attendees are requested to bring any recommendations to the next meeting pertaining to the following items regarding in-situ test:

- The test frequency.
- MW class.
 - How to determine MW class? By average or capacity?
- How to report to AESO? Annual report or otherwise?

AltaLink sent AESO a Pie chart as a response to the Action Item on June 26, 2017. AESO included it in the meeting agenda for discussion. (See Forth WG Meeting Agenda.docx which was sent to WG member on June 27, 2017).

AltaLink explained the Pie chart which bases on their historical stats. 79% of meters are tested every 3 years and 13% every six years.

ENMAX: All meters are tested every two years.

Working Group notes the following:

- CT ratio could be changed by someone without notifying the metering team.
- The most prohibitive factor for meter test is the cost, travelling and stopping electricity supply.
- S-E-YY item 10.8 requires CT to be tested whenever a meter component is changed.
- S-E-YY has the minimum request to cover every situation. AESO can use it. Utility can do the test more often.

All attendees discussed and recommended:

- Average loading level is used as meter class base – defined as annual kWh divided by 8760 (hour) as per the existing standard
- Bring 5 meter MW classes into 3 meter MW classes (Appendix 5 table);
 - Less than 5 MW
 - 5 up to 20 MW
 - 20 MW +
- All micro-gen tests must meet Measurement Canada requirement.
- New ISO rule respecting metering test applies only to the services greater than or equal to 5 MW ($\geq 5\text{MW}$).
- Metering system owner could monitor metering data by comparing with SCADA data monthly.
- Meters that do not have load do not need to do situ-test.

3. What should be included in 502.10? - continued

6.0 Metering System Services

- **Section 6.4.3 Testing**

All attendees agreed to recommend:

- Revise items (h) to send AESO an in-situ Metering System Test Form as AESO requires.
- Revise item (i) to file AESO an annual report of outstanding un-tested meters in last year, annual failures tests and a mitigation plan in first quarter of next year.
- Remove items (j) and (k) from the new ISO rule 502.10.
- Merge item (l) into other section in the new ISO rule 502.10;

- Remove items (m) from the new ISO rule 502.10.
- **Section 6.4.4 Restoration**

All attendees agreed to recommend:

 - Retain item (a), (b), (c) and (d), the Metering System failure definition, into the Consolidated Authoritative Document Glossary (CADG).
 - Revise the time frame for item (e) to (g) from five (5) business days to thirty (30) business days.
 - Retain item (e) to (g).
- **Section 6.4.5 Alternative Metering Data Sources**

All attendees agreed to remove this section from the new ISO rule 502.10.

Appendix 1 Schedule of Accuracies for Meters Approved under Section 9(3) of the Electricity and Gas Inspection Act (NON-Dispensated Metering Equipment)

As previous all attendees agreed that this appendix will be consolidated into requirements with items 6.3.3 (g) and (h) by removing the requirement for Metering Point capacity below 1.0 MVA. See <20170428 Rule 502.10 3rd WG Meeting Notes Final.docx>.

Appendix 2 Schedule of Accuracies for Meters Approved under Section 9(3) of the Electricity and Gas Inspection Act (Dispensated Metering Equipment)

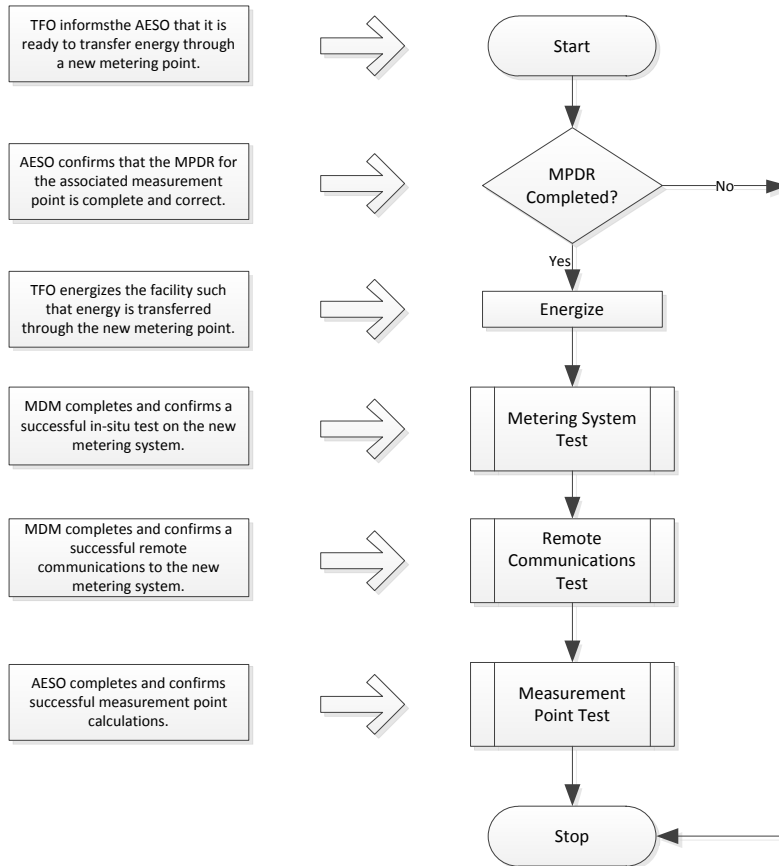
All attendees agreed to recommend removal of this appendix from the new ISO rule 502.10. See <20170428 Rule 502.10 3rd WG Meeting Notes Final.docx>.

Appendix 3 Generally Accepted Utility Metering Practices

All attendees agreed to recommend removal of this appendix from the new ISO rule 502.10.

Appendix 4 End-to-End Commissioning Processes

All attendees agreed that this appendix will be part of ID, and will look like the following graph:



Appendix 5 Metering System In-Situ Testing

- **1. Metering System Testing Frequency**

All attendees agreed to merge the table current five (5) MW Classes into three (3) MW classes. They are:

- Less than 5 MW
- 5 up to 20 MW
- 20 MW +

- **2. Metering System Testing Procedures**

All attendees agreed to remove this section from the new ISO rule 502.10.

- **3. Metering System Testing Reporting**

All attendees agreed to remove this section from the new ISO rule 502.10.

- **4. Metering System Testing Compliance**

All attendees agreed to remove this section from the new ISO rule 502.10.

- **5. Metering System In-Situ Test Record**

All attendees agreed to remove this section from the new ISO rule 502.10.

Appendix 6 Checking metering

All attendees agreed to remove this appendix from the new ISO rule 502.10.

Appendix 7 Daily System Measurement File Format & Schedule

All attendees agreed to remove this appendix from the new ISO rule 502.10.

Appendix 8 Validation, Verification, Editing & Estimating Processes

All attendees agreed to remove this appendix from the new ISO rule 502.10.

Appendix 9 Measurement Point Definition Record Processes

All attendees agreed to:

- Put this appendix into ID and merge three processes into one.
- Remove the samples of Measurement Point Definition Record (MPDR) from the new ISO rule 502.10.

Appendix 10 25KV Feeder Metering Upgrade Criteria

All attendees agreed to:

- Remove items (a) to (f) from the new ISO rule 502.10.
- Retain items (g) and (h) in the new ISO rule 502.10.

Appendix 11 Definitions

All attendees agreed that this appendix will be reviewed by the AESO to align with AESO's Consolidated Authoritative Document Glossary (CADG). The AESO will have internal review to determine if new terms, for example, virtual metering point, should be introduced to the AESO CADG.

4. The new ISO rule 502.10 Applicability will be as following:

New ISO rule 502.10 Applicability

ISO rule 502.10 applies to the AESO and entities that own revenue metering systems, including:

- the **legal owner** of:
 - a **transmission facility**;
 - an electric distribution system;
 - a generating unit or an aggregated generating facility that
 - o is connected to the **transmission system** directly; or
 - o is a distributed generation as defined in the **Act**; or
 - o is deemed as a large micro-generation as defined in the “MICRO-GENERATION REGULATION” .
 - an **energy storage facility** that is connected to the **transmission system** directly; and
 - an industrial system that has been designated as such by the **Alberta Utility Commission**.
- a person who has entered into an arrangement directly with the ISO for the provision of system access service under subsection 101(2) of the **Act**.