



Market Rule Amendment Submission

This form is used to request an amendment to, or clarification of, the Market Rules. Please complete the first four parts of this form and submit the completed form by email or fax to the following:

Email Address: Rule.Amendments@ieso.ca
Fax No.: (416) 506-2847 Attention: Market Rules Group
Subject: Market Rule Amendment Submission

All information submitted in this process will be used by the IESO solely in support of its obligations under the Electricity Act, 1998, the Ontario Energy Board Act, 1998, the Market Rules and associated policies, standards and procedures and its licence. All submitted information will be assigned the confidentiality classification of "Public" upon receipt. You should be aware that the IESO will publish this amendment submission if the Technical Panel determines it warrants consideration and may invite public comment.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the Market Rules.

PART 1 – SUBMITTER’S INFORMATION

Please enter contact information in full.
Name: IESO Staff
(if applicable) Market Participant / Metering Service Provider No.1: Hydro One Networks Inc., LDCs Market Participant Class:
Telephone: 416-506-2801 Fax: 416-506-2847
E-mail Address: rule.amendments@ieso.ca

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Revenue Metering
Title: Relief to Retain Registration Under Alternative Metering Standard
Nature of Request (please indicate with x)
[X] Alteration [ ] Deletion [ ] Addition [ ] Clarification
Chapter: 6 Appendix: Sections: 4.4
Sub-sections proposed for amending/clarifying:

1 This number is a maximum of 12 characters and does not include any spaces or underscore.

### PART 3 – DESCRIPTION OF THE ISSUE

Provide a brief description of the issue and reason for the proposed amendment. If possible, provide a qualitative and quantitative assessment of the impacts of the issue on you and the *IESO-administered markets*. Include the Chapter and Section number of the relevant *market rules*.

Accurate and reliable wholesale revenue metering is essential to the financial integrity of the IESO-administered markets. Chapter 6 of the market rules specifies the wholesale revenue metering requirements and standards. Section 4.4 of Chapter 6 recognizes and accommodates legacy metering installations that do not meet the chapter 6 requirements and allows for registration under an alternative metering standard.

Since market commencement, a number of market rule amendments have been made to further accommodate specific circumstances while concurrently supporting accurate and reliable revenue wholesale metering. These market rule amendments are listed in the attached addendum to MR-00312-Q00 for background information.

In 2005, the IESO and Hydro One Networks Inc. in consultation with ten distributors identified a number of issues with upgrading certain metering installations. The primary issue identified was the upgrading of instrument transformers (ITs) for metering installations which are part of a bus-meter installation or are part of a metering installation enclosed in metal-clad switchgear. Most of these metering installations are registered under the alternative revenue metering standard. Upgrading these installations to meet the full chapter 6 requirements is particularly complex and costly because the installations are built in an extremely space conscious manner as shown in the photographs in the attached addendum. To bring these installations into compliance with Chapter 6 standards would require rebuilding major components of the facility.

The expiry of an alternative metering installation registration under section 4.4 of Chapter 6 is triggered by two events:

1. At the earliest expiry date of the seal period of any meter within the metering installation, the market participant loses registration under the following sections of Appendix 6.2:
  - section 1.1A Metering Installation Not Comprised of Two Meters
  - section 1.4 Accuracy
  - section 1.5 Functional Requirements
  - section 1.10 Meter Installation Enclosure

In this situation, the metered market participant must upgrade to IESO conforming meters with a meter enclosure. The estimated cost for this upgrade is \$10,000 to \$35,000. This requirement gives the market the biggest measurement improvement for the smallest expenditure. Installing conforming main and alternate meters is relatively inexpensive and the market benefits from improved accuracy, enhanced data validation and accurate loss adjustment.

2. On the date that the metering installation or the facility to which such metering installation relates undergoes upgrading or refurbishment that is in the IESO's opinion substantial, the market participant loses registration under the following sections of Appendix 6.2:
  - section 1.6: Instrument Transformers – Power Switching;
  - section 1.7: Instrument Transformers – Accuracy Requirements;
  - section 1.8: Instrument Transformers – Secondary Cabling;

**PART 3 – DESCRIPTION OF THE ISSUE**

- section 1.9: Parallel Current Transformer Secondaries;
- section 1.11: Instrument Transformers – Primary Connection Point;
- section 1.12: Instrument Transformers – Primary Cable; and
- section 1.13: Instrument Transformers – Burdens.

Losing registration under the above sections causes the metering installation to lose status under the Alternative Metering Standard. To address this, the metered market participant must meet the full chapter 6 requirements. Typically, the estimated cost for this upgrade is \$150,000-\$300,000 per metering installation. The estimated cost for a particularly complex metering installation upgrade to full chapter 6 market rule requirements is \$900,000 and has the potential for much greater cost depending on the specific situation.

Presently, there are approximately 1,800 registered metering installations. Over 440 of the 1,800 metering installations are bus-meter installations or are part of a metering installation enclosed in metal-clad switchgear. Approximately 20-40 out of 1,800 (1%-2%) could be considered particularly complex.

This issue was discussed at the Revenue Metering Sub-Committee (RMSC) several times in 2005 and the Sub-Committee agreed to the need for relief for particularly complex upgrades. The RMSC members noted that relief should be the exception and not the rule. It is expected that only the 20-40 metering installations noted above would potentially qualify for relief.

The exemption process was considered as a possible solution to the problem of extremely complex upgrades. However, the exemption route is not a viable method for addressing this issue because it is designed to deal with temporary circumstances. The complexity of upgrading these metering installations is a long-term situation and requires a long-term solution.

**PART 4 – PROPOSAL (BY SUBMITTER)**

Provide your proposed amendment. If possible, provide suggested wording of proposed amendment.

The market rules should be amended to authorize the IESO to grant relief, under specified conditions, to metered market participants from having to upgrade a metering installation to the full chapter 6 requirements. The criteria for consideration of complex upgrades will be described in the associated market manual and will include consideration of:

- Location of metering installation (space restrictions);
- Complexity of upgrade (rebuilding major components of facility);
- Type of metering installation (metal-clad or bus-meter installations).

The market rules should permit the IESO to recover the cost of processing each application for relief from the applying market participant. This will ensure that the marketplace does not pay for costs that result in a benefit for a specific market participant.

The relief granted by the IESO would allow qualifying market participants to upgrade only those portions of the metering installation that undergo upgrading or refurbishment. Those portions of the metering installation that are not upgraded would retain their registration under the Alternative Metering Installation Standard.

Chapter 6, section 4.4 contains a number of expired market rules, and the remainder of section 4.4 requires fundamental changes to incorporate the suggested relief provisions. As a result, it is proposed

**PART 4 – PROPOSAL (BY SUBMITTER)**

to re-write chapter 6, section 4.4. It is also proposed to make consequential changes to Appendix 6.2 – Alternative Metering Installation Standards recognizing the potential for the IESO granting relief.

It is proposed that the IESO Metering Group make an annual presentation to the Revenue Metering Sub-Committee detailing the extent and reasons for any relief granted under MR-00312. This information would also be published on the RMSC web page on the IESO website for public review to promote transparency.

The IESO would stakeholder the Market Manual at the Revenue Metering Sub-Committee meetings.

**PART 5 – FOR IESO USE ONLY**

*Technical Panel Decision on Rule Amendment Submission:* \_\_\_\_\_

MR Number: MR-00312

Date Submitted to *Technical Panel*: August 23, 2006

Accepted by *Technical Panel* as: (please indicate with x) \_\_\_\_\_ Date: \_\_\_\_\_

General       Urgent       Minor      August 29, 2006

Criteria for Acceptance: The amendment submission identifies ways to reduce participant costs. This rule amendment will provide the opportunity for metered market participants with exceptionally complex upgrades to upgrade only those portions of the metering installation that bring the most value to the marketplace. For example, allowing a meter-only upgrade to qualifying metered market participants gives the market the biggest measurement improvement for the smallest expenditure. Installing conforming main and alternate meters is relatively inexpensive and the market benefits from improved accuracy, enhanced data validation and accurate loss adjustment.

Priority: High

Criteria for Assigning Priority: A high priority is appropriate because the temporary extension of legacy meters registration under the Alternative Metering Installation Standard expires on December 31, 2006. Metered market participants will be out of compliance with the market rules until they upgrade their metering installation to meet full chapter 6 requirements.

Not Accepted (please indicate with x):

Clarification/Interpretation Required (please indicate with x):

*Technical Panel Minutes Reference:* IESOTP 191-1

*Technical Panel Comments:* \_\_\_\_\_

## ADDENDUM TO THE MARKET RULE AMENDMENT SUBMISSION FORM

Since market commencement, the Panel has approved a number of market rules that support accurate and reliable wholesale revenue metering including:

MR #	Title	Effective Date	Summary of rule	Link
MR-00279	Metering Installations Whose Registration Expires at the End of 2004	December 8, 2004	Allow the IESO to use metering data, for settlement purposes, from metering installations whose registration has expired provided that the IESO determines that the continued use is necessary for the efficient operation of the IESO administered markets.	<a href="http://www.ieso.ca/imoweb/pubs/mr/mr_00279-R00-R06_BA.pdf">http://www.ieso.ca/imoweb/pubs/mr/mr_00279-R00-R06_BA.pdf</a>
MR-00261	Technical and Metering Requirements for Small Embedded Facilities	September 14, 2005	Simplify revenue metering requirements for small embedded generation facilities including: meter type, provision of an Emergency Instrument Transformer Restoration Plan, on-site reconciliation and meter register dial readings, and instrument transformer loading.	<a href="http://www.ieso.ca/imoweb/pubs/mr/MR_00261-R00-R06_BA.pdf">http://www.ieso.ca/imoweb/pubs/mr/MR_00261-R00-R06_BA.pdf</a>
MR-00258	Testing Requirements for Revenue Metering Installations	December 8, 2004	Reduce the required frequency of IT checks, introduce mandatory IT checks on main/alternate metering installations and amend the threshold for determining the frequency of routine testing.	<a href="http://www.ieso.ca/imoweb/pubs/mr/mr_00258-R00-R01_BA.pdf">http://www.ieso.ca/imoweb/pubs/mr/mr_00258-R00-R01_BA.pdf</a>
MR-00250	Metering Requirements for Embedded Generation Facilities	June 2, 2004	Relax revenue metering requirements for embedded generation facilities not separately registered in IESO-administered markets, but whose generation must be factored into host transmission customer service charges.	<a href="http://www.ieso.ca/imoweb/pubs/mr/mr_00250-R00_BA.pdf">http://www.ieso.ca/imoweb/pubs/mr/mr_00250-R00_BA.pdf</a>
MR-00249	Extension of Registration of Metering Installations Granted Temporary Dispensation by Measurement Canada	December 17, 2003	Allow the IESO to extend the registration of certain metering installations beyond their seal expiry period until the end of 2004 following Measurement Canada's temporary dispensation on the continued use of such metering installations for settlement purposes until the end of 2004.	<a href="http://www.ieso.ca/imoweb/pubs/mr/mr_00249-R00-R02_BA.pdf">http://www.ieso.ca/imoweb/pubs/mr/mr_00249-R00-R02_BA.pdf</a>
MR-00228	Metering Installations - Seal Expiry Requirements	June 4, 2003	Provide market participants with options regarding requirements regarding revenue metering installations at the time of	<a href="http://www.ieso.ca/imoweb/pubs/mr/mr_00228-R00-R03_BA.pdf">http://www.ieso.ca/imoweb/pubs/mr/mr_00228-R00-R03_BA.pdf</a>

			seal expiry. These options are intended to address issues regarding the cost of meeting the existing requirements.	
MR-00205	Accuracy Requirements for Instrument Transformers	December 5, 2002	Clarify the alternative metering installation standards for the accuracy requirements of instrument transformers	<a href="http://www.ieso.ca/imoweb/pubs/mr/mr_00205_r00_BA.pdf">http://www.ieso.ca/imoweb/pubs/mr/mr_00205_r00_BA.pdf</a>

Below are photographic examples of the issues described in MR-00312.



Medium Voltage Metal Clad Switchgear



Medium Voltage Metal Clad Switchgear – Internal Bus Current Transformers



Medium Voltage Open Bus



High Voltage Bus