



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@theIMO.com

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 *IMO* 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 *IMO* 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: IMO Staff	
(if applicable) <i>Market Participant / Metering Service Provider No.</i> ¹ : N/A	Market Participant Class: N/A
Telephone: 416-506-2801	Fax: 416-596-2847
Email Address: rule.amendments@theimo.com	

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Metering
Title: Testing Requirements for Revenue Metering Installations
Nature of request (please indicate with X): <u> X </u> Alteration <u> </u> Deletion <u> </u> Addition
Clarification
Chapter: 6 Appendix: 6.3 Sections: 1.4, 1.5 (Appendix 6.3)
Sub-sections proposed for amending/clarifying : 11.1.3.3a (Chapter 6)

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 *IMO-administered markets*. Include the Chapter and Section number of the relevant market rules.

Market Rules Chapter 6 Appendix 6.3 Section 1.4 requires the metering service provider (MSP) to test the primary and secondary voltages and currents of instrument transformers (IT) (voltage transformers (VTs) and current transformers (CTs)) for revenue metering installations that are not a main/alternate installation.

Market Rules Chapter 6 Appendix 6.3 Section 1.5 sets the frequency of routine tests (data reconciliation, meter spot checks and instrument transformer checks). Where the transformer or circuit capacity is less than 10 MW the frequency of testing is once per annum and where the transformer or circuit capacity is greater than 10 MW then twice per annum testing is required.

There are three concerns with the current market rules. These concerns were brought forward to the Revenue Metering Sub-Committee during a stakeholder meeting on March 11, 2004:

- the frequency of IT checks is too high;
- the rules do not apply to installations containing a main/alternate metering arrangement, and it should; and,
- the threshold for the frequency of routine testing should be based on actual usage measured by the meter rather than based on the capacity of the meter.

Frequency of IT Checks.

Checking once or twice per annum is unreasonable considering the very low frequency of IT failure found in power systems. IT failures are typically 0.03% to 0.05% per annum. Based on the approximately 1,300 legacy metering installations (7,800 individual ITs) there would be 2 to 4 failures in a typical year.

Conforming meters from the conforming meter list have the advantage in that they record volts and amps as well as energy. The IMO's validation software checks these measures of volts and amps to see if they are reasonable and where they fail the validation criteria, the IMO issues a meter trouble report (MTR) for immediate investigation. Catastrophic failures of ITs are also likely to be flagged this way. The expected consequence of the IMO validation is that the number of ITs that fail, pass IMO validation and are only caught by the IT check amount to 1 or 2 failures per year i.e. an average of 1.5 failures per annum. And with each year, the number of conforming meters in the market increases as the seals of the legacy meters expire and are replaced. Not only is the rule of limited value in terms of identifying meter failures/problems, but even that small value is being reduced each year.

The cost of completing the IT checks for all installations as per the market rules is estimated at \$1.5m. At this rate it costs the market approximately \$1m to find one IT failure.

It is proposed that IT checks remain as a requirement - the IT check is the only way to find small partial failures and ratio errors – but it should be reduced to a 6 year cycle or to specific events such as commissioning, or the manufacturer's recommended schedule, or at seal expiry of the meter. Checking every 6 years would save Metered Market Participants (MMPs) up to \$7.5m, with small risk to the

PART 3 – DESCRIPTION OF THE ISSUE

market.

Main/alternate installations

The Market Rules currently exempt metering installations that contain a main/alternate installation from IT checks. The rationale for this is that conforming meters bring back measures of volts and amps and the IMO's software validates these measures. The drawback of this system is that while catastrophic failures will be identified this way, partial failures and ratio errors may not be caught and may continue indefinitely.

IT checks will also find CT and VT ratio registration errors. The meter multiplier is the CT ratio times the VT ratio and any error in these ratios will result in an error in the metering data. These errors may be rare, but they do happen and the consequences in billing can be significant over a long period of time.

The recommendation is that ITs for metering installations that contain a main/alternate meter be subject to the proposed IT check.

Frequency of Routine Testing:

Chapter 6 Appendix 6.3 Section 1.5 of the Market Rules specifies a threshold of 10 MW based on transformer or circuit capacity in determining testing frequency.

The recommendation is to replace the use of capacity with a threshold based on actual usage. MMPs that draw more than 10 MW should be required to do the routine tests more than twice per annum based on actual consumption. Those that pose a greater risk to the market should be subject to greater scrutiny.

MR-00228-R00-03 Oversight

Finally, on a related metering market rule issue when MR-00228-R00-03: Seal Expiry – Metering Installations was approved by the IMO Board one of the market rule amendments (R02) increased the time allowed for the replacement of an instrument transformer (IT) to 12 weeks from 8 weeks. Increasing the time period reduces inventory costs for the Metered Market Participant (MMP). Through an oversight a necessary amendment to section 11.1.3.3a of Chapter 6 which would increase the time period from 8 weeks to 12 weeks was missed. It is proposed to facilitate this minor amendment during the processing of this market rule amendment submission.

Part 4 – Proposal (by submitter)

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

It is proposed to amend sections 1.4 and 1.5 of Appendix 6.3 of the market rules to reflect a modification to the Instrument Transformer (IT) Checks as follows:

- include all ITs, not just the legacy meter installations; and,
- allow a lower frequency of IT checking (as long as 6 years unless a specified event occurs).

It is also proposed to amend section 1.5 of Appendix 6.3 by changing the threshold for the frequency of

routine testing.

Finally, it is proposed to amend section 11.1.3.3a of Chapter 6 by replacing the 8 week time period indicated in the existing market rules with 12 weeks.

PART 5 – FOR IMO USE ONLY

Technical Panel Decision on Rule Amendment Submission	
MR number: MR-00258-Q00	
Date submitted to Technical Panel: May 18, 2004	
Accepted by Technical Panel as: <input checked="" type="checkbox"/> General <input type="checkbox"/> Urgent Minor (please indicate with X)	Date: May 18, 2004
Criteria for acceptance: h) It identifies ways to simplify the market and/or reduce participant costs. j) The expected or perceived benefits of the amendment exceed the expected or perceived costs of implementation.	
Priority: Medium.	
Criteria for assigning priority: a) The pervasiveness of the problem.	
Not accepted (please indicate with X):	
Clarification/interpretation required (please indicate with X):	
Technical Panel minutes reference:	
Technical Panel Comments:	