



## Notice of market rule modification

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**Paper No.** EMC/RCP/16/2004/155  
**Rule reference:** Metering Data Provider  
**Proposer:** Jennise Ting  
(Market Operations, EMC Pte Ltd)  
**Date received by EMC:** 11 July 2002  
**Category allocated:** 3  
**Status:** Approved by EMA  
**Effective Date:** 14 December 2004  
**Summary of proposed rules change:**

This rule change seeks to make it clearer in the Market Rules that the MSSL is the party responsible for determining energy quantities for wholesale settlement. This ensures consistency with the Electricity Act, MSS Licence and the Metering Code.

**Date considered by Panel:** 2 November 2004  
**Date considered by EMC Board:** 18 November 2004  
**Date considered by Energy Market Authority:** 9 December 2004  
**Proposed Rule Modification:**

Refer to attachment

**Reasons for rejection/Reasons for referral back to Panel (if applicable):**



PAPER NO. : **EMC/BD/06/2004/07(a)**

RCP PAPER NO. : **EMC/RCP/16/2004/155**

SUBJECT : **RULE CHANGE PROPOSAL - METERING DATA PROVIDER**

FOR : **DECISION**

PREPARED BY : **POA TIONG SIAW**

VETTED BY : **PAUL POH  
SVP, MARKET ADMINISTRATION**

DATE : **18 NOVEMBER 2004**

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#### **Executive Summary**

Current market rules stipulate that EMC is the party responsible for determining IEQ, WEQ and IIQ. This is inconsistent with provisions in the Electricity Act, the Metering Code and the MSSL's Electricity License. The proposed amendment is to correctly state in the Market Rules that the MSSL is the party that determines IEQ, WEQ and IIQ. This would bring all the governing documents into agreement. The RCP recommends that the EMC Board **adopt** the proposed modifications.

## 1. Introduction

This paper assesses the proposal of EMC to amend the market rules to state correctly that MSSL is responsible for determining IEQ, WEQ and IIQ. This amendment is required for consistency between the Electricity Act, the Market Rules, the Metering Code and the MSS Licence.

## 2. Background

Chapter 7 Sections 2.2.3 and 5.18.1 of the market rules (release 01 July 2004) suggest that EMC is the party responsible for determining IEQ, WEQ and IIQ. The definitions of IEQ, WEQ and IIQ in the Market Rules are quoted below:-

IEQ	=	injection energy quantity (in MWh) for generation registered facility or generation settlement facility
WEQ	=	withdrawal energy quantity (in MWh), deemed to be withdrawn at the SHUB
	=	total energy withdrawn by all load associated with a settlement account
IIQ	=	Aggregate intertie import quantities (in MWh) flowing onto the transmission system due to intertie flows at MNN

Note: The definition of IIQ in the market rules is different from that of the metering code. For consistency, IIQ will be defined in accordance with the metering code and IIQ in section 5.18.1 of Chapter 7 will be renamed as IMQ.

However, the reading of meters and management of metering data are part of market support services under Section 2 of the Electricity Act. In turn, market support services are licensed activities under Section 6(e) of the Electricity Act. Currently, only the MSSL is licensed to perform meter reading and management of metered data. It then provides settlement-ready metered data (IEQ, WEQ and IIQ) to EMC for wholesale settlement. However, when the Act, the Market Rules and the Metering Code are read together, an ambiguity arises as to which is the party responsible for determining IEQ, WEQ and IIQ. The Act and the Metering Code suggest the MSSL while the Market Rules points to EMC.

Please refer to Appendix 1 for the proposed text of modifications.

## 3. Rule Analysis

### 3.1 Provisions in Governing Documents

#### The Electricity Act

The determination of IEQ, WEQ and IIQ requires meter reading and data aggregation, which are licensed market support services activities under Section 6 of the Electricity Act. Accordingly, MSSL is the only party licensed to provide such services. It is not intended for EMC, as a wholesale market operator licensee, to perform these functions as Section 9 states that no wholesale market operator licensee shall be granted any other electricity license, i.e. including a market support services license.

## **Electricity Licence/Metering Code**

Currently, under condition 19 of its Electricity Licence, the MSSL performs both the roles of Meter Reader (MR) and Meter Data Manager (MDM). Additionally, the Metering Code sets out the Meter Reader's (MR) obligation to record and deliver raw meter data to the Meter Data Manager (MDM) (see sections 3.3.9 and 3.3.10). Sections 4.8 and 4.9.1(a) of the Metering Code expressly provide that a MDM shall calculate the IEQ, WEQ and IIQ and deliver to the Market Company (EMC) the quantities IEQ, WEQ and IIQ for each settlement account. In short, the MDM's obligation, amongst other things, is to supply "settlement-ready data" to EMC [see section 4.1.1(g) of the Metering Code]. Settlement-ready data is defined as "meter data that has been managed in accordance with the applicable standards prescribed in this Code so as to produce a quantity value that can be used for the settlement of transactions, purchases or sales associated with regulated supply service, the retail market or the wholesale electricity market."

## **The Market Rules**

Sections 2.2.3 and 5.18.1 of Chapter 7, however, state that EMC must determine energy settlement quantities. This is inconsistent with the intent of the Electricity Act, the MSSL's Electricity Licence and provisions in the Metering Code as described above.

## **What it should have been**

The Market Rules should have provided for the MSSL to determine all energy settlement quantities. Hence, amendments are required to bring about consistency of the Market Rules with these three documents.

## **4. Conclusion**

The proposed modifications reflect the intent of market design and remove the inconsistency between the Electricity Act, the MSS Licence, the Metering Code and the Market Rules.

## **5. Impact on market systems**

The modifications will not have any impact on the market systems operated by the EMC, PSO and MSSL.

## **6. Implementation process**

The change can take effect on the first business day following the publication of EMA's approval of the rules modification proposal.

## **7. Consultation**

We have published the proposed text of modifications on the EMC website for comments. No comments have been received for consideration.

The MSSL (SP Services Pte Ltd) has been consulted on this modification and supports the rule change.

## 8. Legal sign off

Text of modifications has been vetted by EMC's external legal counsel whose opinion is that the amendment to sections 2.1.1 and 2.2.3 of Chapter 7 of the Market Rules do reflect the intent of the submission as expressed in the analysis section of this paper.

## 9. Recommendations

The RCP unanimously recommend that the EMC Board:

- a. **adopt** EMC's rule change proposal to amend Chapter 7 sections 2.1.1, 2.2.3 and 5.18.1 outlined in Appendix 1 of this paper; and
- b. recommend that the proposed modification come into force one business day (or other longer time taking into account implementation time) after the date on which the approval of the Authority is published by the EMC.

**Recommended rules modifications**

Existing Rules (Release 01 July 2004)	Proposed Rules (Deletion represented by strikethrough text and addition underlined.)
<p><b>Chapter 7 Section 2.1.1</b></p> <p>It shall be the responsibility of a <i>market support services licensee</i> to:</p> <p>2.1.1.1 undertake, to the extent required by and in accordance with the <i>metering code</i> and any other applicable <i>code of practice</i>, all activities necessary for the <i>EMC</i> to determine the <i>energy</i> quantities specified in section 2.2.3;</p>	<p><b>Chapter 7 Section 2.1.1</b></p> <p>It shall be the responsibility of a <i>market support services licensee</i> to:</p> <p>2.1.1.1 undertake, to the extent required by and in accordance with the <i>metering code</i> and any other applicable <i>code of practice</i>, all activities necessary <u>for the <i>EMC</i></u> to determine the <i>energy</i> quantities specified in section 2.2.3;</p>
<p><b>Chapter 7 Section 2.2.3:</b></p> <p>The <i>EMC</i> shall, for each <i>dispatch period</i>, determine the following <i>energy</i> quantities for the <i>settlement interval</i> corresponding to that <i>dispatch period</i>:</p> <p><math>IEQ_h^m</math> = injection <i>energy</i> quantity (in MWh) for <i>GRF</i> m or <i>GSF</i> m for <i>settlement interval</i> h</p>	<p><b>Chapter 7 Section 2.2.3:</b></p> <p>The <del><i>EMC</i></del> <u><i>market support services licensee</i></u> shall, for each <i>dispatch period</i>, determine <u>and provide</u> the following <i>energy</i> quantities for the <i>settlement interval</i> corresponding to that <i>dispatch period</i>:</p> <p><math>IEQ_h^m</math> = injection <i>energy</i> quantity (in MWh) for <i>GRF</i> m or <i>GSF</i> m for <i>settlement interval</i> h</p>

Existing Rules (Release 01 July 2004)	Proposed Rules (Deletion represented by strikethrough text and addition underlined.)
<p>WEQ<sub>h</sub><sup>a</sup> = withdrawal <i>energy</i> quantity (in MWh), deemed to be withdrawn at the <i>SHUB</i>, for <i>settlement account a</i> for <i>settlement interval h</i></p> <p>= total <i>energy</i> withdrawn in <i>settlement interval h</i> by all <i>load</i> associated with <i>settlement account a</i></p>	<p>WEQ<sub>h</sub><sup>a</sup> = withdrawal <i>energy</i> quantity (in MWh), deemed to be withdrawn at the <i>SHUB</i>, for <i>settlement account a</i> for <i>settlement interval h</i></p> <p>= total <i>energy</i> withdrawn in <i>settlement interval h</i> by all <i>load</i> associated with <i>settlement account a</i></p> <p><u>IIQ<sub>h</sub><sup>i</sup></u> = <u>net imported <i>intertie</i> quantity (in MWh) flowing into or out of the <i>transmission system</i> due to <i>intertie flows</i> at <i>MNN i</i> in <i>settlement interval h</i></u></p>
<p><b>Chapter 7 Section 5.18.1:</b></p> <p>The <i>EMC</i> shall, determine <i>intertie energy</i> quantities for the <i>settlement interval</i> corresponding to each <i>dispatch period</i>, as follows:</p> <p>IIQ<sub>h</sub><sup>i</sup> = Aggregate <i>intertie</i> import quantities (in MWh) flowing onto the <i>transmission system</i> due to <i>intertie flows</i> at <i>MNN i</i> in <i>settlement interval h</i></p> <p><u>IXQ<sub>h</sub><sup>i</sup></u> = Aggregate <i>intertie</i> export quantities (in MWh) flowing out of the <i>transmission system</i> due to <i>intertie flows</i> at <i>MNN i</i> in <i>settlement interval h</i></p>	<p><b>Chapter 7 Section 5.18.1:</b></p> <p>The <i>EMC</i> shall, determine <i>intertie energy</i> quantities for the <i>settlement interval</i> corresponding to each <i>dispatch period</i>, as follows:</p> <p><del>IIQ<sub>h</sub><sup>i</sup></del> <u>IMQ<sub>h</sub><sup>i</sup></u> = Aggregate <i>intertie</i> import quantities (in MWh) flowing <del>o</del>into the <i>transmission system</i> due to <i>intertie flows</i> at <i>MNN i</i> in <i>settlement interval h</i></p> <p>IXQ<sub>h</sub><sup>i</sup> = Aggregate <i>intertie</i> export quantities (in MWh) flowing out of the <i>transmission system</i> due to <i>intertie flows</i> at <i>MNN i</i> in <i>settlement interval h</i></p>

**Existing Rules (Release 01 July 2004)**

**Proposed Rules** (Deletion represented by strikethrough text and addition underlined.)

**Chapter 7 Section 5.18.2:**

The *EMC* shall, determine aggregate *intertie* amounts for the *settlement interval* corresponding to each *dispatch period* using the quantities determined in section 5.18.1 and applicable *energy* prices, as follows:

$$IIA_h = \sum_i MEP_h^i \times IIQ_h^i$$

where:

- h = a *settlement interval*
- $\sum_i$  = sum over all *MNNs* i associated with *interties*

$$IXA_h = \sum_i USEP_h \times IXQ_h^i$$

where:

- h = a *settlement interval*
- $\sum_i$  = sum over all *MNNs* i associated with *interties*

**Chapter 7 Section 5.18.2:**

The *EMC* shall, determine aggregate *intertie* amounts for the *settlement interval* corresponding to each *dispatch period* using the quantities determined in section 5.18.1 and applicable *energy* prices, as follows:

$$\frac{IIA_h}{IMA_h} = \sum_i MEP_h^i \times \frac{IIQ_h^i}{IMQ_h^i}$$

where:

- h = a *settlement interval*
- $\sum_i$  = sum over all *MNNs* i associated with *interties*

$$IXA_h = \sum_i USEP_h \times IXQ_h^i$$

where:

- h = a *settlement interval*
- $\sum_i$  = sum over all *MNNs* i associated with *interties*