

## Notice of Market Rules Modification

<b>Paper No.:</b>	EMC/RCP/50/2010/296
<b>Rule reference:</b>	Market Rules/Version 1 <sup>st</sup> January 2010/Chapter 6 Sec 5 and applicable sections of the market manual
<b>Proposer:</b>	Keppel Merlimau Cogen
<b>Date received by EMC:</b>	20 April 2010
<b>Category allocated:</b>	2
<b>Status:</b>	Not Adopted By Board
<b>Effective Date:</b>	NA

### Summary of Proposed Rule Modification:

This paper assesses the rule change proposal to require all GRFs allocated vesting contract quantities to offer positive energy quantities for all periods, unless they are declared physically unavailable to the PSO, either due to planned maintenance or forced outages.

In view of SWEM's principle of self-commitment and EMA's confirmation that Vesting Contracts are not structured to impose an obligation on Gencos to offer positive energy quantities, the RCP recommends that the EMC Board **do not adopt this rule change proposal.**

<b>Date considered by Rules Change Panel:</b>	06 July 2010
<b>Date considered by EMC Board:</b>	23 July 2010
<b>Date considered by Energy Market Authority:</b>	NA

### Proposed rule modification:

See attached paper.

### Reasons for rejection/referral back to Rules Change Panel (if applicable):

PAPER NO. : **EMC/BD/04/2010/XX**

RCP PAPER NO. : **EMC/RCP/50/2010/296**

SUBJECT : **REQUIREMENT FOR GRFS TO SUBMIT POSITIVE ENERGY OFFER QUANTITIES UNLESS PHYSICALLY UNAVAILABLE**

FOR : **DECISION**

PREPARED BY : **TAN LIANG CHING  
SENIOR ECONOMIST, MARKET ADMINISTRATION**

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

DATE OF MEETING : **30 July 2010**

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#### **Executive Summary**

This paper assesses the rule change proposal to require all GRFs allocated vesting contract quantities to offer positive energy quantities for all periods, unless they are declared physically unavailable to the PSO, either due to planned maintenance or forced outages.

In view of SWEM's principle of self-commitment and EMA's confirmation that Vesting Contracts are not structured to impose an obligation on Gencos to offer positive energy quantities, the RCP recommends that the EMC Board **do not adopt this rule change proposal.**

## 1. INTRODUCTION

This paper assesses the rule change proposal to require all GRFs allocated vesting contract quantities to offer positive energy quantities for all periods, unless they are declared physically unavailable to the PSO, either due to planned maintenance or forced outages.

## 2. BACKGROUND

Currently, GRFs are required to have a valid standing offer for energy for each dispatch period (Chapter 6, Section 5.1.1 of the Market Rules), with the requirement that their offer quantities be no less than 0.0MW (Chpt 6, Sect. 5.2.5 of the Market Rules). This implies that Gencos could submit a standing offer of 0MW for their GRFs if they choose not to run up their units, even if these units are physically available.

The proposed rule change stems from the premise that GRFs accorded with vesting contracts<sup>1</sup> should be required to offer energy quantities into the market, at all periods that they are physically available. This is to prevent any withholding of capacity and undue exercise of market power.

The proposal thus suggested reviewing the definition of offer validity, such that standing offers and/or offer variations are considered valid only when offer quantities are numerically greater than zero MW. Offer quantities of zero MW can only be offered when the applicable generation registered facility is declared unavailable to the Power System Operator.

## 3. ANALYSIS

The Singapore Wholesale Electricity Market operates on the principle of self-commitment, which is driven by both a desire for economic efficiency, and for increased commercial sovereignty<sup>2</sup>. The rule change proposal suggests a link between vesting contracts and a genco's obligation to offer positive energy quantities.

Vesting contracts are described by EMA as follows<sup>3</sup>:

*The key policy objective of the vesting contract regime is to curb market power in order to promote efficiency and competition in the electricity market for the benefit of consumers. The vesting contracts are bilateral electricity contracts between generation companies and SP Services. Under the vesting contracts, the generation companies are committed to sell a specified amount of electricity (viz. the vesting contract level) at a specified price (viz. the vesting contract price). This removes the incentives for generation companies to exercise their market power by withholding their generation capacity to push up spot prices in the wholesale electricity market.*

EMA has confirmed that Vesting Contracts are **not** structured to impose an obligation on Gencos to offer positive energy quantity into the wholesale electricity market.

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<sup>1</sup> Gencos are allocated vesting contract quantities based on the respective installed capacities of their GRF portfolios.

<sup>2</sup> Section 1.2.2 of Memorandum on *Wholesale Market Design* by PHB Hagler Bailly, Aug 2000

<sup>3</sup> EMA website: <http://www.ema.gov.sg/page/91/id:134/>

In any case, if Gencos were required to offer positive energy quantities into the market at all periods, there could be significant implications for plants with a long lead time to start up and synchronise to the system. Currently, Gencos may choose to offer zero quantities for these plants during the periods required to start-up and synchronise the “cold” plant. If the Genco were required to offer positive energy quantities for these plants at all times, they would have to perpetually keep these plants in operation (possibly at a low energy output level), in anticipation of the possibility that they may be scheduled.

#### 4. CONSULTATION

EMC published this rule change proposal for comments on 24 May 2010, and received comments from Tuas Power Generation, Senoko Energy and Sembcorp Cogen. The following section lists their comments and EMC’s corresponding responses.

##### Tuas Power Generation Comments

As in any other markets worldwide, the SWEM market is designed on a “willing-buyer, willing-seller” basis so that all generators have the choice for offering into the market. This proposed rule change is inconsistent with this market’s fundamental design philosophy whereby generators take responsibility for their own unit commitment planning.

Moreover, it is noted that the rationale stated in the proposal of “all generation registered facilities declared available and thus accorded with vesting contracts” is inconsistent with the very detailed design of the vesting contract regime for Singapore [PA Consulting, 9 May 2001 - Managing market power: a proposal for the use of vesting contracts], which specifically articulated that the vesting contract was not to impose any physical performance obligations of the generator and that all contract obligations are purely financial.

Last but not least, as identified by EMC, it may not be physically possible for a long-lead time plant to start up when scheduled at short notice, or there may be significant cost implications for these units to start up and synchronise to the system. Tuas Power would like to seek the proposer’s responses on how the two issues are to be addressed if the proposed change is passed.

##### Senoko Energy Comments

A key feature of the SWEM is the principle of self-commitment which allows gencos to offer their assets into the market based on price signals and expected revenues. Senoko does not see merit in changing this market design feature and hence does not support the proposed rule change. In addition, as noted in the paper, the proposal is likely to be problematic to implement in practice.

The vesting contract creates a purely financial relationship between the Holders (vested gencos) and the Issuer (SP Services), and hence does not create obligations for physical unit commitment. However, to ensure that gencos are only vested for capacity that is capable of dispatch, the EMA does not give vesting cover to units that are not available for a period of more than six months.

EMC's Response

EMC notes Tuas' and Senoko's points that vesting contracts do not impose a requirement on GRFs to offer positive energy quantities into the market. This is consistent with EMA's confirmation that Vesting Contracts are **not** structured to impose an obligation on Gencos to offer positive energy quantity into the wholesale electricity market.

Sembcorp Cogen Comments

We support this proposed rule change. Generation units declared for vesting allocation needs to show that their plants are capable of running when dispatched. If there is a concern on long lead time required to start-up and synchronize the "cold" plants, then we propose that EMC or EMA conduct a holistic review for these "cold" plants to reside in a separate regime or a modified vesting regime, for e.g. cold plants to run at least a few times a quarter or generate at certain percentage of their vesting allocation for the quarter.

EMC's Response

As EMA has already confirmed that Vesting Contracts are **not** structured to impose an obligation on Gencos to offer positive energy quantities into the wholesale electricity market, generation units declared for vesting allocation do not need to show that their plants are capable of running when dispatched.

## 5. DECISION BY THE RCP

The RCP discussed this issue at the 50<sup>th</sup> RCP meeting, and the decision was put to a vote:

The following Panel member voted **to support** the rule change proposal:

- Annie Tan (Representative of Retail Licensee Class)

The following Panel members voted **not to support** the rule change proposal:

- Kenneth Lim (Employee of EMC)
- Kng Meng Hwee (Representative of the PSO)
- Chan Hung Kwan (Representative of Transmission Licensee Class)
- Lawrence Lee (Representative of Market Support Services Licensee)
- Daniel Lee (Representative of Generation Licensee Class)
- Philip Tan (Representative of Generation Licensee Class)
- Dallon Kay (Representative of Wholesale Electricity Market Trader Class)
- Robin Langdale (Representative experience in financial matters)
- Dr. Goh Bee Hua (Representative of Consumers)

## 6. RECOMMENDATION

In view of SWEM's principle of self-commitment and EMA's confirmation that Vesting Contracts are not structured to impose an obligation on Gencos to offer positive energy quantities, the RCP by majority recommends that the EMC Board **do not adopt the rule change proposal** to require all GRFs allocated vesting contract quantities to offer

positive energy quantities for all periods, unless they are declared physically unavailable to the PSO, either due to planned maintenance or forced outages.

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