MINUTES OF THE RULES CHANGE PANEL
39TH MEETING
HELD ON TUESDAY 2 SEPTEMBER 2008 AT 10.05AM
AT ENERGY MARKET CO. PTE LTD
238A THOMSON ROAD #11-01
NOVENA SQUARE, SINGAPORE 307684

Present: Dave Carlson Robin Langdale
Tay Swee Lee Ng Meng Poh
Dr. Kang Cheng Guan Philip Tan Pei Lip
Dr. Daniel Cheng Dr. Goh Bee Hua
Dallon Kay Annie Tan
Lawrence Lee

Absent with Henry Gan

Apologies: Low Boon Tong Michael Lim

In Attendance: Paul Poh Poa Tiong Siaw
(EMC) Tan Liang Ching Nerine Teo
Wang Jing Henry Wee

1.0 Notice of Meeting

The Chairman called the meeting to order at 10.05am. The Notice and Agenda of the meeting were taken as read.

2.0 Confirmation of Minutes of the 38th Rules Change Panel Meeting

The Minutes of the 38th Rules Change Panel meeting held on Tuesday, 1 July 2008 was tabled and taken as read.

There being no amendments to the Minutes, the Rules Change Panel unanimously accepted and approved the Minutes.
3.0 Matters Arising

The Panel noted that the follow-up action was completed on the matters arising as outlined.

Publishing generation offers and dispatch quantities
(Paper No. EMC/RCP/38/2008/CP16)

EMC was asked to identify from the CRA’s July 2007 survey on other types of information that are commonly published in other electricity markets. It should also look at historical SWEM offer data from 2003 and observe if structural changes in the industry had changed offer patterns.

The Panel was informed that there were 3 significant changes to the industry that could have an impact on offer patterns. First, the vesting contract (VC) regime was implemented on January 2004 covering, on average, 65% of load. Second, additional capacity was added in April 2007. Third, VC coverage was reduced from 65% to 55% of load in July 2007. It is therefore appropriate to compare offer curves from 2003 with those from 2007 to see if such structural changes have altered offer patterns.

EMC presented SWEM's offer pattern in 2003 and it was noted that the offer patterns in 2003 were not materially different from that of 2007. There were some observable differences in offer levels and can be explained as follows:

1. Difference in the general level of offers reflected the increase in demand between 2003 and 2007;
2. More capacity was offered in Q1 2003 when the market started. Offer levels were quickly “normalized” from Q2 2003 onwards.

From Q2 2003 onwards, it was observed that the offer patterns were visibly similar to those of 2007. This is despite the fact that significant time has lapsed and that the vesting contract regime was introduced in 2004 and more generation capacity was added in April 2007.

EMC concluded as a result of this similarity that historical aging of data did not significantly lessen its strategic value. The Panel agreed that offer patterns have not changed significantly between 2003 and 2007.

The Chairman suggested that to bring the matter to a close that EMC bring back to the next meeting an overview of all the further analysis that the Panel had requested so that the Panel could review the original recommendation.
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The Panel was also informed that work on reviewing common data releases identified in the CRA survey will be carried out.

4.0 Summary of Outstanding Rule Changes

The Panel noted the contents of the paper.

5.0 Monitoring List

The Panel noted the contents of the paper.

(The Panel invited Ms. Coco Choo, CFO of EMC and Mr. Kenneth Lim, SVP (MOIT) of EMC to the meeting).

6.0 EMC’s Proposed PIMS Targets for FY2008/09 to FY2012/13
(Paper No. EMC/RCP/39/2008/02)

(Mr. David Carlson of EMC declared a conflict of interest and abstained from the discussion except to answer questions).

Ms. Coco Choo, CFO of EMC presented EMC’s proposed performance targets under the Performance Incentive Management System (PIMS) for FY2008/09 to FY2012/13.

The Panel was informed that the proposed PIMS Targets were sent to the EMA for consideration. The EMA asked for the RCP to consider EMC’s proposal and make its comments for the EMA’s consideration.

EMC’s Economic Regulation Framework

Ms. Choo informed the Panel that EMA has determined the Economic Regulation Framework for EMC for a five-year period from FY2008/09 to FY2012/13. The Framework is based on a performance based regulation regime to ensure that there are incentives on EMC to improve its service performance standards.

The regulation regime comprise two key components:

1. A revenue cap set over the regulatory period of 5 years based on a WACC-based return plus EMC’s expenses with yearly adjustments for return of non-efficiency savings on depreciation expense and exogenous items.
In reply to Mr. Ng Meng Poh’s query, Ms. Choo informed that the WACC percentage is derived from international comparatives and is applied on EMC’s assets value. EMA had engaged its consultant on the international comparative companies used in determining the WACC percentage and the comparative companies are mostly stock exchange companies.

The Panel was also presented with the Approved Revenue Regime for FY 2008/09 – FY 2012/13 as shown below.

<table>
<thead>
<tr>
<th>Year</th>
<th>FY 08/09</th>
<th>FY 09/10</th>
<th>FY10/11</th>
<th>FY11/12</th>
<th>FY12/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC’s Allowed Revenue ($)</td>
<td>28,450,033</td>
<td>28,641,108</td>
<td>28,833,466</td>
<td>29,027,116</td>
<td>29,222,066</td>
</tr>
</tbody>
</table>

**PIMS**

Ms. Choo informed that the PIMS was implemented since FY2004/05 and the objective of the PIMS is to incentivise EMC to maintain high levels of service delivery to the market. The fee methodology was approved by the EMA. EMC is eligible to a maximum bonus of $600,000 or 2% of EMC’s revenue whichever is the lower for performance above the approved targets.

The PIMS comprises a set of measures designed to assess the quality of EMC’s performance. These measures are:

a. Quantitative measures
   i. Systems availability
   ii. Pricing and information accuracy
   iii. Settlement accuracy
b. Qualitative measures
   i. Customer responsiveness
   ii. Satisfaction with Rule Change process
   iii. Satisfaction with Market Assessment and Dispute Resolution services

The Panel was informed that EMC proposed to set the targets for the next 5 years so as

- To align with the Revenue Regulatory Regime period
- To provide certainty to the industry
- To allow EMC to plan better
- To set targets ahead of time

The proposed Quantitative Targets are as follows:

<table>
<thead>
<tr>
<th>Target</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems Availability</td>
<td>99.90%</td>
</tr>
<tr>
<td>Pricing</td>
<td>99.70%</td>
</tr>
<tr>
<td>Settlement</td>
<td>99.90%</td>
</tr>
</tbody>
</table>

Rationale for the Quantitative Targets

Ms. Choo informed that the targets have reached a reasonably high level and EMC is proposing to maintain the targets for the following reasons:

1. In the component metrics, they are already representing 100% in or near 100% in targets,
2. 100% means no longer exceedable thus making the PIMS regime no longer meaningful,
3. To be 100% perfect in performance, heavy capital investments will be deployed and performance may be limited,
4. Existing targets are above those achieved by survey participants.

The proposed Qualitative Targets are as follows:

<table>
<thead>
<tr>
<th>Target</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Responsiveness</td>
<td>80.0%</td>
</tr>
<tr>
<td>Market Assessment</td>
<td>80.0%</td>
</tr>
<tr>
<td>Rule Changes</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

Rationale for the Qualitative Targets

The Qualitative Targets are proposed at 80% for the following reasons:

1. Subjective ratings involved in qualitative measures cannot be as high as quantitative measures
2. Middle-ground responses of ‘Neither satisfied nor dissatisfied’ are rated and calculated with the same effect of ‘Not satisfied’ response i.e. no incentive yielded
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3. it is inappropriate to set high target on the basis that ‘since the actual performance was high, the bar could be set higher’ is a detrimental and disincentivising philosophy

4. 80% is considered a challenging target

Mr. Langdale expressed concern that the Quantitative Targets are set too high and if EMC should miss its targets, EMC is likely to lose 25% of its performance bonus. As for the Qualitative Targets, he opined that these are subjective targets and he was not sure whether the methodology is sensible.

Mr. Langdale also opined that the referred Targets are not “targets” but should be referred as “Base Points” whereby should EMC meet the “base point” there will not be a performance bonus and any achievement beyond that would provide a bonus. Therefore the real target in all the PIMS measures is “100%” as only a 100% achievement yields the maximum bonus.

In reply to Mr. Philip Tan’s query on whether independent consultant should be required to review EMC’s targets, other Panel members felt that this was not necessary as EMC was already well into the current financial year and that delaying targets further was a concern.

Mr. Lawrence Lee asked EMC to re-look at the current weightage distribution attached to the qualitative objectives as well as the quantitative targets. EMC informed that the original weightings had been set following advice from a consultant employed by the EMA and broad industry consultation prior to the onset of the PIMS regime. It was agreed that a review should also include re-visiting the weightings between the different PIMS measures.

There was concern from the Panel that the proposed qualitative performance targets are lower than what were actually achieved by EMC over the previous two years.

The Panel concluded with the following to be submitted to the EMA for consideration:

1. Quantitative Targets - There is a view that some, but not all, Panel members felt that the proposed targets can be set for the 5 years period as they are already high.

2. Qualitative Targets - The Panel stated that these targets should be reviewed annually. The Panel stated that for FY2008/09, the targets should remain at 85%.

3. There exists the potential misinterpretation between the minimum base versus the target required for maximum bonus. This was because achievement of the proposed ‘targets’ resulted in a nil bonus, and only a result rating of 100% would provide a full performance incentive bonus.
4. The RCP would like to review the next regulatory period and PIMS 4 years into the current period, based on 4 years experience, to allow sufficient time to comment before resetting in 2013. This review should also include re-visiting the weightings between the different PIMS measures.

5. The RCP would like more details to be able to comment with more certainty for the next 5 years out, especially Qualitative Targets.

6. EMC was asked to review the Survey Questionnaire and to ensure that the questions are appropriate. EMC was also tasked to guide the respondents on each aspect of the Questionnaire.

The Chairman will prepare a letter to the EMA on behalf of the RCP containing the above panel comments. This will be circulated to Panel members for confirmation of accuracy prior to submission.

7.0 Conflict of Interest Management for the Market Surveillance and Compliance Panel (Paper No. EMC/RCP/39/2008/280)

The Panel was informed that the rule modification proposal by EMC is to introduce mechanisms for managing certain conflicts of interest that can arise within the Market Surveillance and Compliance Panel (“MSCP”).

The Panel was also informed that one MSCP member ceased to meet the requirements of section 2.7.2 of Chapter 3 of the market rules when his sibling was employed by an affiliate of a market participant.

Under the existing Market Rules, a conflict of interest (“COI”) arises when:
• A panel member, his spouse or a relative acquires an interest in EMC, PSO, an MP or MSSL, or any of their affiliates
• Relative includes parents, children and siblings
• Every Panel member has, prior to his appointment, undertaken to declare any COI that arises

A COI permanently disqualifies the Panel member unless he is subsequently reappointed by the EMC Board once the COI is resolved.

The EMC Board considered that the COI provisions in the Market Rules are too broad and do not provide flexibility for the declaration and management of a conflict of interest that arises. The Panel was informed that the EMC Board felt that replacing a MSCP member is difficult due to a small pool of qualified and eligible people.

Additionally, the COI can easily arise for other MSCP members due to undirected actions of their siblings/children. The EMC Board proposed a mechanism to manage some types of COI when they arise, instead of automatically and permanently disqualifying a MSCP member who has a conflict.
EMC proposed the following:

- Amend the COI criteria slightly such that:
  A. Full COI criteria apply only at the point of appointment; and
  B. During appointment term, any COI involving only the Panel member’s relative does not disqualify the member.
- Under (B), require the member to abstain from any MSCP activity relating to any matter that involves the company in which the member’s relative has an interest in.
- If such abstinence deprives the MSCP of relevant expertise, the MSCP can request the EMC Board to appoint temporary MSCP member(s) to deal with the matter.
- Temporary MSCP members are appointed for specific matters only.
- Temporary MSCP members are appointed only upon MSCP’s request.
- Their term of appointment ends when the MSCP’s work on those specific matters end.

The Panel was informed that under the Market Rules, EMC was required to consult the Chair of the MSCP for any proposed rule changes which affect them. The MSCP made a submission on the proposal and EMC also published the proposal for public consultation and received no submission.

In summary, the MSCP made the following suggestions with EMC’s response (in blue):

a. General criteria for conflict of interest, subject to determination of materiality with discretion vested in EMC, to be applied throughout MSCP members’ term of appointment.

EMC did not support removing general COI criteria nor vesting EMC with discretion to determine materiality of COI.

b1. Siblings excluded from the definition of “relative”
b2. Materiality of conflict of interest be determined by the seniority of appointment

On Point b1, EMC did not support as there is no strong basis.

On Point b2, EMC did not support as it is subjective and there is no strong basis.

c. Vest discretion with EMC to determine materiality of conflict of interests.

EMC did not support as this would be subject to dispute and EMC is a possible party to rule breaches.

d. Appointment of temporary MSCP members not workable.

EMC supported this if it is deemed unworkable by the MSCP.
e. Review/reduce MSCP members’ appointment criteria with respect to having an interest in an “affiliate” of a market participant.

EMC did not support as the current provision is suitably stringent.

f. Threshold for beneficial interest be set at 5% of shareholding.

EMC supported this since this is a common benchmark used for disclosure purpose.

With regard to the vesting of discretion to assess materiality of COI, Mr. Langdale considered that MSCP members, who are chosen for their high level of integrity and independence, ought to be in the best position to decide if any COI is material to each case. They will be best able to assess the nature of COIs and if there is any doubt they ought to disqualify themselves.

The Panel supported EMC’s responses to the MSCP subject to vesting discretion with the MSCP on determining materiality.

The Panel agreed to propose the following regime to the MSCP:

(a) At the time of appointment, all MSCP members must satisfy the existing appointment criteria
(b) Post appointment, any conflict of interest (under existing criteria) must be declared to EMC as is currently the case.
(c) If a conflict of interest arises in the MSCP member’s personal capacity, his appointment as a MSCP member automatically ends.
(d) If a conflict of interest does not arise in the MSCP member’s personal capacity but in his spouse or relative, then the member can remain appointed.
(e) With respect to any matter that the MSCP deals with, if a MSCP member has a conflict of interest with any party (or its affiliates) to the matter which is caused by the member’s spouse or relative, he must immediately notify the rest of the MSCP members.
(f) Following from (e), when faced with that matter that has such a conflict, the non-conflicted MSCP members shall assess the materiality of the conflict and decide if the conflicted member should abstain from activities related to that matter. The conflicted member may volunteer abstention, in which case an assessment on materiality of the conflict would not be required.
(g) If any MSCP member abstains by virtue of (f), the MSCP has the option to request for temporary MSCP members to be appointed by the EMC Board. The terms of appointment are as set out in the original proposal.
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Other Changes

(h) Remove the option for temporary MSCP members if the MSCP confirms that it would not be workable.
(i) Raise the threshold for determining beneficial interest to 5% of the voting shares in a company.

EMC will prepare a letter to the MSCP on behalf of the RCP containing the above panel comments. This will be circulated to Panel members for confirmation of accuracy prior to submission.

EMC

8.0 Any Other Business – Costs imposed by the MSCP

Mr. Philip Tan raised the question on costs imposed by the MSCP on EMC regarding breach of market rules and if these costs are included under the PIMS.

Mr. Carlson informed that costs imposed against EMC will be returned back to the market and it comes out of the exogenous refunds from EMC’s budget. If there are fines on market participants, the fines are returned to the market through the MEUC.

There being no other matters, the meeting ended at 12.25pm with a vote of thanks to the Chair.

Dave E Carlson
Chairman

Minutes taken by:
Eunice Koh
Senior Executive - Corporate Secretariat