MINUTES OF THE RULES CHANGE PANEL
26th PANEL MEETING
HELD ON THURSDAY, 11 MAY 2006 AT 10.05AM
AT ENERGY MARKET CO. PTE LTD
9 RAFFLES PLACE #22-01
REPUBLIC PLAZA, SINGAPORE 048619

Present: Dave Carlson    Lim Ah Kuan
         Low Boon Tong    Robin Langdale
         Tay Swee Lee    Kng Meng Hwee
         Philip Tan Pei Lip    Dallon Kay
         Francis Gomez    Henry Gan

Absent with apologies Koh Kah Aik    Dr. Daniel Cheng

In Attendance: Paul Poh    Poa Tiong Siaw
(EMC)    Teo Wee Guan    Janice Leow
         Wang Jing

1.0 Notice of Meeting

Mr. Jomar Eldoy, the Interim CEO of EMC, was unable to attend this 26th RCP Meeting. In accordance with Section 2.3.6 of Chapter 3 of the Market Rules, Mr. Eldoy had appointed Mr. Dave Carlson, the Interim COO to chair this 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 25th Rules Change Panel Meeting

The Minutes of the 25th Rules Change Panel meeting held on Tuesday, 14 March 2006 was tabled and taken as read.

The Committee requested EMC to include “subject to certain conditions” to the fourth paragraph on page 8 after the words “price revision”.

Subject to the above amendment to the Minutes, the Rules Change Panel unanimously accepted and approved the Minutes.

3.0 Matters Arising from the 25th Rules Change Panel Meeting held on 14 March 2006

The Panel noted that the matters arising as outlined had been completed.
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The Committee noted the EMC Board’s comments on its commitment to drive efficiency in the market and that the shortening of the settlement cycle is a potential efficiency improvement and the EMC Board’s requests that the Panel continue to review and assess the settlement cycle for future opportunities for improvement.

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.

6.0 Imposition of Default Levy (Paper No. EMC/RCP/26/254)

At the 25\textsuperscript{th} RCP Meeting held on 14 March, MSSL submitted its concerns about the proposal relating to its role as a conduit for Vesting Contracts.

Mr Lim Ah Kuan commented at the 25\textsuperscript{th} RCP Meeting that:

1. If MSSL becomes the sole net creditor as a result of Vesting Contracts credits the proposal is unfair to MSSL given its conduit role in the VC regime.

2. Vesting Contract was designed on the premise that default levies are shared by all MPs.

Mr. Poa Tiong Siaw explained that the “flow-through” phenomenon is a valid concern for MSSL. He also informed the Panel that while the wholesale market may consider what takes place outside it, the default levy arrangement serves to preserve the financial integrity of the wholesale market and that any activities that occur outside the market should not influence the risk management arrangements in the wholesale market.

To put in perspective the probability of the MSSL becoming the sole creditor in the market as a result of vesting contracts, Mr Poa explained that gencos must produce below their vesting quantities for a sustained period. (Below 65% load on average for a day). This is extremely remote. Also, there has been no documentation that the design of VC regime made reference to the Default Levy design or vice versa.
EMC also received a letter from MSSL dated 22 March 2006. The letter stated:

“EMC’s conclusion under Scenario 2 is thus flawed, as it does not take into consideration the flow through of the vesting credits received by MSSL to the retailers/CCs.”

Mr Poa reported that, as earlier stated to the Panel, EMC’s rationale is that the vesting contract “flow-through” occurs outside the SWEM. Also, when the Vesting Contract Reference Price (VCRP) is greater than the Hedge Price, MSSL is not automatically the sole net creditor and gencos the net debtors. For that to happen, gencos must produce below their VQs for a sustained period of time over 48 periods. Citing an example for illustration, Mr. Poa referred to the 29 June 2004 blackout. During that most severe power failure since market start, MSSL was only a marginal creditor and most gencos remained net creditors for the day. MSSL’s share of total credit invoice amount in the SWEM was only 2.9%.

In the letter, the MSSL also stated:

“Where VCRP<HP, generators will be entitled vesting debits from MSSL, thus making MSSL a debtor and gencos the creditors. Retailers will need to pay out vesting debits to MSSL, thus making MSSL a creditor and retailers the debtors. In this scenario, MSSL is again not the sole creditor.”

To this, Mr. Poa clarified that the Scenario 2 that was discussed referred to a situation when VCRP is greater than HP, it is a specific scenario. Condition 1 of Scenario 2 stated that “Every genco produced below its VQ and thus had to purchase at high spot prices”. The assumption was that VCRP (reflecting spot prices) is greater than HP.

Thirdly, the letter stated:

“In view of our role as a conduit of vesting contract, it is inequitable that MSSL be defined as the sole net creditor under the scenario that EMC has highlighted, and thus, to bear fully the default levy.”

Mr. Poa explained that even with the current arrangement, MSSL already bears default levies owing partly to VC credit/debit settlement with Gencos. If this is inequitable, then the current arrangement is also wrong in principle, sole creditor or not. What MSSL considers inequitable exists in both the current and proposed arrangement. It reflects MSSL’s special role in being the VC counterparty to gencos.
Lastly, although MSSL agreed with the principle that net creditors should bear default levy, it disagreed with the definition of “net creditor” in Scenario 2 when the MSSL becomes the sole creditor and requested EMC to provide a thorough flow-through analysis of the VCSC to determine ultimate net creditors.

EMC studied the following 2 options to deal with MSSL’s concerns:

1. Exclude Vesting Contract Credits/Debits in Net Invoice Amount
   - Treats as if VCs are not settled in the Wholesale Electricity Market.

EMC analysis of this option:
   - Default levy is meant to cover the residual default risk of what is settled through the wholesale market. VC settlement between gencos and MSSL is. Hence, it is wrong in principle to exclude it.
   - It is not workable under the “net-creditor pay” regime. In scenario 2, gencos would be classified as “net creditors” when, in fact, their wholesale market invoice indicate a net debt.

2. Settle VCs outside the SWEM
   - A regime change to move settlement of VC between MSSL and gencos outside the wholesale market.

EMC analysis of this option:
   - It would cause greater uncertainty for SWEM over financial exposure because currently 65% of trade fixed at the HP and with the removal, most likely that prudential requirements would have to increase.
   - Good: Neatly splits wholesale and non-wholesale market exposures.
   - Conclusion: It would increase uncertainty and is too high a price to pay.

Mr. Poa informed the Panel that the issues raised by MSSL regarding the VC regime merit consideration but do not fall in the domain of the wholesale Market Rules. In principle, risk management provisions for the wholesale market should not be influenced by activities outside it. The proposed arrangement is the most desirable to meet the objectives of the Market Rules.
The Panel invited Ms. Han Mui Hui and Ms. Jasmine Ng of SP Services to the meeting.

Ms Han reiterated that fundamentally, SP Services agreed with the concept of the default levy being imposed on net creditors. However, SP Services would like to seek clarity on the definition of a “net creditor”, as she was of the view that it was inconsistently applied under the proposed arrangement. SP Services understood that a net creditor would be determined based on the net invoice amount, which would comprise wholesale energy prices and vesting credit/debits. Only gencos and MSSL were thus assessed on their net credit or debit positions after taking into account vesting credits/debits, whereas the retailers were assessed on their net position without taking into account their vesting credits/debits. This would be an inconsistent and inequitable treatment.

SP Services would seek a more consistent way in determining a net credit or debit position of MPs and thus a more equitable application of the new allocation of the default levy. SP Services proposed a refinement to the computation of the “net creditor” position, i.e. to also determine the net position of the retailers after vesting credits/debits.

Ms Han added that the discussion on the appropriateness of the proposal should be based on the ground of principle and not on the probability of occurrences or the quantum of default levy. As of to date, SP Services had two occurrences of being in net credit positions, whereas there was no occurrence of default in the market.

SP Services proposed the following when there was a default and thus EMC would need to impose a default levy:

1. MSSL would calculate the vesting credits/debits due to retailers
2. MSSL would submit these vesting credits/debits due to retailers to EMC
3. EMC would determine the net creditor/debtor status of all MPs, including MSSL and the retailers, after applying their respective vesting credits/debits

Mr Poa remarked that this approach does not separate wholesale market and retail market risks. However, if VC settlement between MSSL and Retailers is billed through the wholesale market as part of the routine daily settlement process, then the solution would be sound in principle.

Ms Han agreed that MSSL could study if such an arrangement would be possible.
Mr Poa also cautioned that the feasibility of billing VC credits via the wholesale market needs to be studied carefully. Firstly, VC credits to retailers have to be calculated by the MSSL and submitted to EMC in time to be included in EMC’s preliminary settlement statement (D+6 business days) to MPs.

Mr Paul Poh added that if this arrangement is possible, there could be the added benefit of lower level of prudential requirement from retailers when there are price spikes. More importantly cashflows of vesting contracts at the wholesale market is brought in sync (i.e. both between gencos and MSSL and between MSSL with retailers) rather than separated (i.e. between Gencos and MSSL at EMC level).

Mr Philip Tan remarked that defining net creditors this way would return the proposal back to square one. If an exception is taken in this case to include financial settlement outside the wholesale market, it would imply that bilateral contracts currently not settled through the wholesale market should also be included.

Mr Robin Langdale remarked that the debate was not about providing a rule for a likely event. If no rule is provided due to low probability of the event, then the possibility becomes a risk. Imposition of default levy is itself an extreme event. Hence, the rule around it should cover extreme circumstances.

Mr Francis Gomez agreed that settling VC between MSSL and market participant retailers through the wholesale market would be more efficient if it is feasible.

Mr. Dave Carlson concluded that the Panel thinks that the proposal has merit and warrants a study by MSSL and EMC. Before EMC and MSSL proceed with the study, he pointed out that any remaining issue that panel members have with the current version of the proposal (Paper 254) should be raised so that EMC and MSSL can proceed on a firm basis.

EMC was asked to consult with the Panel on any other issues in respect of Default Levy.

The Panel requested EMC to work with MSSL to investigate the possibility of discussion (technical and operational) to bring benefit to the market.

The Panel also requested EMC to provide a short write up on the proposal (presentation made on the board) for panel members.

The Panel thanked Ms. Han and Ms. Ng for their attendance.
7.0 Compensation Arising from Market Energy Price Revisions  
(Paper No. EMC/RCP/26/2006/253)

Proposed formula for determining compensation amount

At the 25th RCP Meeting held on 14 March 2006, the Panel tasked EMC to re-examine the proposed formula used to calculate the compensation amount for an affected generator.

Specifically, at that meeting, a few RCP members had proposed that the compensation amount be calculated base on the difference between the revised MEP and the highest clearing offer price multiplied by the affected generator’s IEQ (i.e. the total of the blue- and purple-shaded area, instead of the blue-shaded area as proposed by EMC in the example given below).

Mr Teo Wee Guan informed the Panel that an evaluation was done for the suggestion made by that few RCP members. It was noted that neither the generators nor loads are at fault for the wrong original MEP. While there is a need to compensate an affected generator, such compensation amount (which is to be recovered from loads), should not exceed the ‘deadweight loss’ (or ‘excess burden’) arising from an erroneous scheduling originally. Mr Teo explained that the ‘excess burden’ measures the social cost arising from an inefficient outcome and from the societal welfare point of view, the compensation amount to be paid by loads should not exceed this social cost.
Mr Teo reiterated that the purpose of the proposed compensation arrangement is to meet the dual objectives of ensuring that (i) an affected generator can recover its variable costs incurred for the affected quantities of energy it had produced in real-time due to erroneous real-time schedules (RTS), and (ii) loads do not pay a compensation amount which exceeds the ‘excess burden’ imposed on the society arising from an inefficient scheduling.

Further, Mr Teo commented that the claim made by some RCP members that EMC’s proposed formula does not allow an affected generator to recover its start-up cost is not compelling. Generally, where a generator is expected to run for a period of time, scarcity rents (or ‘profits’) earned through marginal pricing under normal circumstances and accumulated over a period of time should allow a generator its start up costs. Whereas if a generator is expected to run only for one dispatch period, that generator would have already incorporated its start-up cost in its initial offer(s).

In conclusion, EMC still maintains its original proposal and recommended that the RCP support EMC’s proposal.

However, some RCP members disagreed with EMC’s evaluation and did not support EMC’s recommendations. These members maintained that EMC’s proposal violates the uniform marginal pricing adopted by the market. Mr. Tay specifically mentioned that the underlying principles for determining the compensation amount should be consistent with how the MCE determines the clearing prices and how payment is made.

Some members further claimed that generators’ offers do not necessarily reflect their true marginal costs (although EMC’s view is that the offers should be intended as such under the current market design). In summary, they argued in favour of the formula proposed by some of the RCP members.

In relation to the timeline for Option 2, Mr. Henry Gan asked when is the cut-off time for an affected MP to submit its claims to EMC. To that, Mr Paul Poh replied that EMC has checked with its external lawyer whose opinion is that the appropriate cut-off time is 10 business days from when that affected MP has received its preliminary settlement statement for the relevant affected dispatch day.

Voting by RCP members

The Panel was requested to decide on (i) whether it supports EMC’s proposal or the other proposal suggested by some the RCP members for the formula to calculate the compensation amount, and (ii) whether it supports Option 1 or Option 2 for the implementation. The matter was put to a vote by the RCP.
The record of votes was as follows:

(A) EMC’s proposal vs. proposal suggested by some RCP members for the calculation of compensation amount:

For proposal suggested by some RCP members:
Mr Philip Tan (representative of the generator licensee class of MP)
Mr Tay Swee Lee (representative of the generator licensee class of MP)
Mr Low Boon Tong (representative of the generator licensee class of MP)
Mr Dallon Kay (representative of the wholesale electricity market trader class of MP)
Mr Robin Langdale (representative of the financial community in Singapore)

For EMC’s Proposal:
Mr Francis J Gomez (representative of the retail electricity licensee class of MP)
Mr Henry Gan (EMC)

Abstained:
Mr Kng Meng Hwee (PSO)
Mr Lim Ah Kuan (representative of the MSSL)

(B) Whether to use Option 1 or Option 2:

For Option 2:
Mr Philip Tan (representative of the generator licensee class of MP)
Mr Low Boon Tong (representative of the generator licensee class of MP)
Mr Dallon Kay (representative of the wholesale electricity market trader class of MP)
Mr Robin Langdale (representative of the financial community in Singapore)
Mr Henry Gan (EMC)
Mr Francis J Gomez (Representative of the retail electricity licensee class of MP)

For Option 1:
None.

Abstained:
Mr Lim Ah Kuan (representative of the MSSL)
Mr Kng Meng Hwee (PSO)
(C) Proposal by some RCP members for calculation of compensation amount and Use of Option 2 for implementation:

This is an interim solution until the paper on the review of the price revision in SWEM is put up for discussion 6 months later and the finalisation would be even longer. Otherwise generators would not receive any compensation at all for such cases while the MCE re-runs are still on-going.

For:
Mr Philip Tan (representative of the generator licensee class of MP)
Mr Tay Swee Lee (representative of the generator licensee class of MP)
Mr Low Boon Tong (representative of the generator licensee class of MP)
Mr Dallon Kay (representative of the wholesale electricity market trader class of MP)
Mr Robin Langdale (representative of the financial community in Singapore)

Against:
Mr Francis J Gomez (representative of the retail electricity licensee class of MP)
Mr Henry Gan (EMC)
Mr Kng Meng Hwee (PSO)

Abstained:
Mr Lim Ah Kuan (representative of the MSSL)

Conclusion
By majority vote, the RCP supported the proposal suggested by some RCP members for the calculation of the compensation amount and the use of Option 2 for the implementation.

Proposed Review of Price Revision in SWEM

At its last meeting, the Panel further requested EMC to provide budget and timeline required to conduct a review of price revision in SWEM.

EMC presented the Panel with the Proposed Scope of Review as follows:

a. study the practices in other jurisdictions to find out:
   i. whether prices are subject to revision. If so, how and under what circumstances can prices be revised? Can market participants seek compensation arising from price revision and if so, who pays for the compensation costs and how is amount determined?
ii. how the market deals with the situation where no real-time dispatch schedule is produced and the situation where erroneous input data is used to generate the real-time dispatch schedule. Is compensation available to market participants in such situations and how is amount determined?

b. study internal procedures used by EMC for price revision and examine, for each historical case of price revision in the SWEM:
   i. the circumstances giving rise to the need for the price revision; and
   ii. the frequency and impact of the price revision on the market.

c. consider the rationale/justifications for price revision in SWEM and recommend whether price revision should remain or be abolished, and if it is to stay, whether SWEM should:
   i. retain the current price revision arrangement; or
   ii. augment the current price revision arrangement with some recommended changes;
   iii. evaluate how its recommendation would impact on various stakeholders and on the efficient and fair operations of the market;

d. identify, in relation to its recommendation:
   i. the changes to the current Market Rules that may be needed to support the recommendation;
   ii. the measure(s) that can be taken to mitigate any adverse impact the recommendation may have on any particular stakeholder

EMC proposed the following Deliverables for the proposed Review:

§ Consultation with relevant industry stakeholders to gather their comments/feedback in preparing the Draft Report.

§ A Draft Report setting out its assessment and recommendations in accordance with the scope of review

§ A Final Report setting out the assessment and recommendations in accordance with the scope of review specified in Para 3, taking into consideration all comments and feedback as received by the EMC

§ Presentation of the Final Report to the Rules Change Panel (RCP) for consideration

The Panel was informed that the proposed duration of the review is 6 months. The indicative time schedule is shown below:

- Apr 06: Invite comments on proposed scope of the review from industry stakeholders; Finalise scope of the review and present to RCP in May 06
- May-Aug 06: Consult industry stakeholders; Prepare Draft Report
- Sep 06: Circulate Draft Report for comments
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- Oct 06: Revise the Draft Report (incorporating stakeholders’ comments and EMC’s response to those comments) and circulate for comments
- Nov 06: Present Final Report to the RCP

The Panel supported EMC’s proposed review of the price revision in SWEM and tasked EMC to undertake this review. It further agreed to include this review in the updated RCP work plan for 2006 and prioritized it as of ‘high priority’.

8.0 Appointment of Consumer Representatives to the RCP
(Paper No. EMC/RCP/26/2006/245)

At the RCP Meeting held on 12 September 2005, the Rules Change Panel agreed, in principle, to recommend that two consumer representatives be added to the Panel. Also, at this meeting the RCP tasked EMC to consider the entire structure of the RCP.

Reviewing RCP’s current Structure

Objects of the Singapore Electricity Market (SWEM) Rules

As defined in Section 3.1.1 of Chapter 1 of the Market Rules, the objects of the Market Rules are as follows:
- to establish and govern efficient, competitive and reliable markets for the wholesale sale and purchase of electricity and ancillary services in Singapore;
- to provide MPs and MSSL with non-discriminatory access to the transmission system;
- to facilitate competition in electricity generation; and
- to protect the interests of consumers with respect to prices and the reliability and quality of electricity service.

Governance Structure in SWEM

The governance arrangement is designed to ensure that any change to the Market Rules serve the four objects of the Market Rules. The rule change process is as follows:

| The RCP recommends changes to Market Rules | The EMC Board considers RCP’s recommendations |
The EMA considers the EMC Board’s recommendations

Choice of Representation Model

To fulfill and promote the objectives of the Market Rules, it is desirable to create a Rules Change Panel that:

a. Represents the correct set of stakeholders
b. Has the required level and range of expertise
c. Is of a size that is conducive to effective decision-making
d. Does not result in decision-making that seeks to advantage or disadvantage any particular group of market participants, or individual market participants
e. Does not result in decision-making that seeks to advantage incumbents or any other particular interest group
f. Results in decision-making that is consistent with the overall goal of an efficient competitive and reliable marketplace
g. Protects the interest of consumers

In practice, it is difficult to meet conditions (d), (e) and (f). To overcome this difficulty, the Market Rules have in place a governance arrangement that vested the EMC Board and the EMA with the power, under defined circumstances, to override recommendations of the RCP. These circumstances were defined to reflect the intent of conditions (d), (e) and (f).

Hence, the design of RCP membership had focused on conditions (a), (b) and (c). As a result, all classes of market participants and service providers are represented, yielding a 13-member panel that is conducive for decision making. We call this the “Representation Model”.

Should the Representation Model be re-considered?

Given the important role of the RCP in the SWEM, a change to its membership model could have profound impact on the evolution of the SWEM. Hence, there must be compelling reasons for any change to be proposed.
Compelling Reasons for Change

Based on the important factors to consider in designing a membership model, the following conditions would be compelling reasons for re-considering the Representation Model:

1. The number of classes of stakeholders has increased such that full representation becomes infeasible;
2. The Rule Change Process has proven to be inefficient;
3. The voting process in the RCP has proven to be compromised by collusion; or
4. A significant number of recommendations made by the RCP have been inconsistent with the objects of the Market Rules.

In EMC’s view, conditions 1 through 4 are non-existent yet. On the contrary, the RCP has made notable achievements in enhancing the efficiency of the wholesale market during its first term from 1 January 2003 to 31 December 2005. In these three years, over 70 rule changes were implemented, of which only three recommendations had been referred back to the RCP by the EMC Board or the EMA. The achievement in this period reflected an efficient and unbiased rule change process that benefited the wholesale electricity market.

EMC could not establish any compelling reason to move away from the Representation Model.

Adding two representatives of consumers to the composition

With the RCP’s in-principle approval, EMC held discussions with the following organizations:

1. CASE (Consumer Association of Singapore)
2. ASME (Association of Small and Medium Enterprises)
3. SBF (Singapore Business Federation)
4. SMA (Singapore Manufacturers’ Federation)

Mr Poa reported that all four organizations agreed that appointing representatives of consumers to the RCP is a good idea. However, only CASE and ASME would be able to provide nominations for suitable candidates.

With at least 2 of the 4 organizations willing and able to make nominations, EMC concluded that the proposal was both desirable and feasible.
The Panel also requested that in compiling the list of consumer organizations qualified to make nomination, EMC seek recommendations from panel members on organizations that EMC can approach.

The Panel gave in-principle approval to EMC to propose changes to the market rules to add two consumer representatives to the RCP.

**9.0 Re-write of Section 6.4 of Chapter 1**
(Paper No. EMC/RCP/26/2006/255)

EMC proposed to adopt a re-write of Section 6.4 of Chapter 1 of the Market Rules. These sections were identified as being unnecessarily long and complex. The paper concludes that the plain English re-write enhances the readability of those sections of the Market Rules.

The Panel noted the contents of the paper.

The Panel supported EMC’s recommendation to re-write Section 6.4 of Chapter 1 of the Market Rules and the associated rule changes and would make the necessary recommendation to the EMC Board for adoption.

**10 Rule Change Work Plan** (Paper No. EMC/RCP/26/2006/01)

RCP’s achievements: March 2005 – February 2006

EMC took stock of the RCP’s achievement from Mar 05-Feb 06 (i.e. against the agreed RCP Workplan 2005).

Over this period, it was noted that the RCP effectively managed to complete about 86% of the issues (i.e. six out of seven issues belong to the ‘high’/‘medium’ category) on schedule. The only outstanding issue is ‘whether default levy should be charged to retailers’ which has been discussed over several RCP meetings with no consensus reached and the issue being referred to EMC for re-consideration time and again.

In addition to the issues accomplished in the 2005 Workplan, the RCP has also addressed other rule modification proposals submitted by the stakeholders as part of the rule change process provided for in the Market Rules. These include, for instance, rule modification proposals on shortening of the settlement cycle, rectification of price neutralisation rule, dispute resolution process, etc.

**Updated RCP Work Plan for 2006**

EMC presented an updated work plan for the Rules Change Panel for the next 12-24 months period for the RCP’s consideration.
The updated work plan took into account new issues raised by stakeholders, their priority ranking of the issues as well as EMC’s recommendations on the issues that the RCP should focus on.

The Panel was informed that consultation took place between 6 February 2006 – 6 March 2006 involving MPs, MSSL, PSO, SPPA and EMA.

The initial consultation was to take stock of remaining issues on agreed 2005 Work Plan and to identify new issues that have arisen over the past one year. 6 new issues have been identified, they are:

1. Phase Shifting Transformer (PST)
2. Review of Treatment of Embedded Generators.
3. Review of Scarcity Pricing
4. Review of Prudential Requirement Arrangement
5. Facility Violation Penalty Fix
6. Equity between Interruptible Load (IL) Providers and Gencos for Reserve Payment

Subsequently, EMC again met with the MPs, MSSL, PSO, SPPA and EMA to allow them to comment on these issues, discuss the scope of these issues and to prioritize them.

The overall priority ranking of the issues (in order of priority from the highest to the lowest) is given below in the Table below.

### Table 1: Ranking of issues by order of priority

<table>
<thead>
<tr>
<th>Issue No.</th>
<th>Issue Title</th>
<th>Overall Ranking</th>
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<tbody>
<tr>
<td>3.</td>
<td>Whether Default Levy Should Be Charged to Retailers</td>
<td>2.81</td>
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<tr>
<td>12.</td>
<td>Phase Shift Transformer</td>
<td>2.54</td>
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<td>13.</td>
<td>Review of Treatment of Embedded Generators</td>
<td>2.30</td>
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<tr>
<td>17.</td>
<td>Equity between IL and Gencos for Reserve Payment</td>
<td>2.13</td>
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<td>16.</td>
<td>Facility Violation Penalty Fix</td>
<td>2.11</td>
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<td>5.</td>
<td>Regulation anomaly – Generators “Trapped” at Regulation Minimum and Being Constrained On for Energy Generation and Being Paid at Market Clearing Price Below its Offer Price</td>
<td>2.05</td>
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</tbody>
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9. Compensation for Excess Regulation 2.00
7. Providing Historical Gencos’ Offer Prices 1.84
15. Review of Prudential Requirement Arrangement 1.80
6. Accurate Profiling of Regulation Requirement 1.73
11. The Real Time Pricing Schedule No Longer Reflects Energy Shortfall After EMC Adjusted Nodal Load Forecasts Following a PSO Energy Shortfall Forecast 1.67
8. Review of RCP Structure 1.60
14. Review of Scarcity Pricing 1.50
1. Incremental Enhancement of Rulebook Drafting 1.27
4. Review the Need for Detailed Design and Implementation of a Financial Transmission Rights (FTR) Regime 1.23
10. Review the Need for a Rewrite of the Rulebook 1.10

Arising from the consultation, many stakeholders have suggested that the issue on ‘Improving Transmission Planning and Augmentation’ has been removed from the work plan since this would be dealt with under ‘Statement of Opportunities’ handled by the EMA. The RCP agreed to this suggestion.

EMC recommended that the RCP discuss the prioritization of the market design issues and agree on the updated work plan as follows:

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<thead>
<tr>
<th>Expected completion/ commencement date</th>
<th>Issue No.</th>
<th>Issue Title</th>
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<tbody>
<tr>
<td>Within 9 Months (by December 2006)</td>
<td>3.</td>
<td>Whether Default Levy Should Be Charged to Retailers</td>
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<td></td>
<td>12.</td>
<td>Phase Shifting Transformer (Completed)</td>
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<td></td>
<td>13.</td>
<td>Review of Treatment of Embedded Generators</td>
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<td><strong>16.</strong></td>
<td>Facility Violation Penalty Fix</td>
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<td><strong>-</strong></td>
<td>Review of Price Revision in SWEM</td>
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<td><strong>8.</strong></td>
<td>Review of RCP structure**</td>
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<tr>
<td><strong>1.</strong></td>
<td>Incremental Enhancement of Rulebook Drafting**(ongoing)**</td>
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<td>Within 10 - 15 months  (by June 2007)</td>
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<td><strong>5.</strong></td>
<td>Regulation anomaly – Generators “Trapped” at Regulation Minimum and Being Constrained On for Energy Generation and Being Paid at Market Clearing Price Below its Offer Price</td>
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<td>Providing Historical Gencos’ Offer Prices</td>
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</tr>
<tr>
<td><strong>15.</strong></td>
<td>Review of Prudential Requirement Arrangement</td>
<td></td>
</tr>
<tr>
<td><strong>6.</strong></td>
<td>Accurate Profiling of Regulation Requirement</td>
<td></td>
</tr>
<tr>
<td><strong>11.</strong></td>
<td>The Real Time Pricing Schedule no Longer Reflects Energy Shortfall after EMC Adjusted Nodal Load Forecasts Following a PSO Energy Shortfall Forecast</td>
<td></td>
</tr>
<tr>
<td>Within 16-24 months  (by February 2008)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>14.</strong></td>
<td>Review of Scarcity Pricing</td>
<td></td>
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<tr>
<td><strong>4.</strong></td>
<td>Review the Need for Detailed Design and Implementation of a Financial Transmission Rights (FTR) Regime</td>
<td></td>
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<tr>
<td><strong>10.</strong></td>
<td>Review the Need for a Rewrite of the Rulebook</td>
<td></td>
</tr>
</tbody>
</table>

** EMC has already commenced work on these workstreams. They are placed highly in the recommended list of priorities for this reason rather than due to the ranking by from stakeholders.

+ This new item was included in the workplan by the RCP when it earlier discussed the paper on Compensation Arising from Market Energy Price Revisions (Paper No. EMC/RCP/26/2006/253). The RCP has ranked this item as of ‘high priority’ (i.e. to be completed by Dec 2006). They have decided to move issue No. 5 “Regulation anomaly – Generators “Trapped” at Regulation Minimum and Being Constrained
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On for Energy Generation and Being Paid at Market Clearing Price Below its Offer Price’ (originally placed under ‘high priority’ category) into the ‘medium priority’ category.

The Panel agreed to the updated Workplan and tasked EMC to monitor the progress of the agreed work plan.

11 PIMS Targets for FY 2006/2007
(Paper No. EMC/RCP/26/2006/02)

The Panel invited Mr. Tan Zing Yuen of EMC to the meeting.

Mr. Dave Carlson and Mr. Henry Gan, both of EMC, declared interest in the subject matter.

Mr. Kng Meng Hwee, as representative of PSO, abstained from the discussion.

Mr. Tan Zing Yuen presented EMC’s PIMS Targets for FY 2006/2007.

PERFORMANCE INCENTIVE MANAGEMENT SYSTEM – TARGETS AND MEASURES FOR FY 2005/2006

EMC’s achievements for FY 2005/06

<table>
<thead>
<tr>
<th>Measures</th>
<th>Targets %</th>
<th>Achievements %</th>
<th>Weight</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 System availability</td>
<td>99.75</td>
<td>99.97</td>
<td>25</td>
<td>22.00</td>
</tr>
<tr>
<td>2 Pricing accuracy</td>
<td>99.60</td>
<td>100.00</td>
<td>25</td>
<td>25.00</td>
</tr>
<tr>
<td>3 Settlement accuracy</td>
<td>99.90</td>
<td>100.00</td>
<td>25</td>
<td>25.00</td>
</tr>
<tr>
<td>4 Customers responsiveness</td>
<td>75.00</td>
<td>80.80</td>
<td>15</td>
<td>5.80</td>
</tr>
<tr>
<td>5 Rules change support</td>
<td>80.00</td>
<td>73.90</td>
<td>5</td>
<td>-3.05</td>
</tr>
<tr>
<td>6 MAU support</td>
<td>75.00</td>
<td>94.12</td>
<td>5</td>
<td>5.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>79.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonus</td>
<td></td>
<td></td>
<td></td>
<td>$439,600</td>
</tr>
</tbody>
</table>
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EMC highlighted to the Panel members that the target for MAU support was increased to 75% after EMA’s review in September 2005. The target considered by the RCP in January 2005 was 70%.

Panel’s comments

No comments were received.

The RCP members present noted that the recording of some respondents’ views on EMC’s performance for Rule Change support as “neither satisfied nor dissatisfied” would have resulted in a lower overall satisfaction rating. In cases where this mid-point assessment was made with comments along the lines that the respondent was unfamiliar with EMC’s services in this regard or had not had requirement for these services, then perhaps these scoring should have been excluded from the overall rating calculation.

Summary of proposals for FY 2006/07

EMC proposed several changes to the PIMS methodology and the targets for FY 2006/07.

They are:

- PIMS targets should be set together with the revenue cap at the beginning of each regulatory period;
- The maximum revenue should be fixed at $600,000 and should be independent of EMC’s revenue;
- In the survey of the three qualitative targets, the middle band (neither satisfied nor dissatisfied) should be removed and a box for “Not applicable” should be included;
- For the survey of the MAU support, responses from MSCP and DRC only will count towards the PIMS bonus; and
- PIMS targets for System availability (99.75% to 99.80%) and Pricing accuracy (99.60% to 99.70%).

Targets for FY 2006/07

<table>
<thead>
<tr>
<th>Measures</th>
<th>Targets %</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 System availability</td>
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<td>75.00</td>
<td>5</td>
</tr>
</tbody>
</table>
Comments by Panel members and EMC’s responses

1) Targets for FY 2006/07

Panel’s comments
Where EMC exceeds its targets, then consideration should be made to increase them for the new financial year.

However this may impose additional costs on EMC to meet the ever-tighter targets. A point will be reached where it will no longer be cost-effective to the industry for EMC to do so.

The quantitative targets are already at very high levels and it may not be feasible to increase these further without corresponding disproportionate escalation in costs.

On the other hand, the qualitative targets appear low, particularly the MAU and Customer Responsiveness where EMC consistently achieved high ratings. The Panel did not suggest lowering the target for the Rules Change support but rather hopes EMC strives to meet the target next year.

EMC’s response
EMC concurred with the Panel’s comments that the quantitative targets are already high albeit EMC has proposed increases in the System availability and Pricing accuracy as our commitment to improve our performance.

On the qualitative measures, EMC believes that as we evolve in our role, there will be situations where we could face situations which are at times in conflict with one side of the market or the other. EMC does not propose changing the targets.

2) Maximum bonus

The Panel supported EMC’s proposal to keep the maximum bonus at $600,000 and not link it to EMC’s annual revenue.

3) Qualitative targets survey form

Panel’s comments
The Panel supported EMC’s proposal to remove the middle band for the response to the survey on the qualitative targets (i.e. “neither satisfied nor dissatisfied”).
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The Panel also agreed to EMC’s proposal to consider under the MAU support measure only the MSCP and DRC’s responses and not the industry’s.

**EMC’s response**

EMC recommends removing the band in the survey form that states “neither satisfied nor dissatisfied”.

Mr. Lim of SP Services Ltd commented that provision must be made for respondents who feel that they are truly neither satisfied nor dissatisfied with EMC’s services.

EMC should look into how the respondents have rated its services and seek to improve further rather than compel respondents to either rate them “satisfied” or “dissatisfied”.

He recommends that EMC keeps the band of “Neither satisfied nor dissatisfied” and include “Not applicable” for those who were unfamiliar with EMC’s services or had not had requirement for these services.

**Conclusion**

The Rules Change Panel:

- supported EMC’s PIMS results for FY 2005/06 and the PIMS bonus computation;
- requested that EMA re-look at the rating comments that suggested a “not applicable” rating rather than a “neither satisfied nor dissatisfied” rating; and
- considered EMC’s proposals for the PIMS for FY 2006/07 and provided comments to the EMC and EMA.

**12 CLAIMS FOR EFFICIENCY GAINS - FY 2005/2006**

The Panel was informed that EMA, in its letter of 17 June 2005 to EMC, had requested EMC to seek the views of the RCP on:

1. EMC’s claims for efficiency gains for FY 2005/2006; and
2. EMC’s justifications for these efficiency gains.

EMC had originally requested for the RCP members to comment by circulation on or before 9 May 2006.
Mr. Koh Kah Aik in his email response stated that “the terms of reference of Rule Change Panel by its very name are on market rules and market operations. This subject rightfully falls under performance regulatory regime of a Licensee and should be a determination of EMA”.

Dr. Daniel Cheng who supported Mr. Koh’s comment also added that “RCP members are now requested to review the efficiency gains of EMC. But such a request is not related to any change to the Market Rules. Hence, according to the TOR, it is doubtful if the RCP is empowered to accede to the request.

The following points supports RCP refraining from making any comment:
(a) There are more appropriate forum e.g. IFEF;
(b) the matter at hand is economic performance regulation which is not a rule change matter;
(c) many members of RCP may be nominated by their employers to represent them on rule change matters only; and
(d) the collective expertise of RCP members may not cover economic performance regulation of a licensee in the market.

In summary, in what capacity would RCP comment on the matter at hand?

Dr. Cheng also asked if certain RCP members should refrain from making any comments, e.g. EMC and PSO representatives (conflict of interests) and SPPowerGrid representative (non-participating MP).

Mr. Robin Langdale opined that as the EMC efficiency gains have significant financial consequences since they affect the fees that EMC charges the market, the EMC claims for efficiency gains should be discussed at a RCP meeting. This was supported by Mr Lim of MSSL.

The EMC’s claims for efficiency gains were then tabled for discussion at this RCP meeting.

Panel’s Comments at 26th RCP Meeting:

The comments by the RCP following its review of EMC’s claims and justifications for efficiency gains for FY 2005/2006 and EMC Management’s responses to the comments are appended below:
26th RCP Meeting – 11 May 2006

1. Appropriateness of RCP to review EMC’s claims for efficiency gains

The comments by certain members of the RCP with respect to the appropriateness of the RCP to review and comment on EMC’s claims for efficiency gains are as follows:

- These are largely financial in nature and many members of the RCP are not equipped with adequate know-how to provide the necessary response. In certain instances the line between efficiency gains and non-efficiency gains may be grey.
- The RCP members do not know the EMC operations well enough to have an insight into EMC’s financial performance.
- There are other independent parties that could be better qualified to review EMC’s claims, for example, an audit firm.

2. Claims for efficiency gains

Variance should be analysed by comparing the actual expenses incurred against planned initiatives.

No other comments were received on EMC’s claims for efficiency gains.

There being no other matters, the meeting ended at 1.30pm with a vote of thanks to the Chair.

Dave E Carlson
Chairman

Minutes taken by:
Eunice Koh
Market Panel Administrator