

**MINUTES OF THE 36th MEETING OF THE RULES CHANGE PANEL
HELD ON TUESDAY 11 MARCH 2008 AT 10.15AM
AT ENERGY MARKET CO. PTE LTD
9 RAFFLES PLACE #22-01
REPUBLIC PLAZA, SINGAPORE 048619**

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

Absent with Henry Gan
Apologies: Low Boon Tong

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 10.15am. The Notice and Agenda of the meeting were taken as read.

2.0 Confirmation of Minutes of the 35th Rules Change Panel Meeting

The Minutes of the 35th Rules Change Panel meeting held on Tuesday, 11 January 2008 was tabled and taken as read.

Mr Tay Swee Lee referred to page 12 of the draft Minutes where his question on “given the current Singapore context, what would be the minimum number of new entrants into the market in order for the HHI to go below 1800” and Mr. Poa Tiong Siaw’s response was recorded as a post meeting note.

Mr Tay affirmed that his question was raised during the meeting and requested that the reference to the post meeting note be removed. The Meeting agreed to the amendment.

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

Minutes of 36th RCP Meeting – 11 March 2008

Action

3.0 Matters Arising

The Panel noted that the follow-up actions were completed on the matters arising as outlined, except for the following:

3.1 Adequacy of the MP Suspension Provisions

The Panel was informed that further to EMC's letter on behalf of the Panel to EMA, the EMA had requested clarification on what the relevant provisions of the Companies' Act were. EMC had responded to EMA's query. EMC will keep the Panel informed of any further response from the EMA to the Panel's letter on their concern regarding customers' deposits placed with defaulting retailers.

EMC

3.2 PSO's Proposed Expenditure and Fees
(Paper No. EMC/RCP/35/2007/02)

On EMC's request to the PSO for follow up action to the RCP's comments, the Panel was informed that a formal request is to be submitted to the EMA Regulation Division for response.

The Panel agreed that EMC would write to the EMA accordingly.

EMC

3.3 Publishing Generation Offers and Dispatch Quantities
(Paper No. EMC/RCP/35/2007/CP16)

The Panel was informed that EMC would be reviewing whether there are changes to the offer curves over different periods of time. EMC will report to the Panel at the May 2008 meeting.

EMC

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.

Minutes of 36th RCP Meeting – 11 March 2008

Action

6.0 Rules Change Work Plan

(Paper No. EMC/RCP/36/2008/01)

Mr. Low Boon Tong, who was unable to attend the meeting, sent in his feedback on the Rule Change Work Plan. Firstly, he commented on the drafting error for item 14 in Annex 2 which was a repeat of the preceding item 13.

EMC provided the Panel with an update of that section.

Mr. Low also requested to confirm if the fourth comment "Consider using weighted average MNN price for settlement under this situation" is accurate for item 24 in Annex 2 of the paper. He believed that this does not reflect feedback from the MP. The suggestion is to settle all MNNs at all times at weighted average MNN price i.e. at Vesting Contract Reference Price and not only when there is a wide price separation. The words "under this situation" should be removed.

EMC informed the Panel that the comment is accurate because following the meeting with the market participants EMC would send them a copy of their comments for confirmation. The fourth comment has been confirmed by the market participant before it was put into the Rule Change Work Plan paper.

Prior to the meeting, PSO also sent an email requesting to modify their description of item 19 to "PSO has observed that there were instances where some generating units were scheduled for Regulation Reserve of about 1MW. This is unrealistic as Generating units' output fluctuations and measuring instrument errors are typically much larger than that. It is therefore impossible for the generating units to respond to such small quantities of reserve. This at times resulted in PSO being accused by certain Genco of excessive dispatch of Regulation. PSO proposed that there should be a minimum of 5MW scheduled for each GRF scheduled by the MCE to provide Regulation Reserve." EMC has made the necessary updates.

EMC presented a consolidation of the achievements of the Rules Change Panel (RCP) against the agreed Rules Change Work Plan for 2007. For the high priority issue – of 8 issues to be dealt with 4 issues have been completed and work has commenced on the 4 remaining issues. For the medium priority issues, of 3 issues to be dealt with, 1 issue has been completed and work has commenced on 2 issues. Thus the RCP has met its targets set in the 2007 Workplan. In addition the RCP also addressed 8 issues outside of the work plan.

Minutes of 36th RCP Meeting – 11 March 2008

Action

Prioritisation for 2008

The Panel was informed that EMC presented stakeholders with a list of 14 issues that remained in the work plan for 2007 and eleven other additional issues which stakeholders brought up for consideration and to be included in the work plan for 2008. These are:

1. Mixed Integer Programming (MIP) for Reserves
2. Implementation of a Lower Regulation Price Cap
3. Number of business days for Suspension Order Hearing
4. Generating units scheduled by the MCE to provide regulation must have a minimum scheduled regulation of 5MW
5. Multiple generating units of less than 10MW each at the same physical location, but with an aggregate capacity of more than 10MW, shall be subject to central dispatch.
6. Introduction of Tie Breaking
7. Guidelines for Registration and Settlement of GRF/GSF with Alternative Fuels
8. Electricity Vending System's (EVS) Impact on Market Rule Changes
9. De-registration of Generation Facilities Within a Market Participant's Premises
10. Review of Price Disparity between Market Network Nodes (MNNs)
11. Engaging Academic Institutions to look at alternative reserve payment methodologies between Interruptible Loads (ILs) and Gencos

The Panel was also informed that EMC received 2 new submissions after the completion of market consultation and these are:

1. Review EMC fee methodology to charge fee to Interruptible Loads (ILs) providers
2. Meter Tampering Cases – Settlement of Adjustment

The Panel was requested to consider if these submissions should be included and under which category in the new Work Plan.

Mr. Kay reiterated that EMC consulted the stakeholders and agreed on the prioritization of market issues. He noted that despite the consultation process, late issues were submitted which negates the intention of the consultation process. He asked if there is a process or procedure when adding additional items after the consultation process.

The Panel was informed that the RCP has to agree on whether or not the Panel would entertain late submissions and to determine the priority ranking.

The Panel agreed that late issues will be considered if they have marked significance and impact to the market.

Minutes of 36th RCP Meeting – 11 March 2008

Action

Based on feedback from the consultation process and allowing for work that have been significantly advanced in the current 12 months period, EMC proposed the following high level rankings for the Panel's consideration:

Expected completion/ commencement date	Issue No.	Issue Title
Within 12 Months (by March 2009)	24	Review of Price Disparity between MNNS
	8	Implementation of Agreed Changes Arising from the Review of Price Revision in SWEM
	1	Simultaneous/Consecutive Tripping of Multiple GRFs
	2	Reserve Requirement to meet largest risk, not just the largest (scheduled output+ reserve) online GRF: Power Station with only one remaining generation connection to the Grid.
	4	Payment for Black Start Capability Service
	5	Providing Historical Gencos' Offer Prices*
	3	Trial of Proposed Prudential Methodology*
	16	Implementation of a Lower Regulation Price Cap
	18	Multiple generating units of less than 10MW each at the same physical location, but with an aggregate capacity of more than 10MW, shall be subject to central dispatch.
	6	Shortening of Settlement Cycle
	15	Mixed Integer Programming (MIP) for Reserves
	25	Engaging Academic Institutions to look at alternative reserve payment methodologies between Interruptible Loads (ILs) and Gencos.

Minutes of 36th RCP Meeting – 11 March 2008

Action

Expected completion/ commencement date	Issue No.	Issue Title
Within 13 - 24 months (by March 2010)	12	Review of Scarcity Pricing
	23	De-registration of Generation Facilities within a Market Participant's Premises
	7	Compensation for Excess Regulation
	17	Number of Business Days for Suspension Order Hearing
	19	Generating units scheduled by the MCE to provide regulation reserve must have a minimum scheduled regulation reserve of 5MW.
	11	New Forms of Collateral
	22	Electricity Vending System's (EVS) Impact on Market Rule Changes
	20	Introduction of Tie-Breaking
	9	Composition of RCP
	21	Guidelines for Registration and Settlement of GRF/GSF with Alternative Fuels.
	14	Review the Need for a Detailed Design and Implementation of a Financial Transmission Rights (FTR) Regime
	10	Incremental Enhancement of Rulebook Drafting (On-going)
	13	Review the Need for a Rewrite of the Rulebook

*These are issues which work has already commenced. It makes sense to continue working on them. Hence, they are placed highly in the recommended list of priorities for this reason rather than due to the ranking by stakeholders.

On Item 25 – Engaging academic institutions to look at alternative reserve payment methodologies between ILs and Gencos – Mr. Langdale stated that as it does not involve the RCP, the issue could be done in parallel with the RCP's work. EMC informed that issues raised during the consultation process would require resources from EMC's Market Administration (MA) team and this would include engaging with the consultant, reviewing the outsourced work and to put the proposal back to the RCP for consideration.

Minutes of 36th RCP Meeting – 11 March 2008

Action

Mr. Kay then asked EMC to provide the criteria for selecting an academic institution with the relevant domain knowledge versus consultants.

EMC replied that they would first source for people with an understanding of the NEMS, such as the consultants hired by the EMA or any academic that is familiar with the electricity market.

EMC will provide a scope of exercise on the work to be performed by the academic and also the costs involved for the Panel's comments if desired by the Panel.

EMC

Item 16 – Implementation of Lower Regulation Price Cap

In response to Mr. Tay Swee Lee's query as to why Item 16 was placed above Item 18 when the rankings were not so, the Panel was informed that the EMA plan to direct EMC to change the market rules to implement a lower regulation price cap. Mr. Langdale was of the view that since this would not involve the RCP the item should be excluded from the RCP Workplan. The Panel agreed that Item 16 be excluded from the proposed Workplan.

Item 20 - Mr. Kay requested EMC to bring the Introduction to Tie-breaking up in ranking.

After much debate, the Chairman called on the Panel to vote on the whether the following issues should ranked within the 12 month category:

Item 20 – Introduction to Tie Breaking

Voted for : Mr. Dallon Kay

Not Supported: Mr. Philip Tan, Mr. Tay Swee Lee, Dr. Daniel Cheng and Dr. Goh Bee Hua

Review of EMC fee methodology to charge fee to IL providers.

Voted for: Mr. Philip Tan

Not Supported : Ms. Annie Tan, Dr. Goh Bee Hua, Mr. Robin Langdale and Mr. Dallon Kay

Meter Tampering Cases – Settlement of Adjustment

Voted for: Mr. Lawrence Lee, Dr. Goh bee Hua, Mr. Philip Tan and Mr. Tay Swee Lee

Not Supported: Mr. Dallon Kay and Mr. Robin Langdale

The Panel then agreed that the Meter Tampering Cases – Settlement of Adjustment will be ranked in the high priority list of within 12 months.

Minutes of 36th RCP Meeting – 11 March 2008

Action

The Panel also agreed that Item 25 - Engaging academic institutions to look at alternative reserve payment methodologies between ILs and Gencos – will be moved down to the medium priority list of within 13 – 24 months.

Philip Tan commented that if any of the issues in the within 12 months list did not materialise, for example, the Panel voted against the implementation after the Trial of the Proposed Prudential Methodology, then the next first issue in the within 13-24 months list would move up into the within 12 months list in place of the issue that did not materialise.

This was provided very little work was expended on the issue(s) that did not materialise.

Based on the above changes, the Panel approved the Rule Change Work Plan for 2008.

7.0 Appointment of Member to the Technical Working Group
(Paper No. EMC/RCP/36/2008/02)

The Panel was informed that a vacancy has arisen as a result of the resignation of Mr. Lai Shang Voon (nominated by SembCorp Cogen) who is a representative of Market Participants. Given the appointment guidelines, the vacancy should be filled by a representative of a Market Participant.

On 30 January 2008, EMC invited nominations from all market participants who are not already the nominating organisation of a current TWG member. Three nominations from Market Participants were received.

EMC recommended that the Panel appoint Mr Loh Chin Seng of SembCorp Cogen Pte Ltd to the TWG as a market participant representative.

The Panel **supported** the appointment of Mr. Loh Chin Seng to the TWG as a market participant representative for the period from 15 March 2008 to 20 January 2009.

8.0 Changes Arising from the Review of Price Revision in the Singapore WEMS (Paper No. EMC/RCP/36/2008/272)

The Chairman circulated an email to the meeting from Mr. Low Boon Tong.

Mr. Low's email indicated that he disagreed with the assertion that all generator bids will be at SRMC. Generators need to offer their power in such a way as to minimize the risk against delivery contracts (CfDs) and to ensure compliance with their gas take or pay obligations. These are drivers that can require generators to bid some of their prices below SRMC.

Minutes of 36th RCP Meeting – 11 March 2008

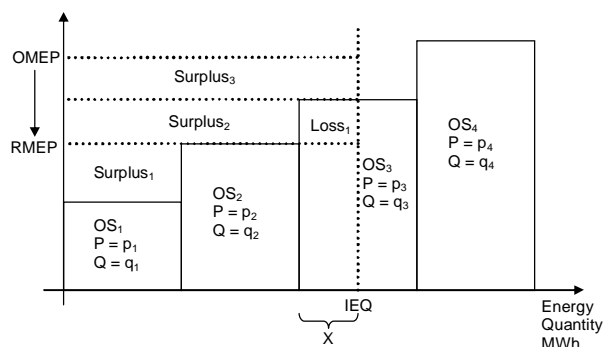
Action

Mr. Low also indicated that Compensation (C) as recommended in the change proposal amounts to pay as bid as opposed to pay at marginal prices. This is inconsistent with the principles of the Singapore Electricity Market.

For those reasons stated above, Mr. Low proposed the compensation payments should be as identified as Compensation (A) as referred to on Page 10 of the paper.

The Panel was informed that following the decision made at the 33rd RCP meeting in July 2007, EMC proposed rule changes to remove Type 4 price revisions and clarify the scope of erroneous inputs to the MCE that would trigger off price revision under Type 2 reruns.

To ensure that generators do not suffer losses, EMC also proposed a compensation arrangement in the event of a downward price revision.



There are 3 options for compensation, namely:

- (A) - paying the generators “Surplus₂” and “Surplus₃” and “Loss₁”, or
- (B) - paying the generators “Surplus₂” and “Loss₁”, or
- (C) - paying the generators just “Loss₁”

EMC proposed Compensation C which would strike a balance between ensuring that generators are not penalised for reacting to high price signals, without over-burdening load/consumers who were also not responsible for the price revision. EMC also proposed implementation procedures, whereby affected gencos would submit compensation claims to EMC for consideration.

The Panel was informed that the time required for implementation is estimated by EMC (Market Operations) to be about 4 months after the EMA has approved the proposed rule changes. The implementation work will be done in-house, with an estimated internal resource costing of \$48,000.

Minutes of 36th RCP Meeting – 11 March 2008

Action

Mr. Langdale questioned the assumption that Generators' offers are good proxies for their marginal production costs, which forms the basis for analyzing the financial impact of price revision on generators. He opined that when a generator offers multiple offer stacks, it is based on the premise that the generator would receive the clearing price for its whole production quantity, and the individual offer stacks generally do not reflect the generators' marginal cost. In his opinion, the whole argument regarding price revision is based on a false premise, and any future presentations on this subject should not start with this false premise.

Mr Tay Swee Lee pointed out that this false premise was clearly shown in the example of 31 August 2005, period 48 where an actual offer of 130 MW was made at negative \$12 per MWh. This showed that the individual offer stacks do not always reflect generator's marginal cost. Mr Paul Poh pointed out that in the same example the generator also offered 20 MW at \$4500 per MWh. If it is argued that negative \$12 per MWh does not reflect marginal cost then it can't be argued that \$4500 reflects marginal cost. The important premise is that the market is designed on the basis that the design best incentivise generators to offer at marginal cost and generators are free to submit offers. Thus it is up to generators to ensure that their offers reflect their marginal cost.

Rule Amendments to Remove Type 4

Mr. Philip Tan requested the Panel to reconsider removing Type 4 reruns, in view of the price separation incident on 19 January 2008.

The Chairman stated that the Panel initially chose to remove Type 4 price reruns based on the principle that ex-ante precautions should not be removed ex-post simply because nothing untoward had occurred. He sought clarification from the Panel if retaining Type 4 price reruns was meant to correct prices on 19 January 2008, which were perceived to be "invalid". He suggested that the 19 January incident involved more than just Type 4 reruns, and it would be more appropriate to let it be addressed by the ongoing EMA and MSCP investigation.

Dr Kang reiterated that the PSO does not support price reruns. One possible adverse effect is that generators might be reluctant to run up their units when called upon by PSO during a power shortage, if prices could subsequently be revised downwards.

The Panel was informed that there is a pending EMA's proposal to deal with price separation by replacing incorrect prices with appropriate ones. If the proposal goes through as an urgent rule change, it will be reported to the RCP for endorsement in 12 months.

Minutes of 36th RCP Meeting – 11 March 2008

Action

Mr. Langdale suggested deferring the removal of Type 4 price reruns pending clarity on the status of EMA's proposal to deal with price separation.

The Panel agreed to defer the removal of Type 4 price reruns pending clarity on the status of EMA's proposal to deal with price separation.

Compensation

The Chairman noted that generators should be compensated in the event of a price revision, although there are no current provisions in the market rules. There is thus the need for a basis to calculate the compensation amount which, in the absence of cost and profit data from the generators, necessitates the using of a proxy. Although EMC's proposal for Compensation C has not met with the approval of the RCP, RCP's counterproposal of Compensation B has also been turned down by the EMC Board.

The Panel was informed that EMC does not favor one party over another but rather strives to balance the interests of various stakeholders and ensure market efficiency. In the absence of demand-side bidding, there is a need to balance the interests of consumers because the traditional assumptions of willing buyers and willing sellers do not hold.

It was noted that some may feel that generator offers underestimate their marginal costs, which in turn leads to under-compensation under Compensation C. However, the EMC Board feels that Compensation B is an over estimation.

One way to deal with the issue is together with Compensation C, an additional provision be made for a generator to justify for more compensation by showing that Compensation C does not cover its cost.

The Chairman asked the Panel if they would want to discuss the compensation proposal at the next meeting when the issue of removing Type 4 price reruns is raised again. He also sought the Panel's agreement if the RCP wants to take back the previous recommendation of Compensation B.

Mr. Langdale sought clarification if the EMC Board has the right to over-ride RCP's recommendation. He was informed that the EMC Board can indeed do so but only on specific grounds such as if there is inequity between Market Participants. Mr. Langdale suggested re-looking the issue of Compensation at the next meeting.

EMC

Mr. Philip Tan requested EMC to update the Panel on the progress of EMA's urgent rule change.

EMC

Minutes of 36th RCP Meeting – 11 March 2008

Action

9.0 Composition of Rules Change Panel
(Paper No. EMC/RCP/36/2008/273)

Currently the Market Rules make exemptions for the Market participants/MSSLs who are affiliates of Temasek Holdings Pte Ltd to be concurrently represented on the RCP. It is intended in the Market Rules that the composition of the RCP should result in fair representation. This is feasible only in a privatized electricity industry where ownership is not concentrated. Since the sale of gencos has not been announced, it has become necessary to extend the exemptions for such market participants/MSSL so that they can be concurrently represented on the RCP.

The current exemption period ended on 31 December 2007. The proposal sought to extend the exemption period until end of 31 December 2008.

The Panel noted the contents of the paper.

The Panel **supported** EMC's recommendation to amend Section 2.3.3 of Chapter 3 of the Market Rules and would make the necessary recommendation to the EMC Board for adoption.

There being no other matters, the meeting ended at 1.20pm with a vote of thanks to the Chair.

Dave E Carlson
Chairman

Minutes taken by:
Eunice Koh
Senior Executive - Corporate Secretariat