MINUTES OF THE RULES CHANGE PANEL
75th MEETING
HELD ON TUESDAY, 02 SEPTEMBER 2014 AT 9.35AM
AT ENERGY MARKET CO. PTE LTD
238A THOMSON ROAD #11-01
NOVENA SQUARE, SINGAPORE 307684

Present: Paul Poh (Chairman) Michael Wong
Chan Hung Kwan Pak-Juan Koe
Daniel Lee Phillip Tan
Dr. Toh Mun Heng Sean Chan
Dallon Kay Toh Seong Wah
Lawrence Lee Luke Peacocke

Absent with apologies: Frances Chang Loh Chin Seng
Kng Meng Hwee

In Attendance: Tan Liang Ching Wang Jing
(EMC) Serena Ho Jo Ong
Lucia Loh

1.0 Notice of Meeting

The Chairman called the meeting to order at 9.35am. The Notice and Agenda of the meeting were taken as read.

2.0 Confirmation of Minutes of the 74th RCP Meeting

The Minutes of the 74th RCP meeting held on 08 July 2014 were tabled.

Mr. Lawrence Lee requested EMC to correct typographical errors in the meeting header, where the meeting was recorded to be “70th RCP Meeting – 7 November 2013” when it should be read as “74th RCP Meeting – 8 July 2014”.

Subject to the above amendment to the Minutes, the RCP approved the Minutes.

2.1 Matters Arising

2.1.1 Monitoring List – Number of Market Clearing Engine (MCE) Re-runs

In response to the RCP's request to the PSO on the network status data, PSO sent a written response dated 29 August. They stated that they did a testing of a substation control system (SCS) to validate that the SCS database matched the database at the PSO EMS.
This was done by simulating “opened” and “closed” indications at the SCS. During the 2 periods in question, the network status files sent to EMC were generated during the testing. The simulated status of the equipment (instead of its actual status) was automatically captured in the files that had to be sent to EMC at least 5 minutes before the start of each dispatch periods. PSO also explained that given the large volume of data that needs to be captured and the short time before it needs to be sent to EMC it was not possible to verify the accuracy of the data.

Mr. Tan Liang Ching noted that usually, the PSO would choose to do the testing outside of the window whereby the network status data would be captured. However, at times, there may be delays. He further noted that there was no significant price impact for these instances.

Mr. Sean Chan noted that the PSO’s response referred to the incident to be on 15 May, whereas the Panel’s question raised was for 27 May. EMC clarified that it was an error and should be referred to the 27 May incident.

Mr. Michael Wong was concerned that since PSO should be in the best position to ensure accuracy of the network data and yet PSO stated in their reply that it was not possible to verify all network data before it was sent to EMC, where then is the assurance that MCE runs are error free. He mentioned that all market players are subject to gate closure timeline requirements and there should not be any exception. However, data accuracy should not be compromised and as such if PSO finds that 5 minutes lead time was insufficient for the PSO to verify the data before sending to EMC, they should raise it for review.

The Chairman stated that a balance between accuracy and timeliness/relevance of data must be achieved, as the network status data is used to produce the real-time dispatch schedule and should be captured as close to real-time as possible.

EMC will raise the issue of the incident on 27 May with the PSO again and will revert to the Panel.

**2.1.2 Introduction of Regulation Effectiveness Factor**

(Paper No. EMC/RCP/74/2014/CP49)

The RCP tasked EMC and the PSO on (a) the implementation cost and time and (b) the effectiveness of implementing the REF based on

- Option A: Correlation score only;
- Option B: Correlation, Delay and Precision Scores
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Mr. Tan informed the Panel that after discussion with PSO, for Option B, the PSO felt that the inclusion of the Delay score was not relevant in SWEM’s context. However, the PSO did conduct simulations incorporating the Precision score which measures the absolute differential between actual and the required response.

To derive the combined rating, the PSO calculated the Precision score for all regulation providers, and nominally gave equal weightage to both the Correlation and Precision Scores. The ratings of 23 units that were scheduled to provide regulation during the test period were tabulated.

There were 6 units that did not make the “A” grading when only the Correlation score was used, compared to 3 units when the combined score (for Correlation and Precision) was used.

Mr. Tan added that with the inclusion of the Precision score component, overall grading improved with almost 90% of the units classified under grade A.

Mr. Luke Peacocke commented that if 90% of the units had the same score, then there seem to be limited benefits in introducing an effectiveness factor. Mr. Tan said that EMC is proposing that the regulation revenue collected be re-distributed among providers in proportion of their ratings. He raised 3 points for the Panel to note:

1) Using only Correlation score shows up greater differentiation among units.
2) As the results only comprise those that were actually scheduled for regulation during the test period, the 23 units that were graded forms only a subset of all providers. Going forward, there could be more regulation providers and the introduction of REF could encourage better behavior and performance.
3) If a wider distribution of grades is desired, the grading thresholds that are used to classify providers could be adjusted.

Dr. Toh Mun Heng asked why units 2, 3 and 4 are persistent in under-performing and whether it was a characteristic of a particular type of generators. Mr. Tan replied that the identities of the units are not revealed.

Mr. Kay asked if the under-performing units belong to the same market participant (MP). He added that if they belong to the same MP, the effectiveness of implementing the proposal would be different than if they belong to different MPs. Mr. Tan said that he is unable to release the confidential information.
Dr. Toh asked whether the scores computed are also used as a basis for certain payments, and not just for ranking. Mr. Tan replied that the 2 sets of scores presented are for simulation, almost like a proof of concept that they can be calculated. If the proposal is implemented, then these grading would affect payment received.

Mr. Tan added that there was no particular reason to specifically incorporate the Precision score. We could possibly use only the Correlation score, which shows up greater differentiation and will likely be simpler to implement. We could also think about how to set the benchmark so as to show up greater differentiation.

Mr. Peacocke commented that if the grading is biased against a particular generating technology, which cannot be easily modified to become more responsive, then the intent of the proposal (to encourage more responsive performance) would be lost. It may end up being punitive and unlikely to encourage investments to modify the provider’s performance. He requested the need to think about that because no one is going to respond to the signal.

To Mr. Kay’s query on whether units in the table are ordered according to the quantity of regulation scheduled, Mr. Tan replied that there is no apparent order and units are randomly ordered.

Mr. Peacocke felt that it will be useful to have incentives for performance. He pointed out that the issue here is whether we should define the performance in absolute or relative terms. His view is to use absolute performance standards.

In reply to Mr. Kay’s question on the rationale for not incorporating the regulation effectiveness factor into scheduling, unlike that for reserve, the Chairman said that the regulation requirement is set to meet the difference between forecast and actual load, and is not affected by gencos’ effectiveness per se. Reserve requirements, on the other hand, is set on a different basis and are affected by gencos’ effectiveness.

EMC estimates that an additional cost of $200,000 would be required to implement the proposal. PSO has not returned with their resource estimates if additional resources are required.

Mr. Wong requested for PSO to work out the results of the past four quarters so that we could assess whether the same units have been consistently under-performing and if so PSO could work with the particular Genco to improve their responsiveness in providing regulation. It would be more direct and effective than introducing REF. The Chairman and Mr. Tan responded that this will entail significant efforts on PSO’s part, given the large amounts of data involved. EMC will check with PSO on the feasibility of providing 4 quarters of data.
Mr. Daniel Lee pointed out that providing 4 quarters of data could also reveal the identities of some of the units as some of the newer units would not have 4 quarters of data available.

The Panel decided to wait for the PSO to provide their cost estimates before making a decision.

2.1.3 Reconciliation of the Demand Forecast
(Paper No. EMC/RCP/74/2014/CP52)

Mr. Tan informed the Panel that PSO has offered to publish both the actual gross generation SCADA data and VSTLF on EMA’s website, on a weekly basis.

Mr. Kay indicated a preference for the data to be published on EMC’s website, in accordance with the market rules.

The Chairman replied that there will be no additional costs incurred if the PSO publishes the data on EMA’s website, while a one-off cost of $37,000 would be incurred for publication on EMC’s website.

The Panel was asked to vote on whether the information should be published on the EMA’s website or EMC’s website.

The Panel unanimously voted for the PSO to publish both the actual gross generation SCADA data and VSTLF on EMA’s website, on a weekly basis.

The Panel also requested the following:
   a) In what format will the data be published?
   b) When will the data be published?

EMC will work with PSO on the above items, and update the Panel once these details are firmed up with PSO.

3.0 Monitoring List

Under Item 1 – Number of Market Clearing Engine (MCE) Re-runs

Mr. Tan Liang Ching informed the RCP that from June to July 2014, there were 22 cases of price re-runs.
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Mr. Michael Wong asked for the process in the event that two files were sent by the PSO, with the first file being the correct submission. Mr. Toh Seong Wah said that EMC will use the latest network status file which was transmitted by PSO. In this case, while the earlier file was correct, the later file with the wrong data was used by EMC in accordance with the market rules. When such an anomaly is found, EMC will check with PSO on which was the correct file, in order to determine whether a rerun was required.

Mr. Pak-Juan Koe noted that an incorrect file was sent by PSO to EMC after PSO had sent the correct file earlier. He requested that PSO explained the reasons for this.

Under Item 3 – HHI

Mr. Wong asked if the use of the HHI is still relevant in today's context.

Mr. Kay said that the reason for monitoring the index is to maintain a watching brief on market concentration arising from previously-examined proposals.

In reply to Mr. Wong’s query on whether the HHI is still used by anyone in the market given EMA does not use it for the vesting contract regime, Mr. Daniel Lee said that while HHI is not used for vesting, it is still used in assessing mergers.

Mr. Tan said that the HHI has not dropped below the threshold of 1800 over the last 2 years, which indicates that there is still some degree of market concentration. He suggested that the Panel continue to monitor the index, and if HHI trends down, EMC will seek the Panel’s views on whether previously-examined proposals should be reconsidered. Mr. Koe suggested that monitoring be continued until it is clear that the HHI has remained below 1800 in a sustained manner.

4.0 Summary of Outstanding Rule Changes

The RCP noted the summary of outstanding rule changes.

5.0 Rules Change Work Plan Status Update

Under Item 11 – Provision of Regulation by Storage Batteries

Mr. Lawrence Lee noted that since the Panel at its last meeting had already agreed to resume work on the issue and tasked EMC to table the rule change proposal, the expected commencement of the issue should be correspondingly updated.

Mr. Tan thanked Mr. Lee and said that EMC has taken note of this.
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Under Item 2 of EMA-Directed Rule Changes – Electricity Futures Market: Forward Sales Contract

Mr. Wong indicated that Tuas had feedback to the EMA that since MSSL may use the futures market to hedge non-contestable consumer loads, FSC debits and credits should not only be allocated to contestable consumers.

Mr. Wong noted that EMC has started work on the market rule modifications, and asked if there are changes to the allocation method whether it will affect the market rules. The Chairman replied that if the FSC is in the genco’s favour, EMC will collect from the MSSL to pay the genco, and vice versa. The MSSL will then allocate the debit/credit and make payments in the retail market system. EMC is not involved in the subsequent allocation of debit/credits to consumers. Thus a change in the allocation method will not affect the market rules.

6.0 Review of Compensation Guidelines
(Paper No. EMC/RCP/75/2014/CP55)

Ms. Lucia Loh presented a paper which reviews the existing compensation guidelines and proposes to revise them to:

a) Include a methodology to assess compensation requests in absence of energy offers, and
b) Clarify offer behaviour expected of directed gencos.

She informed the Panel that the paper focuses on PSO’s directions pertaining to energy, and subsequently presented EMC’s evaluation of the four proposals.

6.1 Ms. Loh informed that EMC do not support Proposal A, for directed generators to offer the instructed level of energy at low offer prices, with compensation on a different basis, given that such offer changes adversely impact market efficiency and sends out artificially low price signals. Instead, offer changes by directed generators are proposed to constitute a rule breach and be referred to the MSCP for investigation.

Mr. Kay queried whether there will be any exceptions to the proposed restriction on offer changes by directed gencos, similar to that currently allowed for offer changes within the 65-minute gate closure. The Chairman replied that EMC will consider this issue when drafting the proposed rule change.

6.2 Ms. Loh then presented the proposed cost-based compensation calculation methodology (under Proposal B), where compensation takes reference from generators’ long run marginal cost (LRMC).
Mr. Koe noted that the proposed cost-based framework catered for the provision of energy, and sought to understand how it would be applied to interruptible load providers.

The Chairman explained that, when these guidelines were formulated in 2006, the PSO confirmed that they will not ask participants to provide more reserves. This was why the current proposal had focused on energy, and he does not believe that the new proposal would affect non-generators.

Mr. Peacocke felt that the guidelines seem reasonable and provide a good starting point for gencos to negotiate with the PSO. Chairman added that the proposed cost components are meant to serve as a guide, and if gencos with STs and GTs can justify to the PSO that their LRMC are higher than that prescribed in the guidelines, they can always do so.

6.3 Mr. Peacocke asked if the current rules allow the PSO to direct gencos to change their offers. The Chairman replied that there is such a provision if the PSO deems gencos to be non-conforming.

Mr. Peacocke requested that EMC consider how the proposed restriction on offer changes by directed generators would work if the PSO were to direct gencos to change their offers.

Mr. Daniel Lee opined that PSO might want to direct gencos to change their offers to mirror the PSO’s instructed quantity, so that the MCE’s schedules resemble the actual dispatches.

Mr. Kay asked if the said provision relates to standing data, offer variations or both. The Chairman replied that the provision provides PSO with the general power to ask gencos to change both standing data and/or offer variations. However, the exercise of this provision has to be linked to non-performance and cannot be used without any constraints.

6.4 Mr. Koe suggested changing the wording in the Conclusion paragraph of the concept paper, from “certainty” to “clarity” instead, given that the guidelines are still subject to negotiation between applicants and the PSO and EMC.

6.5 The Chairman sought the Panel’s vote on the proposed revision to the existing compensation guidelines.

The Panel **unanimously** supported EMC’s recommendation as summarized in Table 7 of the paper, and tasked EMC to draft the relevant rule modification.
There being no other matters, the meeting ended at 11.50am.

Paul Poh  
Chairman  
Rules Change Panel

Minutes taken by:  
Eunice Koh  
Senior Executive - Corporate Secretariat