

**MINUTES OF THE RULES CHANGE PANEL  
34th PANEL MEETING  
HELD ON TUESDAY, 4 SEPTEMBER 2007 AT 10.10AM  
AT ENERGY MARKET CO. PTE LTD  
9 RAFFLES PLACE #22-01  
REPUBLIC PLAZA, SINGAPORE 048619**

Present: Dave Carlson Robin Langdale  
Tay Swee Lee Michael Lim  
Philip Tan Pei Lip Dr. Daniel Cheng  
Dallon Kay Henry Gan  
Dr. Kang Cheng Guan Low Boon Tong  
Dr. Goh Bee Hua

Absent with Francis Gomez Koh Kah Aik  
Apologies: Lim Ah Kuan

Observer: Lawrence Lee, SP Services

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

### **1.0 Notice of Meeting**

The Chairman called the meeting to order at 10.10am. The Notice and Agenda of the meeting were taken as read.

### **2.0 Confirmation of Minutes of the 33rd Rules Change Panel Meeting**

The Minutes of the 33rd Rules Change Panel meeting held on Tuesday, 3 July 2007 was tabled and taken as read.

There being no amendment, the Rules Change Panel unanimously accepted and approved the Minutes.

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**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 Discretion to Revise/Revoke Margin Call requirements in the presence of Manifest Error(s) (EMC/RCP/33/2007/267)**

The Panel was informed that

- a. EMC and MSSL are still working on the earlier cut-off time for the submission of meter readings to market players. Currently, the cut-off time is D+5 business days).
- b. EMC and MSSL are also working on a study to see if it is possible to provide market players more lead time by extending the deadline which applies to the original margin call issued by the EMC to a market participant or MSSL.

EMC will revert to the Panel accordingly.

Mr. Philip Tan informed EMC that the Panel had supported the prudential methodology proto-type be carried out and the issues concerning the prudential methodology be examined, in previous RCP meeting. EMC had relayed an inaccurate account of the matter by stating that the RCP had agreed to the prudential methodology to proceed on, in a SISF session.

EMC was requested to clarify with the industry on the information.

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**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 Matters Arising – Adequacy of the MP Suspension Provisions**

At the 31<sup>st</sup> RCP Meeting, the Panel requested EMC and SP Services to review the current market rules provisions for the MP default/suspension process.

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EMC and the MSSL met to study 3 issues:

Issue 1. Whether the MSSL is able to effect the transfer of customers from a suspended retailer within the timeframe.

The Panel was informed that under Market rules, EMC is required to notify the MSSL when it issues a default notice as early as the MP's payment date + 1 business day. The MSSL has confirmed that customer transfer can be completed in 1 business day.

Mr. Philip Tan pointed out that the timeline towards suspension showed that customers are transferred to MSSL only on Market Participant Payment Date (MPPD)+7 business days instead of MPPD+6 business days. Since the 30-day prudential requirement is based on suspension process of 6 business days, the current provision would be less than the sufficient requirement by 1 day's trade amount if withdrawals by customers on MPPD+7 business days are still for the account of the retailer

Mr. Paul Poh informed the Panel that withdrawals by a suspended retailer's customers on the MPPD+7 business day will be for the account of MSSL. EMC will, however, confirm with the MSSL if that is the case or whether it would still be for the account of the retailer.

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The Panel requested EMC to work out the various scenarios e.g. if there are 2 weekend days to see if provision of 10 calendar days for prudential to cater for the suspension period is adequate.

In reply to Mr. Robin Langdale's question, Mr. Poh informed him that customers' deposits with the defaulting retailer are covered under normal commercial contracts with the retailer and will not be transferred to the MSSL.

The Panel requested EMC to seek the EMA's comments on customers' deposits upon transfer to the MSSL's account. EMC was requested to draft a letter for the Panel's review before sending to EMA.

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Issue 2 – Whether the MSSL is able to fulfill its financial obligations (credit support and payment) arising from the transferred customers.

The Panel was informed that the MSSL's credit support requirement will start to include exposures of transferred customers only 6 business days after a retailer is suspended. With the default notification from EMC, the MSSL has up to 11 business days to increase its credit support. The MSSL has confirmed that they are able to increase its credit facility to accommodate the defaulting retailer's customers and there is sufficient time to raise the required credit support.

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Issue 3 – Whether the MSCP had adequate time to conduct a suspension hearing.

The Panel was informed that the MSCP has a maximum of 2 business days to conduct and conclude a suspension hearing. The MSCP responded that it had concerns on the tight deadline provided to complete a suspension hearing as well as the different types of decisions to be made. The MSCP also felt that they require EMC to provide appropriate information to allow them to make correct decisions.

EMC informed the Panel that allowing more time would mean that prudential requirements from the market would have to be increased.

The Panel requested EMC to revert on the outcome of their follow-up with the MSCP on their concerns.

### 7.0 Feedback on Rules Change Process

The Panel was informed that following the recent EMC PIMS Survey, EMC met representatives of stakeholders to understand reasons for their statement that they were “neither satisfied nor dissatisfied” with the EMC’s Rules Change Service.

These stakeholders requested the following changes and EMC sought the Panel’s endorsement of the changes.

- 7.1 For complex issues, time is required to analyse and investigate potential solutions before the issue is raised with the industry and stakeholders for their comments. EMC was asked to keep the industry informed of status/progress so that it does not appear that EMC is not dealing with the issue.

The Panel noted that EMC will provide a status update on work it has carried out on issues to the RCP and stakeholders.

- 7.2 Pre-meeting with small groups would be helpful to build dialogue and consensus on contentious issues before the RCP meetings as small group meetings allow players to review their positions.

The Panel noted that as part of the consultation process on an issue, EMC will invite the industry and stakeholders to a meeting where EMC will clarify any question relating to a proposal.

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- 7.3 At this stage of the market's development issues are more complex but less urgent. Thus, more consultation and discussion is preferred over speed of resolving an issue. While concept papers are good, EMC currently publishes them with recommendations. This might result in EMC concluding without having considered all relevant feedback from industry.

The Panel noted that for complex issues EMC will adopt a two stage consultation process.

- a) EMC will first publish a concept paper with various options and their pro and cons without recommendation or with preliminary recommendations for interested parties to provide views.
- b) Taking into account views received, EMC will then republish the concept paper with its recommendations for interested parties to comment on and the submit the paper to the RCP.

- 7.4 Papers are now voluminous and complex. It would be useful for RCP members to understand the issue better if presentation slides are provided before the meeting and that EMC conducts pre-briefing meetings.

The Panel noted that EMC is agreeable to this suggestion.

- 7.5 The current work plan timeframes for prioritization issues are 9 months, 10-15 months and 16-24 months. The work plan timeframes can be improved and since the work plan is re-prioritised each year, the work plan should not exceed 12 months.

A panel member asked for the rational for the current timeframes.

Mr. Poh informed the Panel that

- a) 9 months (high priority issues) - Complex issues are not likely to be dealt with within 6 months, hence the 9 months
- b) 10-15 months (medium priority issues) – To resolve an issue, EMC, Market Admin team typically needs to deal with the PSO, MSSL or the industry. They may not have the resources. With more issues in the 10-15 month bucket, EMC will have more flexibility to deal with issues where other counterparts are ready. However EMC targets to deal with half the issues in this bucket.
- c) 16-24 months (Low priority issues) – issues raised that have no immediate urgency.

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The Panel was informed that stakeholders have raised concerns that since issues are re-prioritized every year, an issue in the 16-24 month time frame may give an interested person a false sense of security that it is receiving attention.

However, a few panel members felt that having visibility into the 24 months is still essential for planning purpose. It was suggested that a time component be tagged to each of the issues so that one would know how long this issue has been raised.

**8.0 Progress Update on High Priority Issues in the RCP Work Plan**

Mr. Poa informed the Panel that Issue 1 – Simultaneous/Consecutive Tripping of Multiple GRFs and Issue 2 – Power Station with only one Remaining Generation Connection to the Grid were raised by the PSO on concern that insufficient reserve would be procured.

The PSO confirmed that the proposals are to address system security concern in the following scenarios:

- a) 2 or more logical units of a multi-unit facility trip simultaneously/consecutively
- b) 2 or more generation units connected through single transmission line
- c) 2 or more generation units trip simultaneously due to a single contingency event (e.g. interruption of gas supply)

The Panel was informed that allaying these concerns would inevitably mean that the current system reserve requirement would have to be substantially higher. The EMA requested that the impact on prices be evaluated based on likely affected GRFs identified by the PSO under the different scenarios.

EMC has developed a method to modify the MCE to set reserve requirement accordingly under each scenario and the PSO has agreed to the method.

EMC is also building an MCE prototype for simulation and analysis on prices. The allocation of reserve costs also needs to be studied in considering the proposal.

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**Issue 3 – Payment for Black Start Capability Ancillary Service**

The Panel was informed that EMC, EMA and the PSO are working to explore:

- Future requirements for black start capability service
- Who would be capable of providing or required to provide the black start services

The EMA clarified that the main objective is to ensure cost of the provision of black start capability service is minimized.

EMC approached PowerSeraya and PowerSeraya proposed 2 options:

1. to invest in new facilities
2. to continue using the existing Black Start gas turbine and invest in new equipment

PowerSeraya is working on the cost estimates. After EMC has all the necessary information from PowerSeraya, EMC will have further discussions with the EMA and PSO.

The Panel was informed that black start contract is a regulatory contract with a maximum duration of 1 year which allows generators to recover depreciation costs. An issue would arise when a genco needs to invest in new equipment to provide black start service. The concern is that the genco may not be able to recover its investment if the contract is not renewed. Hence, payment methodology for black start has to be reviewed in order to incentivise gencos to provide black start services that the market needs.

Mr. Kay opined that the one-year contract may not be appropriate.

**Issue 4 – Trial of the Proposed Prudential Methodology**

The Panel was informed that EMC has developed the prototype calculator. The Users Acceptance Test was also completed.

EMC will conduct a 6-month parallel run trial of the prototype calculator. After that, EMC will report on the trial results and make its recommendation to the Panel.

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### 9.0 **Equity Between Generators and Interruptible Loads in Reserve Provision** (Paper No. EMC/RCP/33/2007/CP15)

This paper examined the equity between Generation Registered Facilities (GRFs) and Load Registered Facilities (LRFs) in reserve provision.

A Market Participant expressed concern that payments to GRFs and LRFs were inequitable given that LRFs have been activated for reserve considerably less often than GRFs have.

The paper noted that as GRFs and LRFs are different types of facilities, their responses differ in several aspects and different operational requirements also apply to each. Thus, reserve provision by these two types of facility is not directly comparable.

The paper explored and evaluated the following 3 options to address the issue:

1. consider reserve from GRFs and LRFs as different services,
2. alter the reserve payment methodology and,
3. adjust the Primary and Secondary reserve activation frequencies of LRFs to bring about more balanced response between GRFs and LRFs in reserve provision,

Option 1 was not deemed appropriate because

- Reserve provided by LRFs and GRFs have the same effect on system frequency and hence, are not fundamentally different; and
- There was no reason to believe the existing 3 reserve classes inadequately provide for system security.

There did not seem to be a case for Option 2 also due to several conceptual as well as practical considerations. On the conceptual front, to maintain equity and fairness it was also necessary for the payment methodology to take into account other dimensions (besides probability of activation) in which Reserve provision differs between GRFs and LRFs in a contingency. The assignment of weight to each of these differing dimensions (to reflect their relative importance) is also likely to be arbitrary and indefensible.

On the practical front, there are a few difficulties associated with the implementation of Option 2, namely, defining the scope of contingency event, extracting frequency measurements, limits on determined activation frequency levels and changing of LRF activation settings.

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Overall, Option 3 seemed to be the most appropriate solution. Since it is undesirable for the market to have a subset of providers with virtually zero expectation of activation, EMC recommended that the LRF activation frequencies for Primary and Secondary reserve be raised. As the PSO is vested with responsibility of determining the performance requirements for ancillary services, EMC further suggested that PSO be requested to review if the current Primary and Secondary Reserve activation frequencies for LRFs can be raised. It was highlighted that this option is not meant to make GRFs and LRFs have the same probability of activation but to bring about a more balanced response from GRFs and LRFs, i.e. to give LRFs an increased expectation of future activation.

### RCP's Discussion

Mr. Robin Langdale queried as to why the market mechanism did not solve the problem. If LRFs indeed have an advantage over GRFs in terms of payment for reserve provision, then the market should see more reserve being provided by LRFs over the GRFs and consequently that would result in more LRFs being activated. Accordingly, the cost of activation for LRFs would go up to a point where the undue advantage to LRFs would diminish.

To that, Mr. Dallon Kay replied that certain measures such as the limits imposed on how much reserve LRFs can provide on a zonal as well as system-wide basis might restrict the participation of LRFs in terms of reserve provision.

Dr. Kang clarified that although limits have been imposed for IL, the market had not seen such limits being reached yet. In fact, there is still quite a way to go before the limits are hit and this could not explain the lack of participation of LRFs for reserve provision. Dr. Kang felt that the issue is not so straightforward and he did not see it as simply LRFs having undue advantage over GRFs. If that is the case, he too questioned why there is still a lack of participation of LRFs for reserve provision.

Mr. Philip Tan disagreed as he claimed that payments to GRFs and LRFs were inequitable given that

- historically, LRFs have been activated for reserve considerably less often than GRFs have; and
- typically, LRFs are assigned to Reserve Provider Group 'A' and could expect to stay that way since they are hardly activated, while the assignment of Reserve Provider Group for GRFs is subject to more stringent evaluation (given that GRFs' Reserve Provider Group are reviewed quarterly based on their actual performance which is readily available since they are activated frequently).

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Despite these differences, LRFs still get paid the same price as GRFs for a class of reserve. Further, the costs of reserve are borne only by the GRFs. To support his argument, Mr. Tan used the analogy of an option where he questioned why should an option which will not be exercised fetch the same or even higher price than one which will most certainly be exercised. This is simply illogical since an option which is very likely to be exercised should fetch a premium (in terms of price) over the one which is almost unlikely to be exercised.

Dr. Kang pointed that what Mr. Tan said is not entirely correct. He clarified that IL provider who intends to provide reserve must also pass the capability testing and verification by the PSO. Further, LRFs are also subject to compliance monitoring and any non-compliance would be reported to the MSCP. He further explained that there is an established procedure for assigning Reserve Provider Group to LRFs. For all newly registered load facility it is assigned Reserve Provider Group 'A' for all eligible class of reserves. However, for existing load facility, it will depend on the actual response (i.e. obtained based on MRA measurements or MW response measured) versus the expected response (i.e. scheduled quantity).

To that, Mr. Tay Swee Lee requested the PSO to provide figures how many existing LRFs have been 'downgraded' from Reserve Provider Group 'A'.

The Chairman commented that the problem of 'free-riding' exists in the reserve market for other jurisdictions as well. He saw that there are a few contributory factors to this problem and LRFs should not be singled out in particular. For instance, intertie contributes to arresting frequency dip and online generators could be providing reserve (due to their internal response to frequency dip) even though they have not been scheduled to provide reserve. Hence, as the paper had pointed out, the extent of the said inequity may not be as large as it seemed. He urged the members that if they consider it useful to look into this, and if the PSO is able to provide the information on each generation forced outage and the corresponding amount of reserve provided by each GRFs and intertie, then a study could be done to evaluate the extent of the said inequity.

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Mr Robin Langdale further added that if what Mr Tan said was true (i.e. LRFs have undue advantage in reserve provision compared to GRFs), then he still could not comprehend why the market did not see greater participation from the LRFs. And, if indeed, the LRFs have undue advantage as claimed, then they should offer 'cheaper' reserve into the market which will help to reduce the overall the reserve cost for the market. This would be beneficial for the whole market (especially for the generators who have to pay for the reserve cost).

To that, Mr. Tan explained that the dynamics of the reserve market are not straightforward. While GRFs pay for the reserve cost, they also get paid for providing reserve. He was still of the view that based on the existing reserve provision framework and payment methodology, LRFs could benefit more than the GRFs in the reserve payment. He strongly maintained that payments to GRFs and LRFs were inequitable given that LRFs rarely have been activated for reserve. LRFs have virtually close to zero probability of activation. He also pointed out that based on the statistics provided the number of IL activations in Singapore was very significantly lower than other countries. This could point to the fact that the activation frequency settings for LRFs in Singapore are far too conservative. He urged panel members to consider that the current activation frequency settings for LRFs do give rise to inequity between LRFs and GRFs for reserve provision, if LRFs receives reserve payment based on Reserve Provider Group 'A' rating.

Dr Kang clarified that though IL activations here are less often than in other countries, this cannot be due to the activation frequency as our activation frequency is already higher than theirs.

Dr Daniel Cheng commented that there were different views being presented. He was however not sure if indeed it was an inequity issue. Without a full understanding of the conditions that confine how IL providers behave, it would be too simplistic to conclude that ILFs have undue advantage over GRFs in terms of reserve provision.

To that, the Chairman again asked the members to consider if there was value in getting data from the PSO to study the extent to which GRFs have responded during a contingency event. This would help to establish if inequity really exists or not, and the extent of it.

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In response, Dr. Kang informed the Panel that how GRFs respond to a contingency event is a complex issue and to gather the necessary data would require substantial efforts and impose a significant burden on the resources of the PSO. He told the Panel that the reserve response to a contingency event has to be seen holistically from the entire power system point of view, and cannot be viewed in isolation by various individual entities. He further maintained that current activation frequency settings for LRFs are optimal from system security considerations. He also commented that whether the said inequity issue is indeed a problem or not is ultimately up to the RCP to decide. As far as the PSO is concerned, the said inequity issue does not point to a problem with the current activation frequency settings for LRFs and the PSO does not support increasing the activation frequency settings for LRFs.

Dr. Kang also added that, in any case, even if the IL activation frequency setting were to increase to 49.7Hz as suggested, that would yield only an additional 6 activations (based on 2006 data) and he believed that would still not address the said inequity issue.

Given the insufficient data by the PSO, the Chairman asked the Panel to consider supporting status quo.

Mr Philip Tan requested that EMC and PSO to explore if it was possible to progress Option 2 further as an alternative to solve the said inequity issue.

After much discussion the Panel supported that the status quo should be maintained unless strong justification can be provided to make any changes,

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  
Senior Executive - Corporate Secretariat