MINUTES OF THE RULES CHANGE PANEL
112TH MEETING
HELD ON TUESDAY, 12 NOVEMBER 2019 AT 10.00AM
AT ENERGY MARKET COMPANY PTE LTD
4 SHENTON WAY #03-01
SGX CENTRE 2, SINGAPORE 068807

Present
Toh Seong Wah (Chairman) Henry Gan
Soh Yap Choon Marcus Tan
Teo Chin Hau Tony Tan
Carol Tan Mark New
Matthew Yeo Ho Yin Shan
Dr. Toh Mun Heng Fong Yeng Keong
Tan Chian Khong

Absent with
Apologies:
Senthil Kumar Sean Chan

In Attendance:
Poa Tiong Siaw Wang Jing
Li Zhenhui Qin Weixiao
Joash Seng Clarissa Ooi

1. Notice of Meeting
The Chairman called the meeting to order at 10.00am. The Notice and Agenda of the meeting were taken as read.

1.1 Replacement of Representative of the Retail Electricity Licensee class of market participant
The RCP was informed that the EMC Board approved the appointment of Mr. Mark New from YTL PowerSeraya Pte. Limited to the RCP as a representative of the Retail Electricity Licensee class of market participant.

The Chairman welcomed Mr. Mark New to the 112th RCP Meeting.

2. Confirmation of Minutes of the 111th RCP Meeting
The Minutes of the 111th RCP meeting, held on 10 September 2019, were noted and the RCP approved the Minutes.

4. Monitoring List
The RCP noted the content of the Monitoring List.

5. Summary of Outstanding Rule Changes
The RCP noted the summary of outstanding rule changes.

6. Rules Change Work Plan Status Update
The RCP noted the update on the Rules Change Work Plan.
7. **Bank Readiness Check of Market Participant Registration**  
(Paper No. EMC/RCP/112/2019/361)

Ms. Qin Wei Xiao presented the paper to seek a change in the supporting document required for bank readiness check of a market participant applicant. She gave the background of the proposal and presented EMC’s analysis.

7.1 Ms. Qin went on to present a summary of the proposed modifications to the market manual. The proposed modifications to the market manual were published on 11 October 2019 for consultation and no comment was received.

7.2 Mr. Y K Fong asked if EMC will process the Third Party Authorisation (“TPA”) form upon receipt of the authorisation. Ms. Qin replied that EMC will have to check with the bank for confirmation before it will process the application.

7.3 Ms. Carol Tan noted that the proposal is to replace the TPA form with a written confirmation from the bank and asked if there are any instances where the TPA form was completed wrongly by a market participant. Ms. Qin replied that EMC has an established process with the clearing bank, OCBC, who is able to guide the market participant applicant well in completing the TPA form.

7.4 The RCP **unanimously supported** the proposed modifications to the market manual and recommended that the EMC Board adopt the proposed modifications and for the proposed modifications to come into effect one day after the date on which the approval of the Authority is published by EMC.

8. **Review of Timelines in relation to Provision of Credit Support**  
(Paper No. EMC/RCP/112/2019/CP78)

Ms. Qin presented the paper that reviewed the various timelines in relation to the provision of credit support under the market rules and proposed the following changes:

**Proposals**

1) In the event that an MP’s existing or remaining credit support is less than its CSV, if the MP has also been issued a margin call, then the MP shall both satisfy its margin call and meet its CSV requirement within 2 BDs.

2) Replacement credit support shall be provided at least 30 days or 35 days, for the MSSL and MPs (except the MSSL) respectively, prior to the expiry date of the existing credit support.

3) Non-renewal notification by the guarantor financial institution of an SBLC or BG shall be given to the EMC 33 days or 38
4) In the event that any part of the credit support provided by an MP ceases to be current or valid for any reason:

   a) if the MP (except the MSSL) so notifies the EMC more than 35 days prior to the expiry, it shall be required to provide replacement credit support 35 days prior to the expiry, otherwise the MP is required to provide replacement credit support immediately within 2 BDs; and

   b) if the MSSL so notifies the EMC more than 30 days prior to the expiry, it shall be required to provide replacement credit support 30 days prior to the expiry, otherwise the MSSL is required to provide replacement credit support immediately within 2 BDs.

8.1 Ms. Qin informed the RCP that the concept paper was published on 11 October 2019 for consultation. EMC has responded to a comment received from EMC’s Markets and Operations.

8.2 With respect to Proposal 1, Mr. Marcus Tan queried about the current number of days allowed for a market participant to top up its credit support. Ms. Qin replied that MP is allowed 5 business days to top up its credit support.

8.2.1 Mr. Marcus Tan questioned if it is technically possible for banks to furnish the credit support in 2 business days given that the Credit Support Value will also be revised from 30 to 38 days. Ms. Qin said that while EMC understood the situation, a delay in the market participant meeting its Credit Support Value requirement poses uncovered risk exposure for MPs.

8.2.2 Mr. Marcus Tan was concerned about the current market downturn and if MPs will be able to provide the credit support within 2 business days. He suggested allowing an MP to top up the pre-payment to satisfy the margin call within 2 business days and for the credit support top-up to remain at 5 business days instead. Ms. Qin replied that if the MP only provided pre-payment to rectify the margin call, the market will still be exposed to a shortfall between the pre-payment amount and the credit support shortfall amount for 3 business days, until the credit support is topped up. Mr. Poa Tiong Siaw added that there is therefore a residual risk if the MP is still given 5 business days to top up its credit support.

8.2.3 Mr. Marcus Tan said that the market is rather capital intensive and as MPs are going through a tough time, some may not hold a lot of cash. He suggested checking with the banks if they are able to provide credit support within 2 business days. Otherwise, it would be pointless to shorten the allowance from 5 business days to 2 business days. Ms. Qin said that MPs are expected to monitor their risk exposure actively. EMC has a step-wise approach to alert MPs of their positions in which
they receive notifications when their risk exposures cross 60%. Hence, MPs should have sufficient time to prepare additional credit support.

8.3 Mr. Marcus Tan asked if there is a period for a MP to remedy the default if it is unable to provide the credit support in time. Mr. Poa Tiong Siaw replied that it will be considered as a case of default and the default process will be triggered. Mr. Henry Gan added that such an MP will have up to 1 business day to remedy the default, failing which a suspension hearing will be held by the Market Surveillance and Compliance Panel (“MSCP”).

8.4 Dr. Toh Mun Heng noted that the proposed tightening of the timeline is to safeguard the market’s financial integrity and asked if the MPs will be able to meet the new timeline. Ms. Qin replied that proposals 2, 3 & 4 are considered administrative changes as they do not add significant banking cost. MPs are just required to adjust to new timelines.

8.5 Mr. Tan Chian Khong asked if there is any issue with respect to the proportionately higher number of short-validity banker’s guarantee compared to before. Ms. Qin replied that it is not an issue but a factor being considered when assessing if there is a need to impose a minimum period of validity.

8.6 Mr. Soh Yap Choon asked if the proposed changes will aggravate the current situation where MPs may struggle to meet the proposed new changes. Ms. Qin responded that the changes are being proposed to protect the market from the potential uncovered trading exposure. If an MP has been issued with a margin call, the market should be alerted to the situation.

8.7 Mr. Soh Yap Choon further queried if the costs of implementation will be spent on process or system change. While he noted that automation is always preferred, he asked if there is a real need to spend on the automation of processes. Mr. Henry Gan replied that currently the risk exposure notification has been automated in the system so that MPs are able to view their exposure forecast and credit support requirement when they log on to the system. The cost of implementation is not to automate the processes but rather to update the system with the new changes.

8.8 The Chairman recognised that the proposals will add financial stress especially to small MPs who rely on cash more than banker’s guarantee. However, it is also not an ideal situation for the market to be dealing with financially unsound MPs. For Proposal 1, he said that EMC will trigger a notice when an MP’s risk exposure hits 60% and that MP should take action then. The 2 BD requirement will only apply when the risk exposure hits 70%. Hence, it is an escalating and not a sudden development for the MP.
Minutes of 112th RCP Meeting – 12 November 2019

8.9 Mr. Soh Yap Choon asked if a market participant will still be able to participate in the market if they are in a default situation. Mr. Poa replied that in the event the market participant is unable to furnish the credit support by 2 business day, it will trigger a default process where a hearing will be held before the MSCP. This hearing process will take a few days so the defaulting MP has some time during this process to top up its credit support before the MSCP’s determination. Nevertheless, it is ultimately the MSCP’s decision whether to suspend a defaulting MP.

8.10 EMC recommended that the RCP supports the following four proposals:

1. In the event that an MP’s existing credit support is less than its CSV, if the MP has also been issued a margin call, then the MP shall both satisfy its margin call and meet its CSV requirement within 2 BDs.

2. Replacement credit support shall be provided at least 30 days (MSSL) or 35 days (MPs), prior to the expiry date of the existing credit support.

3. Non-renewal notification by the guarantor financial institution of an SBLC or BG shall be given to the EMC 33 days (MSSL) or 38 days (MPs), prior to the expiry date.

4. In the event that any part of the credit support provided by an MP/MSSL ceases to be valid for any reason:
   a. if the MP so notifies the EMC more than 35 days prior to the expiry, it shall provide replacement credit support 35 days prior to the expiry; otherwise the MP shall provide replacement credit support immediately within 2 BDs; and
   b. if the MSSL so notifies the EMC more than 30 days prior to the expiry, it shall provide replacement credit support 30 days prior to the expiry; otherwise the MSSL shall provide replacement credit support immediately within 2 BDs.

and task the EMC to draft the relevant rule modifications.

8.10.1 The RCP by majority vote supported Proposal 1 as stated above.

The following RCP members supported EMC’s recommendation:

- Mr. Henry Gan (Representative of EMC)
- Mr. Teo Chin Hau (Representative of Generation Licensee)
- Mr. Tony Tan (Representative of Generation Licensee)
- Ms. Carol Tan (Representative of Transmission Licensee)
- Mr. Mark New (Representative of Retail Electricity Licensee)
- Mr. Matthew Yeo (Representative of Wholesale Electricity Trader)
- Ms. Ho Yin Shan (Representative of the market support services licensee)
- Mr. YK Fong (Representative of Consumers of Electricity in Singapore)
### Minutes of 112th RCP Meeting – 12 November 2019

- Mr. Tan Chian Khong (Person experienced in Financial Matters in Singapore)

The following RCP member abstained from voting:
- Mr. Soh Yap Choon (Representative of the PSO)
- Mr. Marcus Tan (Representative of Generation Licensee)
- Dr. Toh Mun Heng (Representative of Consumers of Electricity in Singapore)

8.10.2 The RCP **unanimously supported** Proposals 2, 3 and 4 as stated above.

8.10.3 The RCP tasked EMC to draft the relevant rule modifications.

### 9. Review of Automatic Financial Penalty Scheme
(Paper No. EMC/RCP/112/2019/CP79)

Ms. Wang Jing presented the paper that revisited the objective of the Automatic Financial Penalty Scheme ("AFPS"), the considerations at its conception, and examined the following three issues raised by MPs:

#### Issue 1: Broaden Exemptions to the Penalty
EMC assessed new cases suggested for exemption by MPs and proposes that a) partial forced outage; b) de-loading and fail-to-sync due to forced outage; and c) generators that are on local control and responding positively to frequency deviation, be exempted from the penalty. Additionally, deviations under a) and b) should be factored into the Standing Probability of Failure (SPF) calculation.

#### Issue 2: Minimum Penalty Value
EMC is of the view that at the minimum value of $5000, generators may not be incentivised to minimise deviation from dispatch. EMC thus proposes a lower penalty floor with higher penalty rates based around a tiered penalty structure.

#### Issue 3: Treatment of Embedded Generator (EG) Must-run Quantity
Embedded Generators have requested that their must-run quantities should always be given priority for dispatch, regardless of whether such quantities are intended for self-consumption. EMC suggests that Embedded Generators can choose to offer such must-run quantities at the normal price floor of -$4500 in order to secure dispatch.

9.1 Issue 1: Broaden Exemptions to the Penalty

9.1.1 Mr. Soh Yap Choon commented that the current market rules clearly excludes failure or delay in synchronisation ("failure-to-sync") from the definition of forced outages and should continue to be so. Mr. Marcus Tan opined that it should be excluded as it is already exempted if fail-to-sync is part of start-up.
9.1.2 Mr. Matthew Yeo asked if it is considered to be a forced outage as long as it is counted towards the Generation Registered Facility’s (“GRF”) SPF calculation. Ms. Wang clarified that, instead of applying the AFPS, the proposal is to include instances of de-loading, fail-to-sync and partial forced outage into the SPF calculation. These cases should count towards the SPF calculation because generators truly did not perform as scheduled, meaning they had not been reliable during those periods.

9.1.3 Mr. Teo Chin Hau noted that the proposed amendment on SPF is similar to the SPF methodology stated in the EMA’s determination paper on Intermittency Pricing Mechanism (“IPM”) and that EMA has instructed EMC to draft the relevant rule modifications. He asked if the exemption cases should become effective only after the IPM changes have taken effect. The Chairman replied that if this proposed rule change is approved, the implementation or effective date can be set to be in line with the IPM changes.

9.1.4 Mr. Soh Yap Choon commented that it will be complex to implement the change to the SPF methodology if the denominator is to be based on schedule quantities, as this information is currently not used in the existing SPF calculation. Ms. Wang responded that EMC should be able to obtain the information from MCE schedules. In the event that the PSO overrides MCE schedules, such information would be required from the PSO. EMC would need to work with the PSO on the implementation details if the proposed SPF methodology is supported by the RCP.

9.2 Issue 2: Review of Minimum Penalty Value

9.2.1 Mr. Teo Chin Hau agreed that the minimum penalty value should be reviewed to allow a higher penalty to deter GRFs from deviating but this should be done on the assumption that the deviations are within the control of the gencos. He suggested postponing this review until there is an agreement on the proposed broadening of exemptions from the penalty. Mr. Poa Tiong Siaw responded that Issues 1 and 2 were considered independently of each other. Issue 2 is to address the “penalty indifference” to a generator between deviating from 10.1MW and 100MW. Different extents of deviation create different impacts on system security and that should be reflected in the penalty. Mr. Poa agreed that the list of exemptions is relevant and said that this proposal is a conceptual one and sought the RCP’s approval for EMC to work on a model to construct an effective penalty structure.

9.2.2 Mr. Soh Yap Choon said that the penalty was set to incentivise certain behaviours and for deterrence. He clarified that the outcome of the penalty is not only to deal with the impact on system security. The AFPS is mainly meant to address the issue of gencos deviating from dispatch schedules which have financial impacts on other gencos as their schedules will also be affected.

9.2.3 Mr. Marcus Tan asked if the minimum penalty value of $5,000 is based on the value of lost load price. Mr. Soh replied that it made reference to it.
Ms. Wang informed the RCP that the concept paper was published on 14 October 2019 for consultation. Comments were received from PSO, Senoko Energy, Keppel Merlimau Cogen, PacificLight Power, Senoko Waste-to-Energy and Keppel Seghers Waste-to-Energy, which were responded to by EMC.

Mr. Marcus Tan opined that although the proposal does not penalise MPs under the AFPS for de-loading and partial outage, MPs are still penalised/negatively affected by the proposed SPF calculation. That will disincentivise MPs from preventing a full forced outage to support the reliability of the power system. For partial forced outage and de-loading, without the change to the SPF, generators will still have the incentive to minimise the output reduction as much as possible; otherwise if it experiences full forced outage, their probability of failure would become higher.

The Chairman summarised that the probability of failure calculation is for the purpose of proportionately allocating reserve cost to the party that created the need for reserve. Whereas the AFPS is an explicit penalty scheme for deviating from dispatch instructions. Partial outages and de-loadings should not be double-penalised for the same fault, but it is a different matter when generators who caused a need for reserve are proportionately allocated that cost through its SPF value.

The RCP was invited to discuss EMC’s recommendation on the proposed additional cases for exemption under Issue 1 as listed in the table below.

<table>
<thead>
<tr>
<th>Proposed Additional Cases for Exemption</th>
<th>Recommend to exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial forced outage, and de-loading and fail-to-sync due to forced outage</td>
<td>Yes</td>
</tr>
<tr>
<td>GRFs on local control responding positively to system disturbance</td>
<td>Yes</td>
</tr>
<tr>
<td>Reduction in output when running on back-up fuel</td>
<td>No</td>
</tr>
<tr>
<td>WTE plants who are unable to accurately forecast output</td>
<td>No</td>
</tr>
<tr>
<td>Unable to submit offer due to EMC’s system is down</td>
<td>No</td>
</tr>
<tr>
<td>Environmental Issues beyond GRF’s control</td>
<td>No</td>
</tr>
</tbody>
</table>
9.4.1 In relation to the proposed exempted cases for partial forced outage, de-loading and fail-to-sync due to forced outage, Mr. Teo Chin Hau and Mr. Marcus Tan noted that EMA had directed a rule change on IPM which was to come into effect in 2020. They did not see a need to amend the SPF methodology as an interim measure. They would like the rule change to take effect only after the IPM changes are implemented.

9.4.2 Mr. Marcus Tan opined that partial forced outage is different because it is on the basis of unforeseeable technical issue. If gencos are to be penalised under the SPF for partial outage, the impact on MPs would be greater because the SPF has greater financial implications. He said that these factors should be considered carefully.

9.4.3 Mr. Soh Yap Choon said that most MPs’ concern is whether there would be double penalty. It is clear that MPs will either be penalised under the AFPS for not following the dispatch schedule for energy, or be required to pay the reserve costs required by the system as a causer. Under the current market rules, partial reduction is technically included under forced outages. If the unit is being designated as a partial reduction case, it will be classified as a forced outage and be exempted from penalty under the AFPS. Hence, it is fine to include partial outage and de-loading as exemptions in the proposed change.

He expressed concern about the inclusion of failure-to-sync as an exemption. He added that it is difficult to verify failure-to-sync as the PSO has no sight of it since the unit would not have been connected to the grid. As such, failure-to-sync should not be exempted from AFPS. If MPs feel that they should not be penalised under the AFPS, they can appeal to the MSCP under the current AFPS process.

With regards to AFPS appeal, Ms. Wang said that the current market rules allow an MP to appeal to the MSCP only if complying with dispatch would cause material or substantial damage to equipment or jeopardise the safety of personnel. Therefore, additional conditions may need to be drafted into the market rules. Mr. Soh replied that a failure-to-sync situation is usually related to equipment problem or safety concern for personnel. It would therefore qualify for appeal under the current grounds. He added that the PSO does not support the exemption of failure-to-sync from penalty under the AFPS, but agrees for partial reduction and de-loading to be included under forced outages. He is also agreeable that the implementation timeline should be aligned with the effective date of IPM changes.

9.4.4 The RCP also agreed to revisit the issue of whether partial forced outage, de-loading and failure-to-sync due to forced outage should be exempted under the AFPS, when there is more clarity on the IPM changes.

9.5 RCP made the following deliberations on the three issues presented.
9.5.1 The Chairman first called for a vote on the decision on the following proposed exempted cases under Issue 1:

<table>
<thead>
<tr>
<th>Additional Proposed Exempted Case</th>
<th>Recommend to exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. GRFs on local control responding positively to system disturbance</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Reduction in output when running on back-up fuel</td>
<td>No</td>
</tr>
<tr>
<td>3. WTE plants who are unable to accurately forecast output</td>
<td>No</td>
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<tr>
<td>4. Unable to submit offer due to EMC’s system is down</td>
<td>No</td>
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<tr>
<td>5. Environmental issues beyond GRF’s control</td>
<td>No</td>
</tr>
</tbody>
</table>

The RCP **unanimously supported** the recommendations in the table above.

9.5.2 The Chairman next called for a vote on the decision to task EMC to work on proposing a tiered penalty model.

9.5.2.1 Mr. Soh Yap Choon said that the current minimum penalty value was set by the EMA and suggested that EMC seeks EMA’s view before working on the tiered penalty model.

9.5.2.2 The RCP agreed with Mr. Soh’s suggestion and tasked EMC to seek EMA’s view before building the model.

9.5.3 The RCP **by majority vote supported** EMC’s recommendation that no changes be made to Issue 3: Review of the Treatment of Must-run Quantity.

The following RCP members supported EMC’s recommendation:

- Mr. Henry Gan (Representative of EMC)
- Mr. Soh Yap Choon (Representative of the PSO)
- Mr. Marcus Tan (Representative of Generation Licensee)
- Mr. Teo Chin Hau (Representative of Generation Licensee)
- Mr. Tony Tan (Representative of Generation Licensee)
- Ms. Carol Tan (Representative of Transmission Licensee)
- Mr. Mark New (Representative of Retail Electricity Licensee)
- Ms. Ho Yin Shan (Representative of the market support services licensees)
- Dr. Toh Mun Heng (Representative of Consumers of Electricity in Singapore)
- Mr. YK Fong (Representative of Consumers of Electricity in Singapore)
- Mr. Tan Chian Khong (Person experienced in Financial Matters in Singapore)
The following RCP member abstained from voting:
  • Mr. Matthew Yeo (Representative of Wholesale Electricity Trader)

10. **Appointment of Technical Working Group Chairperson**
(Paper No. EMC/RCP/112/2019/08)

Ms. Qin Wei Xiao informed the RCP that following key appointment changes at EMC, Ms. Veronica Rodriguez has resigned from her position as the Chairperson of the Technical Working Group (“TWG”). EMC has nominated Mr. Poa Tiong Siaw to replace Ms. Veronica Rodriguez for the vacancy of the Chairperson nominated by the EMC.

10.1 The RCP **unanimously supported** the appointment of Mr. Poa Tiong Siaw as Chairperson of TWG for the period from 13 November 2019 to 31 December 2020.

There being no other matters, the meeting ended at 12.50pm.

**Toh Seong Wah**
**Chairman**

Minutes taken by:
Angeline Tan
Executive, Legal and Corporate Secretariat