

**MINUTES OF THE RULES CHANGE PANEL
141st MEETING
HELD ON THURSDAY, 23 MAY 2024 AT 10.00AM
AT ENERGY MARKET CO. PTE LTD
4 SHENTON WAY #03-01
SGX CENTRE 2, SINGAPORE 068807**

Present: Toh Seong Wah (Chairman) Henry Gan
 Soh Yap Choon Koay Yi Jing
 Andrew Tan Fong Yeng Keong
 Sherman Toh Wong Yew Chung
 Kevin Fong Chee Wai Calvin Quek

Absent with Cheong Zhen Siong Dr Toh Mun Heng
Apologies: Matthijs Jan Guichelaar Dallon Kay
 Teo Chin Hau

In Attendance: Poa Tiong Siaw Wang Jing
(EMC) Lim Chern Yuen Vincent Wise
 Li Zhenhui Fernanda Tham

	Minutes of 141st RCP Meeting – 23 May 2024	Action
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.	
2.	Confirmation of Minutes of the 139th Rules Change Panel Meeting The Minutes of the 139 th Rules Change Panel (“RCP”) meeting, held on 13 March 2024, were approved by the RCP.	
3.	Update of Monitoring List, Summary of Outstanding Rules Change Submissions, and RCP Work Plan Status Update	
3.1	Ms Wang Jing presented the Update of Monitoring List, Rule Change Submission, and RCP Work Plan Status Update.	
3.2	Mr Wong Yew Chung queried if there were any actions that EMC takes arising from the information on the sources and amounts of Bankers Guarantees held by EMC, in particular when there are changes to a bank’s credit ratings. Mr Henry Gan clarified that the onus to ensure that their credit support (including any Bankers Guarantees) remains valid is on the market participants (“MP”).	
4.	Appointment of Technical Working Group 2024-2026	
4.1	Ms Fernanda Tham informed the Panel that the Technical Working Group (“TWG”) is an industry-resourced group appointed by the RCP to	

	<p>assist in examining technical market rule changes (typically relating to Market Clearing Engine (“MCE”) formulation). The TWG comprises eight members as follows:</p> <ul style="list-style-type: none"> • Four experts based on nominations from Market Participants (“MPs”) • One person nominated by the PSO • One person nominated by the Transmission Licensee • One MCE expert nominated by EMC • Chairperson nominated by EMC <p>It was noted that the original term of the current TWG ended on 31 December 2023. However, the RCP extended that term into 2024 until the TWG could complete its work on BESS modelling. This work was completed in March 2024.</p> <p>EMC then called for nominations from MPs to form the next TWG. Eight nominations for experts nominated by MPs were received.</p>	
4.2	<p>Ms Tham shared the nominations from the PSO, SPPG, and EMC which are as follows:</p> <p><u>One Person nominated by the PSO</u></p> <ul style="list-style-type: none"> • Mr Loh Poh Soon <p><u>One Person nominated by the Transmission Licensee</u></p> <ul style="list-style-type: none"> • Ms Tan Hui Xin <p><u>One MCE Expert nominated by EMC</u></p> <ul style="list-style-type: none"> • Ms Chen Li Qin <p><u>Chairperson nominated by EMC</u></p> <ul style="list-style-type: none"> • Mr Poa Tiong Siaw <p>Ms Tham shared that EMC considers that the nominees meet the TWG selection criteria and recommend that the RCP appoint them to the TWG.</p>	
4.3	<p>Ms Tham then shared the expert nominations received from MPs. Ms Tham shared how, in shortlisting nominees, EMC has placed greater weight on whether a nominee has a strong appreciation for issues surrounding dispatch and price discovery. Furthermore, given all nominees are extensively qualified in their respective domains, preference was given to nominees with domain experience that better relate to issues currently on the RCP Work Plan.</p> <p>Ms Tham shared EMC’s recommendation on the four experts based on nominations from MPs to be as such:</p> <p><u>Four experts based on nominations from MPs</u></p> <ul style="list-style-type: none"> • Mr Olivier Veteau • Mr Lim Heng Koon Jeremy • Mr Lai Kum Fai • Mr Lim Jun Jie 	

4.4	<p>Mr Fong Yeng Keong queried if knowledge or experience regarding trading fulfils EMC's primary criterion on a good appreciation of dispatch and pricing.</p> <p>Mr Poa Tiong Siaw's replied that EMC first looks for knowledge of market clearing, and experience in trading in the NEMS is an indicator of such knowledge. Mr Poa further stressed that EMC focuses on how the nominees can contribute to the work of the TWG, and not on the nominating organisation.</p>	
4.5	Mr Calvin Quek arrived at 10:16 hours.	
4.6	<p>Mr Wong Yew Chung queried if there is a requirement to fix the number of members for the TWG.</p> <p>Mr Poa responded that there is not. Given that the TWG is non-decision making working level body, it may be required to convene multiple times at short notice. Hence, a manageable group size, comprising of members that are familiar with the subject matter are preferred.</p> <p>Mr Wong further queried whether the proposed composition is similar to the outgoing TWG composition. Mr Poa answered in the affirmative.</p>	
4.7	Mr Soh Yap Choon queried on how EMC defines experience in their evaluation of the nominees. Mr Poa responded that EMC does not apply any hard rules but prioritises strong market clearing and electricity market domain knowledge.	
4.8	<p>Mr Soh Yap Choon made reference to the Dispute Resolution Counsellor, who may call upon experts from a pre-determined panel as required, and whether this can be replicated for the TWG with regards to all nominees received.</p> <p>Mr Poa responded that while it can be considered, it would be challenging to identify the expertise required.</p> <p>Chairman then shared that while EMC would like to balance between having nimbleness and broad expertise across TWG members, the number of members is not fixed and sought the Panel's views on possibly expanding the TWG.</p>	
4.9	<p>Mr Calvin Quek shared that given the TWG does not convene often, his view is to continue to have 4 expert members nominated by MPs, and to call for other experts as required.</p> <p>Mr Fong Yeng Keong noted that the flexibility to appoint experts on an ad-hoc basis is desirable.</p>	
4.10	<p>Chairman sought the Panel's view that the TWG's composition to remain as is, and the Panel's views on EMC's recommendations, namely:</p> <ol style="list-style-type: none"> that the term of appointment of the TWG be aligned with that of the RCP, until end-2026. the appointment of the following persons to the TWG from 2024 to 2026: 	

	<ul style="list-style-type: none"> • Mr Olivier Veteau (MP Representative) • Mr Lim Heng Koon Jeremy (MP Representative) • Mr Lai Kum Fai (MP Representative) • Mr Lim Jun Jie (MP Representative) • Mr Loh Poh Soon (Power System Operator Representative) • Ms Tan Hui Xin (Transmission Licensee Representative) • Ms Chen Li Qin (MCE Expert) • Mr Poa Tiong Siaw (as Chairperson) 	
4.11	The Panel unanimously supported EMC's recommendations.	
5.	RC387: Enhancement to Fallback Mechanisms for StartGeneration and PriorScheduledPurchase	
5.1	Mr Lim Chern Yuen presented the proposal on the enhancements to fallback mechanisms for StartGeneration and PriorScheduledPurchase, covering the analysis, rule modifications required, implementation effort estimate, and the consultation comments received from industry.	
5.2	<p>Mr Wong Yew Chung queried if there are any significant costs to dispatch with the current fallback mechanism for StartGeneration.</p> <p>Mr Poa Tiong Siaw responded that it will cause a loss to efficiency to the whole system dispatch. Mr Poa explained that the dispatch result is supposed to be the most efficient outcome, based on accurate inputs. However, with the current fallback mechanism, the StartGeneration parameter may sometimes default to zero, putting artificial constraints on the level of output for some generators, which reduces efficiency. Nevertheless, the actual cost to the system will only be calculated when such a situation occurs.</p>	
5.3	<p>Mr Wong further clarified on the impact of the current fallback mechanism to the generators and if EMC has received feedback from generators when such a situation happens.</p> <p>Mr Lim responded that when generators are scheduled lower amounts, traders are unlikely to realise that it is caused by StartGeneration values.</p>	
5.4	<p>Mr Calvin Quek queried if such a situation occurs because of an unavailable StartGeneration value in the Network Status File, or if it is due to entirely missing Network Status File.</p> <p>Mr Lim shared that the fallback mechanism has come into play for both scenarios.</p>	
5.5	<p>Mr Kevin Fong queried if the TWG has studied the proposed solution.</p> <p>Mr Lim responded that the TWG did not study the proposed solution.</p> <p>Mr Poa added that engaging the TWG was considered. However, as the fallback mechanism only changes the value of a parameter when the usual value is not available, and does not change the MCE formulation in any way, the TWG was not engaged.</p>	
5.6	Mr Kevin Fong queried if the proposed solution would inadvertently	

	<p>constrain generators from ramping down.</p> <p>Ms Wang Jing responded that the fallback mechanism is needed when the real time reading of a StartGeneration value is unavailable. In such cases, the MCE does not know what level the unit is running at in reality. Without the actual status of the unit, the best estimate that we can have is the latest prior forecast schedule. In theory, it is still possible that a unit's fall back value of Startgeneration deviate from its actual output, which may impact its ramping down process.</p> <p>Mr Toh Seong Wah added that in this case, in the absence of real time data, the best estimate is the last status as computed by the MCE, which is likely to be more accurate than a value of zero.</p> <p>Mr Sherman Toh also noted that this fallback mechanism is used only if there is missing Network Status File values. When new files are received every half hourly, it is expected the StartGeneration used in subsequent periods will be corrected.</p>	
5.7	<p>Mr Wong Yew Chung requested for more clarification on Senoko's consultation response, which stated that "if this situation were to apply to larger running units with low ramp rates, the potential market and financial impact would be significant".</p> <p>Mr Calvin Quek explained that if a large generator is constrained downwards due to StartGeneration value of zero during peak demand periods, it may lead to a sizable amount of energy not scheduled from this generator and cause a large increase in market clearing price, where the financial impact will significantly outweigh the costs of implementing the proposed system changes.</p>	
5.8	<p>Ms Koay Yi Jing asked why the recurring cost for annual operating expense increases with the proposed solution.</p> <p>Mr Lim responded that for this enhancement, changes to the existing code will be needed and there is additional effort in maintaining these codes in regression testing and in subsequent projects.</p> <p>Mr Poa added that the proposals streamline the process but require additional back-end resources.</p>	
5.9	<p>Mr Lim summarised EMC's recommendations to the RCP as follows:</p> <ol style="list-style-type: none"> support the EMC's proposed modifications; and recommend that the EMC Board adopts the proposed rule modifications. 	
5.10	The RCP unanimously supported EMC's recommendations above.	
6	CP96: Publication of TPC Information	
6.1	<p>Mr Vincent Wise presented CP96: Publication of TPC Information, noting that the initial proposal was for EMC to propose prices uncapped by the Temporary Price Cap (TPC), i.e., for</p> <ul style="list-style-type: none"> Primary reserves 	

	<ul style="list-style-type: none"> Contingency reserves Regulation Market Network Nodes (“nodal prices”) <p>The above four prices are collectively referred to as “Proposed Prices”.</p>	
6.2	<p>In addition to the Proposed Prices, Mr Wise shared that EMC also proposes to publish the following information:</p> <ul style="list-style-type: none"> Forecast RUSEP Moving Average Prices (MAP) TPC status (i.e., applied / not applied) 	
6.3	<p>Mr Wise shared EMC’s recommendation to publish all of the above prices, with likely benefits including improved transparency for better market efficiency, levelling the playing field for MPs associated with fewer nodes, as well as enhancing market surveillance and monitoring capabilities.</p>	
6.4	<p>For all of the above information, Mr Wise shared that EMC proposes to publish them for the Real-Time Schedule, Short-Term Schedule and Pre-Dispatch Schedule, but not for the Market Outlook Scenario (as the latter forecast is less accurate while incurring significantly more costs).</p>	
6.5	<p>Ms Koay Yi Jing commented that the TPC should primarily be used to cap energy prices, so for it to also cap regulation prices frequently is not ideal</p> <p>Mr Li Zhenhui noted that the TPC design is a regulatory decision. The setting of such TPC parameters is beyond the scope of this paper. However, EMC would feedback to EMA on RCP’s views on the frequent capping of the regulation prices under current TPC parameters.</p>	
6.6	<p>Mr Kevin Fong queried whether the bus price spreads shown are due to transmission congestion, or transmission losses.</p> <p>Mr Wise clarified that it may be due to both factors, but for the purpose of this paper’s analysis, it is more important to consider the frequency of bus price spreads existing (which have informational value), and not the magnitude of the price spreads.</p>	
6.7	<p>Mr Fong queried whether the biweekly TPC parameter updates can be published on EMC website as well, to make it more convenient for industry to retrieve all TPC related information.</p> <p>Mr Wise clarified that there are currently no plans to do so.</p>	
6.8	<p>Mr Wong Yew Chung queried on the rationale for not publishing the Proposed Prices previously.</p> <p>Mr Wise explained that when the TPC was first implemented, the timelines were tight, in response to ongoing price volatility. EMC and EMA are currently reviewing various aspects of the TPC in tandem.</p>	

6.9	<p>Mr Soh Yap Choon queried whether the vote on this paper is to implement the changes regardless of cost.</p> <p>Mr Wise clarified that the vote is to support the concept of enhancing the publication of TPC-related information, with EMC to follow up on the implementation approach. Cost estimates will be provided to the RCP in a follow up paper, for RCP's decision again on whether to proceed with the implementation.</p>	
6.10	<p>Mr Fong Yeng Keong noted that the implementation might incur significant costs, and queried whether such costs will be recovered from the market.</p> <p>Chairman responded that as with all other rule change implementation costs, it will be recovered from the market.</p>	
6.11	<p>Mr Soh queried that given the EMA is reviewing TPC parameters, whether EMC should seek EMA's agreement to this paper, or to wait for EMA's review to be completed.</p> <p>Mr Li responded that EMC has consulted with EMA, and EMA is in principle supportive of this paper's proposals, subject to EMC's costs estimates for the proposals.</p>	
6.12	<p>Mr Wise presented EMC's recommendations as follows:</p> <ul style="list-style-type: none"> a. Support the proposal to enhance the publication of TPC-related information; and b. Task EMC to assess the approach to implement the above-mentioned enhancements, and the associated costs and timeline. 	
6.13	The Panel unanimously supported EMC's recommendations above.	

There being no other matters, the meeting ended at 12.05 p.m..

Toh Seong Wah
Chairman

Minutes taken by:
Vincent Wise
Fernanda Tham
Lim Chern Yuen