

Notice of Market Rules Modification

Paper No.:	EMC/RCP/98/2017/345
Rule Reference:	Chap 5 section 9.1
Proposer:	EMC, Market Admin
Date Received by EMC:	18 July 2017
Category Allocated:	3
Status:	Approved by EMA
Effective Date:	14 November 2017

Sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules provide that the PSO may issue dispatch instructions only to registered facilities with valid offers/bids when the real-time dispatch schedule (RTDS) is not released by EMC or to prevent the system from entering into a high-risk or emergency operating state.

This paper reviews whether the dispatch instructions issued by PSO under Sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules should be limited to registered facilities with valid offers/bids. Arising from the review, the following solutions are proposed:

- (i) The System Operation Manual (SOM) currently already stipulates that in the absence of a RTDS, the PSO will use the latest available forecast schedule. Hence, in the absence of a RTDS (i.e. under section 9.1.2.2 of Chapter 5), it is proposed that the PSO shall issue dispatch instructions in accordance with the procedures specified in the SOM and the valid offer/bid requirements in the market rules can correspondingly be **removed**.
- (ii) To prevent the system from entering into a high risk or emergency operating state (i.e. under section 9.1.3 of Chapter 5), the PSO can be allowed to override dispatch instructions regardless of whether valid offers/bids are present if such re-dispatches occur infrequently. Otherwise, we propose that EMC and PSO investigate and work out an arrangement that will allow the PSO to re-dispatch in a manner which deals with the system security issues in real-time while minimising distortion to the market, and the cost of such an arrangement. Given that the PSO's inputs illustrate the low frequency of such incidents, we propose to **remove** the valid offer/bid requirements in section 9.1.3 of Chapter 5 of the market rules.

At its 95th meeting, the RCP by majority vote **supported** EMC's proposed amendments to sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules and tasked EMC to draft the relevant rule modifications.

At its 98th RCP meeting, the RCP by majority vote **supported** the proposed rule modifications and recommends that the EMC Board **adopt** the proposed rule modifications as set out in **Annex 2**.

Date considered by Rules Change Panel: 12 September 2017
Date considered by EMC Board: 17 October 2017
Date considered by Energy Market Authority: 10 November 2017

Proposed rule modification:

See attached paper.

Reasons for rejection/referral back to Rules Change Panel (if applicable):

RCP PAPER NO. : **EMC/RCP/98/2017/345**

SUBJECT : **REVIEW OF SECTIONS 9.1.2.2 AND 9.1.3 OF CHAPTER 5**

FOR : **DECISION**

PREPARED BY : **YAP YUN BEN
ECONOMIST**

REVIEWED BY : **PAUL POH LEE KONG
EVP, MARKET ADMINISTRATION**

DATE OF MEETING : **12 SEPTEMBER 2017**

Executive Summary

Sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules provide that the PSO may issue dispatch instructions only to registered facilities with valid offers/bids when the real-time dispatch schedule (RTDS) is not released by EMC or to prevent the system from entering into a high-risk or emergency operating state.

This paper reviews whether the dispatch instructions issued by PSO under Sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules should be limited to registered facilities with valid offers/bids. Arising from the review, the following solutions are proposed:

- (i) The System Operation Manual (SOM) currently already stipulates that in the absence of a RTDS, the PSO will use the latest available forecast schedule. Hence, in the absence of a RTDS (i.e. under section 9.1.2.2 of Chapter 5), it is proposed that the PSO shall issue dispatch instructions in accordance with the procedures specified in the SOM and the valid offer/bid requirements in the market rules can correspondingly be **removed**.
- (ii) To prevent the system from entering into a high risk or emergency operating state (i.e. under section 9.1.3 of Chapter 5), the PSO can be allowed to override dispatch instructions regardless of whether valid offers/bids are present if such re-dispatches occur infrequently. Otherwise, we propose that EMC and PSO investigate and work out an arrangement that will allow the PSO to re-dispatch in a manner which deals with the system security issues in real-time while minimising distortion to the market, and the cost of such an arrangement. Given that the PSO's inputs illustrate the low frequency of such

incidents, we propose to **remove** the valid offer/bid requirements in section 9.1.3 of Chapter 5 of the market rules.

At its 95th meeting, the RCP by majority vote **supported** EMC's proposed amendments to sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules and tasked EMC to draft the relevant rule modifications.

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1. INTRODUCTION

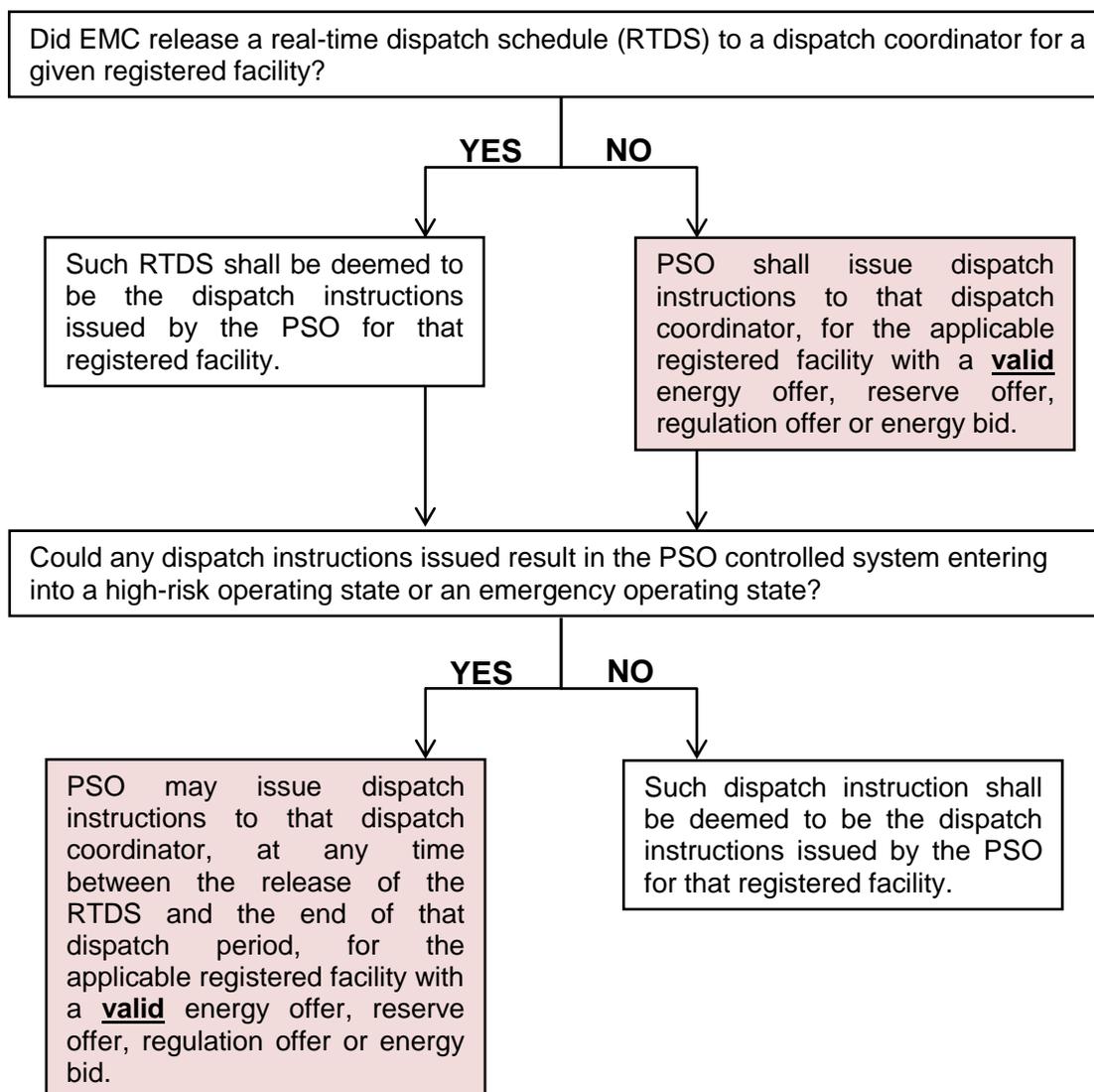
This paper reviews whether the PSO should issue dispatch instructions only to registered facilities with valid offers/bids under sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules.

2. BACKGROUND

2.1 Real-time Dispatch Process

Section 9.1 of Chapter 5 of the market rules spells out the process for the issuance of dispatch instructions. The process is summarised in Figure 1 below.

Figure 1: Issuance of Dispatch Instructions (For each dispatch period)



2.2 Validation of Offers and Bids

As illustrated in Figure 1 above, the PSO may issue dispatch instructions to registered facilities under two situations (hereafter collectively known as “**the system conditions**”) as follows:

- **System Condition 1:** when the RTDS is not released by EMC (Section 9.1.2.2 of Chapter 5); or
- **System Condition 2:** to prevent the system from entering into a high-risk or emergency operating state (Section 9.1.3 of Chapter 5).

However, as stipulated in sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules (which are also the sections being reviewed in this paper), these dispatch instructions may only be issued to registered facilities with valid offers/bids (hereafter known as “**the valid offer/bid requirements**”). Each offer or bid is only valid if it satisfies the conditions stipulated in Section 5.7 of Chapter 6 of the market rules, which are summarised in Table 1 below.

Table 1: Conditions for offers and bids to be accepted as valid

(A) Valid Offer
EMC shall accept the offer as valid if an offer: (i) complies with the Market Operations – Standing Offers, Offer Variations & Standing Capability Data (Chapter 6 Market Rules) market manual; and (ii) complies with the requirements stipulated in the relevant section in Chapter 6 of the market rules (i.e. section 5.2 – Form of Energy Offers, section 5.3 – Form of Reserve Offers or section 5.4 – Form of Regulation Offers)
(B) Valid Bid
EMC shall accept the bid as valid if a bid: (i) complies with the Market Operations – Standing Offers, Offer Variations & Standing Capability Data (Chapter 6 Market Rules) market manual; and (ii) complies with the requirements of the form of restricted energy bids (Section 5.2A of Chapter 6 of the market rules)

2.3 Proposal Received

A proposal received arising from the consultation for an EMA Directive¹ suggests that the PSO, in issuing dispatch instructions under sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules, should not be constrained to issuing dispatch instructions only to registered facilities with valid offers or bids given that the PSO has to maintain system security. In real-time operations, the PSO has to respond promptly and should not be encumbered by the need to check market participants’ (MPs’) offers prior to making dispatch decisions.

3. ANALYSIS

3.1 Rationale for Sections 9.1.2.2 and 9.1.3 of Chapter 5

¹ Rule Change No. 335: Rules Modification for EMA’s “Implementing Demand Response in the National Electricity Market of Singapore”

Scheduling and Dispatch in a Self-Commitment Market

The Singapore Wholesale Electricity Market (SWEM) is a self-commitment market, where generators manage their start-up and shut-down decisions using simple offers². Participants would need to reflect all relevant costs, facilities' availability and other information within their offers. Given that participants have the best information about their own facilities, coupled with energy market revenues being the only source of remuneration, the market should respect their offers as much as possible. This principle is enshrined in both the market clearing engine (MCE), which respects generators' technical parameters and offers³, and the use of the RTDS produced by the MCE for dispatch under most circumstances.

The intent is to instil confidence in the market that the market operator and/or system operator will respect their offers as the basis for scheduling and/or dispatch, and that correspondingly, whenever their facilities are scheduled, participants can expect that their revenues would at least be equal to their offer prices.

Allowances for exceptions

Notwithstanding the above principles, the PSO is allowed to issue or to override dispatch instructions to registered facilities with valid offers/bids under exceptional circumstances, i.e. the two system conditions mentioned in section 2.2 above. These were intended (i) to provide for the situation that issues could occur in the production of the RTDS (for system condition 1), and (ii) in recognition that the maintenance of system security and reliability is of paramount importance (for system condition 2). Nevertheless, section 9.1.4.1 of Chapter 5 of the market rules requires that dispatch instructions issued by the PSO under the above system conditions shall be consistent with the current operating status of the registered facilities.

In practice, though, the PSO does not have sight of facilities' offers/bids. In Rule Change Paper 325⁴, EMC sought the views of the PSO on whether they would find additional information (such as the remaining unscheduled quantities of each facility's offer for each dispatch period) useful. The PSO at that time indicated that such information is not useful given that generators are already required (under section 3.7.1.4 of Chapter 5 of the market rules) to update the PSO on the maximum availabilities of their respective facilities, to facilitate the PSO's dispatch under an emergency operating state.

3.2 Proposed Solutions

The proposed solution should satisfy the following two criteria as explained in Table 2 below:

² This is in contrast to markets which allow complex offers, allowing participants to also submit other cost information e.g. start-up costs, no-load costs and shutdown costs, for the market operator to take into account.

³ In practice, generators offers are "hard constraints", while generators' technical parameters are modelled as constraints that are expensive to violate (CVP of 20 × VoLL).

⁴ See Proposal D in section 4.4 of the Paper No. EMC/RCP/76/2014/325: Review of Compensation Guidelines.

Table 2: Criteria that proposed solution should satisfy

(A) Maintaining Market Confidence
<ul style="list-style-type: none"> • In a self-commitment market, the willingness and availability of each facility are reflected in its offers/bids. Hence, the offers/bids should be respected as much as possible. • Since MPs in the liberalised market are driven commercially, interventions by the market operator/PSO should be minimised • There should be provisions to allow facilities to seek compensation when the PSO's instructions have been adhered to.
(B) Maintaining System Security
<ul style="list-style-type: none"> • Maintaining system security and reliability remains of paramount importance.

In the following, we examine each system condition and propose solution(s) which satisfies the above criteria:

(A) System Condition 1: When the RTDS is not released by EMC

Currently, section 9.3 of Chapter 9 of the System Operation Manual (SOM) specifies the procedure⁵ to be used by the PSO when the RTDS is not released by the EMC. Based on the procedure, the PSO shall use the short-term schedule, pre-dispatch schedule or market outlook scenario in that order based on the availability of the schedules for the dispatch period in the absence of the RTDS.

The use of the latest available forecast schedule is appropriate and satisfies the criteria of maintaining market confidence since forecast schedules are produced using valid offers/bids submitted by MPs. Further, given that such procedures are currently already stipulated in the SOM, it implies that it is an arrangement that the PSO is comfortable with using in the absence of a RTDS.

Hence, we propose changing section 9.1.2.2 of Chapter 5 of the market rules such that in the absence of any RTDS, the PSO shall issue dispatch instructions in accordance with the procedures specified in the SOM. The valid offer/bid requirement is consequentially **proposed to be removed**.

(B) System Condition 2: To prevent the system from entering into high-risk or emergency operating state

Ideally, where dispatch instructions must be overridden, the PSO should do so in the least-cost manner so that the new dispatch instruction respects both the PSO's constraints and all MPs' offers/bids. For example, if the PSO determines that a particular generator, say Generator 1, should be dispatched at a level which is lower than the level scheduled in its RTDS, if there are various possible generators to call upon to make up for the difference, it should ask the generator with the next cheapest energy offer to run. This could be done by (i) setting an additional constraint on the maximum energy schedule level for Generator 1 and/or any other system constraints required, and (ii) re-running the MCE to obtain the revised dispatch schedule. The outcome of this arrangement will minimise the distortion to the market.

However, the PSO is currently unable to re-dispatch in the manner described above as there is no system or interface allowing them to do so. The costs of making system changes to allow the PSO to do (i) and (ii) above in real-time may be significant. Such costs may outweigh its associated benefits if the PSO only overrides dispatch instructions infrequently.

⁵ See **Annex 1** for the real-time dispatch workflow (extracted from Chapter 9 of the SOM).

If re-dispatch is an infrequent occurrence, it could be more cost-efficient to allow the PSO to issue dispatch instructions regardless of the valid offer/bid requirements given the importance of maintaining system security and the minimal distortion (from not re-dispatching in the least cost manner) that would be created.

Some MPs are concerned that their facilities may be physically unable to respond when the PSO dispatches them. However, such scenarios should not be a cause for concern as section 9.1.4.1 of Chapter 5 of the market rules requires that dispatch instructions issued by the PSO under this system condition have to respect the current operating status of the registered facility.

Subsequently, MPs of these facilities can also seek compensation for their contribution from the PSO via existing procedures⁶. Such an arrangement therefore meets the two criteria established in Table 2 as well.

Hence, we propose that:

- If the PSO needs to override dispatch instructions only infrequently, then the valid offer/bid requirements in section 9.1.3 of Chapter 5 of the market rules can be removed;
- Otherwise, EMC and PSO to investigate and work out an arrangement that will allow the PSO to re-dispatch in a manner which deals with the system security issues in real-time while minimising distortion to the market, and the costs of such an arrangement.

As part of the consultation (see section 4), the PSO has indicated that dispatch instructions were overridden only twice in the past two years. Hence, given the infrequency of such incidents, we **propose to remove** the valid offer/bid requirements in section 9.1.3 of Chapter 5 of the market rules.

4. CONSULTATION (CONCEPT PAPER)

The concept paper was published for industry consultation on 13 June 2017, and the following comments were received from Pacificlight Power, Tuas Power and Power System Operator.

Comments from Pacificlight Power

1. *PLP would request that the PSO provide the industry with details of the historic frequency that dispatch instructions have been overridden over the past two years. This would assist to justify whether the valid offer/bid requirements in Section 9.1.3 of Chapter 5 of the Market Rules should be removed or whether EMC and PSO should identify an arrangement that allows the PSO to re-dispatch in a manner which deals with the system security issues in real-time while minimising distortion to the market. In identifying possible arrangements, the costs of implementation would need to be considered.*
2. *PLP would also recommend further amending the Market Rules to include provisions on the following:*
 - (i) *details of the events where PSO can override dispatch instructions*
 - (ii) *compensation protocol and methodology (e.g. quantum of deviation from dispatch, etc.)*

⁶ As stipulated in section 9.1.7 of Chapter 5 of the market rules.

EMC's Response

1. We note PLP's comment which are in line with our recommendations.
2. We are of the view that it is not necessary to amend the market rules to include the suggested provisions because:
 - (i) The conditions under which the PSO can override dispatch instructions have already been stipulated in the market rules. Specifically, the definition of high-risk operating state and emergency operating state are defined in section 2 of Chapter 5 of the market rules. Further, the PSO has also indicated the scenarios whereby the PSO may need to override dispatch instructions in Table 9.2 of Chapter 9 of the SOM.
 - (ii) The procedures for compensation are already specified in the market rules. As for the compensation methodology, the RCP had previously decided in Rules Change Paper 325 not to prescribe the methodology formally in the market rules but instead to retain the compensation guidelines in a non-binding form to allow for flexibility to cover unanticipated situations. If a MP disagrees with the compensation quantum, the MP can resolve the issue via the dispute resolution process as provided for in section 3.3.1.5 of Chapter 3 of the market rules.

Comments from Tuas Power

1. *According to Section 5.1 of Chapter 6 of the market rules: Obligation To Have Offers, there is an obligation for each registered facility to have, at all times, valid standing offers or bids. It is not necessary to remove the valid offer/ bid requirements in sections 9.1.2.2 and 9.1.3 of the market rules.*
2. *Section 9.1.4.1 of Chapter 5 of the market rules has indicated that dispatch instructions issued by PSO have to be consistent with the current operating status of the registered capacity. Please clarify whether units that are on standby may be called upon by PSO in accordance with sections 9.1.2.2 and 9.1.3. If unoffered/unscheduled capacities of the registered facilities are being called upon by PSO in accordance with sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules, it is proposed to include in the market rules that the registered facilities should be obliged to comply with PSO's dispatch instructions during the contingency events, however, the provision of such unoffered/unscheduled capacities should be on a reasonable endeavor basis as there may be fuel/gas constraints, manpower issues to operate the unoffered/unscheduled capacities of the registered facilities, which may not be known to PSO.*
3. *Given that the generator's offer is breached when PSO issue or override dispatch instructions to the registered facility to maintain system security, it is proposed that PSO provides justifications for the interventions following the contingency event. This will also help to provide clarity on the compensation regime as per section 9.1.7 of Chapter 5 of the market rules.*

EMC's Response

1. We agree that there is already an obligation for each registered facility to have valid standing offers or bids at all times. However, our review examines whether the PSO should consider offers (specifically, offer quantity and offer price) when overriding dispatch instructions. Otherwise, this review will not be necessary.
2. We are of the view that units on standby may be called upon by the PSO in accordance with sections 9.1.2.2 and 9.1.3, but the PSO would have to consider the current operating status of the unit i.e. whether the unit is capable of meeting the PSO's dispatch instruction.

Our view is that the suggestion for compliance to be on a reasonable endeavour basis is not required. The PSO can report MPs which are non-compliant with dispatch instructions to the MSCP. Such MP can then make representations to the MSCP showing why its unit was unable to comply. Notably, section 7.2.8.5 of Chapter 3 of the market rules stipulates that the MSCP shall not direct a MP to pay financial penalty unless the MSCP is satisfied that the breach could have been avoided with the exercise of due diligence. Hence, if a MP faces fuel/gas constraints and manpower issues despite having exercised due diligence, it can demonstrate such reasons to the MSCP.

3. When the PSO overrides dispatch instructions, they may or may not breach generators' offers. The provisions for compensation in the market rules do not depend on the reason for the PSO's intervention - as long as the PSO overrides the dispatch instruction for its unit, an MP can seek compensation from the PSO.

Comments from PSO

In the past 2 years, there were 2 incidents which PSO had to override the dispatch schedule. In all instances, we would use the latest available short-term dispatch schedule and priority ranking, based on the gross efficiency data, to take the least-cost approach in order to issue new dispatch instructions.

EMC's Response

We note the PSO's inputs. Given that the frequency of incidents is low, we recommend that the valid offer/bid requirements in section 9.1.3 of Chapter 5 of the market rules be removed.

5. CONCLUSION

This paper reviews whether the PSO should issue dispatch instructions only to registered facilities with valid offers/bids under sections 9.1.2.2 and 9.1.3 of Chapter 5 of the market rules. Firstly, for cases where a RTDS was not released by EMC, the existing provisions in the SOM already specifies that the PSO shall use the latest forecast schedule available. EMC thus proposes replacing the valid offer/bid requirements with the requirement to use the procedures specified in the SOM. Secondly, for cases intended to prevent the system from entering into a high risk or emergency operating state, EMC proposes removing the valid offer/bid requirements given the infrequency of re-dispatch in the past, and the potentially high cost to implement a system that will allow the PSO to re-dispatch in a manner which minimises market distortion.

6. DECISION AT THE 95TH RCP MEETING

At its 95th meeting, the RCP by majority vote **supported** EMC's proposals to:

- (a) **replace** the valid offer/bid requirements in section 9.1.2.2 of Chapter 5 of the market rules with the requirement to use the procedures specified in the SOM;
- (b) **remove** the valid offer/bid requirements in section 9.1.3 of Chapter 5 of the market rules;

and tasked EMC to draft the relevant rule modifications.

The details of the voting outcomes are as follows:

Those who voted in support of the proposal:

1. Mr. Henry Gan Representative of the EMC
2. Mr. Soh Yap Choon Representative of the PSO
3. Mr. Marcus Tan Representative of Generation Licensee
4. Ms. Grace Chiam Representative of Generation Licensee
5. Mr. Luke Peacocke Representative of Retail Electricity Licensee
6. Mr. Daniel Lee Representative of Retail Electricity Licensee
7. Mr. Sean Chan Representative of Retail Electricity Licensee
8. Mr. Lim Han Kwang Representative of the Transmission Licensee

Those who voted not to support the proposal:

1. Mr. Dallan Kay Representative of Wholesale Electricity Trader

Those who abstained from voting:

1. Ms. Priscilla Chua Representative of Generation Licensee

7. PROPOSED RULE MODIFICATIONS

EMC has drafted the proposed rule modifications, as set out in **Annex 2** of this paper, to give effect to the RCP's decision. Table 3 below summarises the proposed rule modifications.

Table 3: Summary of Proposed Rule Modifications

Chapter/Section	Proposed Changes	Reason for Change
Chapter 5 Section 9.1.2.2	Removed "with a valid energy offer, reserve offer, regulation offer or energy bid" and added that the dispatch instruction issued shall be in accordance with the SOM and the new section 9.1.2A.	To replace the valid offer/bid requirements with the requirement to issue dispatch instructions in accordance with the new section 9.1.2A of Chapter 5 and the procedures specified in the SOM.
Chapter 5 Section 9.1.2A (new section)	Added a new section to state that when the PSO issues dispatch instruction pursuant to section 9.1.2.2, the PSO should use the latest available forecast schedule, where feasible.	To specify that the PSO should use the latest available forecast schedule as the dispatch instructions issued by the PSO in the absence of a RTDS (where feasible).
Chapter 5 Section 9.1.3	Replaced "co-ordinator" with "coordinator". Removed "with a valid energy offer, reserve offer, regulation offer or energy bid".	To correct for typographical error. To remove the valid offer/bid requirements.

8. LEGAL SIGN-OFF

The text of the proposed rule modifications has been vetted by EMC's external legal counsel, whose opinion is that the modifications reflect the intent of the rule modification proposal as expressed in the third column of the table in **Annex 2**.

9. INDUSTRY CONSULTATION (PROPOSED RULE MODIFICATIONS)

The proposed rule modifications, as set out in **Annex 2**, were published for consultation on 4 August 2017, and comments were received from ExxonMobil Asia Pacific and PSO.

Comments from ExxonMobil Asia Pacific

Embedded generator facilities have more constraints associated with generator operations as they are highly integrated within plant operations and site reliability needs to be preserved. Furthermore, embedded generators' capacities, when compared to dedicated generators, are not significant. Thus, it is proposed to exempt embedded generator facilities from the scope of this market rule change.

EMC's Response

This proposed rule modifications do not fundamentally change the compliance obligations of a generation registered facility (GRF). The market rules requires all GRFs to comply with the PSO's dispatch instructions unless such compliance would endanger the safety of any person, substantially damage equipment or violate any applicable law, as provided in section 9.6.3 of Chapter 5 of the market rules. Hence, we do not agree with the proposal to exempt embedded generators from this proposed rule modifications.

Comments from PSO

The addition of 9.1.2A is quite redundant as it is already stated in the SOM 9.3, that we will take reference to the latest available STS, PDS and MOS.

EMC's Response

During discussions at the 95th RCP meeting, a Panel member suggested that the principle of using offers (and thus forecast schedules produced using offers when issuing dispatch instructions in the absence of a RTDS) should be retained/reflected in the market rules. Section 9.1.2A of Chapter 5 was thus drafted with the suggestion in mind, to provide greater clarity on the basis for dispatch instructions issued under section 9.1.2.2. In any case, the proposed section 9.1.2A is not inconsistent with the SOM.

10. DECISION AT THE 98TH RCP MEETING

At its 98th meeting, the RCP by majority vote **supported** the proposed rule modifications as set out in **Annex 2**.

The details of the voting outcomes are as follows:

Those who voted in support of the proposed rule modifications:

- | | |
|-----------------------|---|
| 1. Mr. Henry Gan | Representative of the EMC |
| 2. Mr. Soh Yap Choon | Representative of the PSO |
| 3. Mr. Marcus Tan | Representative of Generation Licensee |
| 4. Ms. Grace Chiam | Representative of Generation Licensee |
| 5. Ms. Priscilla Chua | Representative of Generation Licensee |
| 6. Mr. Luke Peacocke | Representative of Retail Electricity Licensee |

- | | |
|----------------------|---|
| 7. Mr. Daniel Lee | Representative of Retail Electricity Licensee |
| 8. Mr. Sean Chan | Representative of Retail Electricity Licensee |
| 9. Mr. Lim Han Kwang | Representative of the Transmission Licensee |
| 10. Mr. Phillip Tan | Person experienced in financial matters in Singapore |
| 11. Dr. Toh Mun Heng | Representative of Consumers of Electricity in Singapore |

Those who abstained from voting:

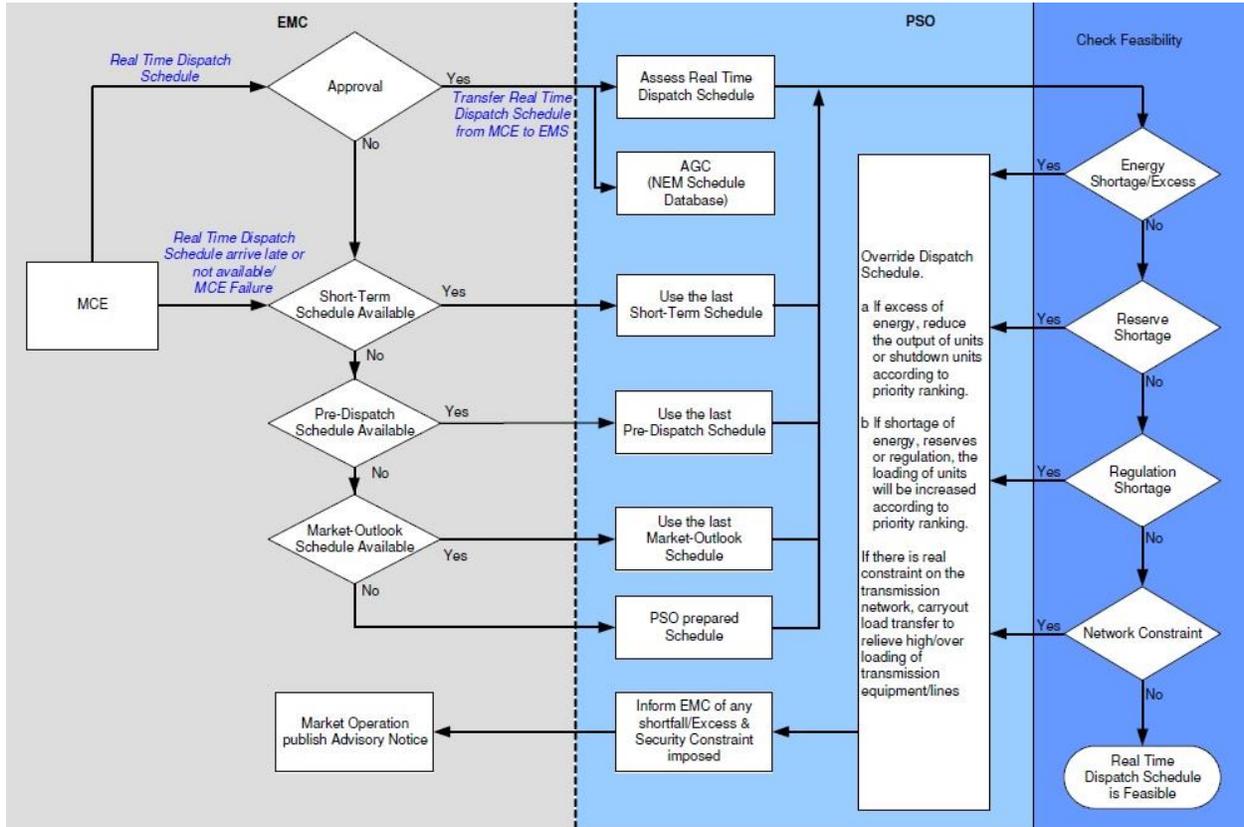
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| 1. Mr. Lawrence Lee | Representative of Market Support Services Licensee |
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11. RECOMMENDATIONS

The RCP by majority vote recommends that the EMC Board:

- (a) **adopt** the proposed rule modifications as set out in **Annex 2**;
- (b) **seek** the EMA's approval of the proposed rule modifications as set out in **Annex 2**; and
- (c) **recommend** that the proposed rule modifications as set out in **Annex 2** come into force **1 business day** after the date on which the approval of the Authority is published by the EMC.

Annex 1: Real-Time Dispatch Workflow



Annex 2: Proposed Rule Modifications

Existing Market Rules (1 July 2017)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Reasons for rule change
Chapter 5	Chapter 5	
<p>9.1 <u>ISSUING DISPATCH INSTRUCTIONS</u></p> <p>9.1.2 The issuance of <i>dispatch instructions</i> shall be as follows:</p> <p>...</p> <p>9.1.2.2 where a <i>real-time dispatch schedule</i> is not released by the <i>EMC</i> pursuant to section 9.2.3 of Chapter 6 to a <i>dispatch coordinator</i> for a given <i>registered facility</i> and <i>dispatch period</i>, the <i>PSO</i> shall issue <i>dispatch instructions</i> to that <i>dispatch coordinator</i> for that <i>dispatch period</i>, instructing the applicable <i>registered facility</i> with a valid <i>energy offer</i>, <i>reserve offer</i>, <i>regulation offer</i> or <i>energy bid</i> to provide, to limit the provision of, to withdraw or to limit the withdrawal of the relevant <i>physical service</i> at or to the level specified in the <i>dispatch instruction</i>; and</p> <p>...</p> <p>[New section]</p>	<p>9.1 <u>ISSUING DISPATCH INSTRUCTIONS</u></p> <p>9.1.2 The issuance of <i>dispatch instructions</i> shall be as follows:</p> <p>...</p> <p>9.1.2.2 where a <i>real-time dispatch schedule</i> is not released by the <i>EMC</i> pursuant to section 9.2.3 of Chapter 6 to a <i>dispatch coordinator</i> for a given <i>registered facility</i> and <i>dispatch period</i>, the <i>PSO</i> shall issue <i>dispatch instructions</i> to that <i>dispatch coordinator</i> for that <i>dispatch period</i> <u>in accordance with the procedures described in the system operation manual and section 9.1.2A</u>, instructing the applicable <i>registered facility</i> with a valid <i>energy offer</i>, <i>reserve offer</i>, <i>regulation offer</i> or <i>energy bid</i> to provide, to limit the provision of, to withdraw or to limit the withdrawal of the relevant <i>physical service</i> at or to the level specified in the <i>dispatch instruction</i>; and</p> <p>...</p> <p><u>9.1.2A When issuing the <i>dispatch instructions</i> for a <i>dispatch period</i> referred to in section 9.1.2.2, the <i>PSO</i> shall, to</u></p>	<p>To replace the valid offer/bid requirements with the requirement to issue dispatch instructions in accordance with the new Section 9.1.2A of Chapter 5 of the Market Rules and the procedures specified in the SOM.</p> <p>To specify that when the PSO</p>

Existing Market Rules (1 July 2017)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Reasons for rule change
<p>9.1.3 Where the <i>PSO</i> considers that any <i>dispatch instructions</i> issued in accordance with section 9.1.2 could result in the <i>PSO controlled system</i> entering into a <i>high-risk operating state</i> or an <i>emergency operating state</i>, the <i>PSO</i> may issue <i>dispatch instructions</i> to a <i>dispatch co-ordinator</i> for a <i>dispatch period</i> at any time between the release of the <i>real-time dispatch schedule</i> to the <i>dispatch co-ordinator</i> for that <i>dispatch period</i> and the end of that <i>dispatch period</i>, instructing any <i>registered facility</i> with a valid</p>	<p><u>the extent which the <i>PSO</i> determines that it is feasible to do so, use the latest available <i>short-term schedule, pre-dispatch schedule scenario or market outlook scenario</i> released by the <i>EMC</i> pursuant to section 7.7 of Chapter 6 as the <i>dispatch instructions</i> for that <i>dispatch period</i>.</u></p> <p>9.1.3 Where the <i>PSO</i> considers that any <i>dispatch instructions</i> issued in accordance with section 9.1.2 could result in the <i>PSO controlled system</i> entering into a <i>high-risk operating state</i> or an <i>emergency operating state</i>, the <i>PSO</i> may issue <i>dispatch instructions</i> to a <i>dispatch co-ordinator <u>coordinator</u></i> for a <i>dispatch period</i> at any time between the release of the <i>real-time dispatch schedule</i> to the <i>dispatch co-ordinator <u>coordinator</u></i> for that <i>dispatch period</i> and the end of that <i>dispatch period</i>, instructing any</p>	<p>issues the dispatch instructions pursuant to section 9.1.2.2, the <i>PSO</i> should use the latest available forecast schedule (i.e. the short-term schedule, pre-dispatch schedule scenario or market outlook scenario) (where feasible).</p> <p>To correct for typographical errors.</p>

Existing Market Rules (1 July 2017)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Reasons for rule change
<p><i>energy offer, reserve offer, regulation offer or energy bid to provide, to limit the provision of, to withdraw or to limit the withdrawal of the relevant physical service at or to the level specified in the dispatch instruction. Any such dispatch instructions shall override any prior dispatch instructions.</i></p>	<p><i>registered facility with a valid energy offer, reserve offer, regulation offer or energy bid to provide, to limit the provision of, to withdraw or to limit the withdrawal of the relevant physical service at or to the level specified in the dispatch instruction. Any such dispatch instructions shall override any prior dispatch instructions.</i></p>	<p>To remove the valid offer/bid requirements.</p>