

Notice of Market Rules Modification

Paper No.: EMC/RCP/40/2008/275
Rule reference: Chapter 2 Section 5.1.4 App 2B Section B.1.1 and Chapter 8
Proposer: Yeo Lai Hin, PSO
Date received by EMC: 13 March 2008
Category allocated: 1
Status: Approved by EMA
Effective Date: 05 January 2009

Summary of proposed rule modification:

The proposal seeks to clarify that any generating unit resides at a generating station which has an aggregate capacity of 10 MW or more must be registered as generation registered facility and subject to the PSO's dispatch.

The Application Form for Generation Facility Registration (i.e. Market Administration Market Manual (Part 2)) is amended to clarify that the 10MW threshold applies to the aggregate nameplate rating at generating station. EMC has also proposed some changes to update this form because it has not been updated since market start.

Date considered by Rules Change Panel: 4 November 2008
Date considered by EMC Board: 27 November 2008
Date considered by Energy Market Authority: 19 December 2008

Proposed rule modification:

See attached paper.

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

PAPER NO. : **EMC/BD/06/2008/05(b)**

RCP PAPER NO. : **EMC/RCP/40/2008/275**

SUBJECT : **REGISTRATION OF GENERATION FACILITIES AT THE
SAME GENERATING STATION**

FOR : **DECISION**

PREPARED BY : **WANG JING
ANALYST**

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

DATE OF MEETING : **27 NOVEMBER 2008**

Executive Summary

This rule modification proposal amends the rules to clarify the circumstances under which generation facilities must be registered for central dispatch. It clarifies that any generating unit at a generating station with an aggregate capacity of 10 MW or more must be subject to the PSO's dispatch.

Amendments to the Market Administration Market Manual are also proposed for consistency with the proposed new rules.

The RCP recommend that the EMC Board **adopt** this proposal.

1. Introduction

This paper assesses the PSO's rule modification proposal to clarify the requirements for registration of generation settlement facilities (GSF) and generation registered facilities (GRF).

2. Background

In the SWEM, two types of generation facilities participate in the market: generation settlement facilities (GSF) and generation registered facilities (GRF).

GSFs are not required to be subject to the PSO's dispatch and can generate according to their needs. Under the existing rules, a generation facility with a name-plate rating of less than 10 MW can be registered as a GSF.

A generation facility is defined as one or more generating units at the same physical location. For the purpose of determining if a generation facility is required to be subject to dispatch, the generation facility's nameplate rating should be the aggregate nameplate rating of all the generating units at the same physical location. If the aggregate rating of the generating units at the same physical location is 10 MW or more, then such generating units shall be subject to the PSO's dispatch.

However, the current rules did not adequately articulate the intent to aggregate the nameplate ratings of all the generating units at the same physical location, which forms a generation facility, when determining if that generation facility should be subject to dispatch. Because every generating unit has a nameplate rating, some market participants have inadvertently misunderstood that the 10MW threshold applied to each generating unit's individual nameplate rating.

3. Analysis

3.1 Problem with Multiple GSFs located together

GSFs are not scheduled by the Market Clearing Engine (MCE) and hence do not follow any dispatch instruction. The operation of several GSFs together at the same physical location could have a significant impact on the power system.

For example, if these GSFs stop generating and start to import from the transmission grid for any reason, the MCE would not factor that in and schedule additional generation accordingly. This would deplete the reserves provided by other on-line generation facilities in the power system, resulting in insufficient reserve in the power system to cater for the tripping of the largest on-line generation facility. The result would be an adverse impact on the security of the power system, possibly leading to partial blackout in Singapore if the largest generating facility trips.

3.2 Clarification Required

To avoid the problem above, the Market Rules intended to set a 10MW threshold on the capacity of any GSF at a given location. This is to ensure that the level of generation from GSFs in the system stays within an acceptable level that would not pose a threat to system security.

When the 10MW threshold (which is intended to encompass the aggregate of the nameplate ratings of all generating units at the same physical location) is interpreted as the threshold level for the individual nameplate rating of each generating units, it would mean that multiple generating units (rated below 10MW individually, but more than 10MW in aggregate) at the same physical location can be registered as multiple GSFs. This exceeds the intended

tolerance level. Thus, it is necessary to make it explicit in the Market Rules that multiple generating units at the same physical location, which together have an aggregate nameplate rating of 10MW or more, must be subject to the PSO's dispatch and thus registered as one or more GRFs.

4 Proposed Rule Changes

4.1 Proposed Changes to the Market Rules

The following types of changes are required to the Market Rules:

- a) Explicitly state in the facility registration rules that the 10 MW threshold for capacity refer to the aggregate nameplate rating of all generating units at the same physical location;
- b) Replace the term "physical location" with "generating station" in the definition of generation facility. The term "physical location" is ambiguous. We propose using "generating station" instead, which is commonly understood by market participants;
- c) Make clear that Appendix 2B (technical requirements for registration of facilities) will apply to the registration of GRFs as well as GSFs; and
- d) Make associated changes to the Application Form for Generation Facility Registration

A summary of the proposed rule changes is provided in Table 1 below:

Table 1 Summary of the Rule Changes Required

	Market Rules	Rule Changes	Reason for change
1	Section 5.1.4, Chapter 2	To make clear that generation facilities <u>at a generating station which has aggregate nameplate rating of 10 MW or more</u> , must be registered as one or more GRFs in accordance with Appendix 2B.	To make it clear that the 10MW threshold applies to the aggregate nameplate rating of all generation facilities at the same generating station.
2	Section 5.1.5 and 5.1.6, Chapter 2	To provide that generation facilities <u>at a generating station which has aggregate nameplate rating of 1MW of more but less than 10 MW</u> , <ul style="list-style-type: none"> • all those generation facilities are required to be registered as one or more GSFs; and • any generation facilities intended to be subject to dispatch by the PSO shall be registered as one or more GRFs in accordance with Appendix 2B.	
3	Section B.1.1, Appendix 2B, Chapter 2	To make clear that generating units at the same generating station may also be combined for registration as	To make clear that Section B.1 also applies to registration of generation settlement

	Market Rules	Rule Changes	Reason for change
		a GSF.	facilities. For consistency with existing section B1.2 and the section 5.1.4 and 5.1.6 of Chapter 2. To make clear that Section B.1 applies in respect of all applications for registration of GRFs and GSFs.
4	Section B.1.3, Appendix 2B, Chapter 2	To add the requirement that the PSO will also consider whether simultaneous or consecutive forced outage of multiple generating units in a multi-unit facility is reasonably likely to occur.	To be in line with the conditions described in section C6.9 of the Transmission Code in the case of generation registered facilities which are combined cycle plants.
5	Section B.1.4, Appendix 2B, Chapter 2	To add that it shall be the market participant's responsibility to demonstrate that the facility meets all relevant criteria, factors and requirements under the Appendix and section 5 of Chapter 2.	To make it explicit that it shall be market participant's responsibility to demonstrate its facility meets all relevant criteria, factors and requirements.
6	Section 1.1.113, Chapter 8	In the definition of generation facility , the word physical location is replaced with generating station .	The meaning of the same physical location is ambiguous. Changed to generating station for clarity.
7	Section 1.1.159	To amend the definition of multi-unit facility so that it also includes GSFs (in addition to GRFs that are combined-cycle plants).	To make clear that multi-unit facility could be either a GSF or a GRF that comprises more than one generating units.

Other parts of the rules are required to be updated for the consistency of the Market Rules. These associated rule changes are summarized in Table 2 below.

Table 2 Summary of the Associated Rule Changes

	Market Rules	Rule Changes	Reason for change
8	Section 1.2.1.2, Chapter 2	Update of references.	To take into account the new sections 5.1.4 to 5.1.6.
		To add that commissioning generation facility is also allowed to convey physical service into the transmission system.	For consistency with section 5.1.1.2 of Chapter 2.
9	Chapter 3.1.4,	To add that for market participant	To make clear that an

	Market Rules	Rule Changes	Reason for change
	Chapter 2	registration, the applicant should also meet all the requirements as prescribed in the applicable market manual.	applicant must comply with any other requirements of the applicable manual before it may be registered as a market participant.
10	Section 5.1.1.1, Chapter 2	Add the reference to section 1.2.	For consistency with section 1.2.1.1.
11	Section 5.1.1.2, Chapter 2	To add that commissioning generation facility is also allowed to convey physical service into the transmission system	For consistency with the reference to %section 5.3+in this section.
12	Section 5.1.3, Chapter 2	To add reference to section 5.1.4, 5.1.5 and 5.1.6.	To make clear that section 5.1.3 is subject to sections 5.1.4 to 5.1.6.

Please refer to Annex 1 for full details of the proposed rule changes described in Table 1 and Table 2.

4.2 Proposed Changes to the Application Form for Generation Facility Registration

The Application Form for Generation Facility Registration (i.e. Market Administration Market Manual (Part 2)) is amended to clarify that the 10MW threshold applies to the aggregate nameplate rating at generating station. EMC has also proposed some changes to update this form because it has not been updated since market start. The proposed changes to the form are summarized in Table 3 below. Please refer to Annex 2 for the proposed new form and Annex 3 for the details of the changes made to the current form.

Table 3 Proposed Changes to the Application Form for Generation Facility Registration

	Application Form	Changes to the Market Manual	Reason for change
	Explanatory note		
13	Introduction	To amend the registration requirements for GRFs and GSFs.	To make these requirements consistent with the new section 5.1.4 to 5.1.6 of Chapter 2.
14	Summary of registration requirements for a GRF/GSF	Updated with the requirements set out in section 5.2 and 5.4 of chapter 2 of the market rules.	For consistency with section 5.2 and 5.4 of Chapter 2 of the Market Rules.
		To add the requirement that the facility must meet the metering requirements.	To make it explicit that the metering requirement must be met before the facility can be registered. This is in line with the requirement under section 5.2.6.4/5.4.4.2 of Chapter 2 of the Market Rules.

	Application Form	Changes to the Market Manual	Reason for change
15	Applicant Details	New section.	For EMC to know the identity of the applicant.
	Regulatory Details (Section B)		
16	Point 1	Rephrased for applicants to indicate their authorised activities relating to electricity.	For consistency with the language used in the Electricity Act.
	Facility Details (Section C)		
17	Point 11	To add fields to indicate what physical services is intended to be provided from the facility	As required under section 5.2.4.1c of Chapter 2.
18	Point 12, Section F	To add fields for the details related to: <ul style="list-style-type: none"> a) EMA's authorisation of an embedded generator for Price Neutralisation; b) EMA's approval of an embedded generator to be classified as a non-injecting generation facility. 	For EMC to know a facility's status as embedded generator for Price Neutralisation or a non-injecting generation facility for net treatment on non-reserve charges.
19	Appendix B	To add a sample certificate and undertaking in the appendix.	For applicants use/reference.
20	Various parts		Updated for <ul style="list-style-type: none"> • consistency with the language used in the Market Rules or other governing documents; • Improved clarity on the registration processes.

5. Conclusion

We conclude that:

- a) the proposed rule changes would make the registration requirements for GSF clearer to market participants; and

- b) the proposed modifications to the market manual would make the application form more relevant and consistent with the registration rules.

5. Impact on market systems

There is no change required to market systems.

6. Implementation process

This rule modification proposal can take effect immediately after EMA's approval at no extra cost.

7. Consultation

We have published the rule modification proposal on the EMC website for comments. No comments have been received for consideration.

8. Legal sign off

Text of the rule modification in Annex 1 and the proposed revised form in Annex 2 has been vetted by EMC's external legal counsel whose opinion is that the modification reflects the intent of the rule modification proposal as expressed in the analysis section of this paper.

9. Recommendations

The RCP unanimously recommends that the EMC Board

- a. **adopt** the rule modification proposal to amend Chapter 2, and Appendix 2B of Chapter 2 and Chapter 8 as set out in the Annex 1;
- b. **adopt** the proposed revised Market Administration Market Manual (Part 2) as set out in the Annex 2;
- c. **seek** EMA's approval of the modification proposals as set out in Annex 1 and Annex 2; and
- d. **recommend** that the modification proposals as set out in Annex 1 and Annex 2 come into force one business day after the date on which the approval of the Authority is published by the EMC.

ANNEX 1 Proposed Modification to the Market Rules

Existing rules (Release: 1 April 2008)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Remarks
<u>CHAPTER 2</u>	<u>CHAPTER 2</u>	
<p>1.2 MARKET PARTICIPANT REGISTRATION AND MARKET SUPPORT SERVICES LICENSEE AUTHORISATION</p> <p>1.2.1 No person, other than a <i>market support services licensee</i>, shall participate in the <i>wholesale electricity markets</i> or cause or permit any <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> unless:</p> <p>1.2.1.1 that person has been registered by the <i>EMC</i> as a <i>market participant</i> pursuant to this section 1.2 and section 3; and</p> <p>1.2.1.2 subject to sections 5.1.2 to 5.1.4, the facility to or from which the <i>physical service</i> is to be so conveyed has been registered by the <i>EMC</i> as a <i>registered facility</i> or as a <i>generation settlement facility</i> pursuant to section 5.</p>	<p>1.2 MARKET PARTICIPANT REGISTRATION AND MARKET SUPPORT SERVICES LICENSEE AUTHORISATION</p> <p>1.2.1 No person, other than a <i>market support services licensee</i>, shall participate in the <i>wholesale electricity markets</i> or cause or permit any <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> unless:</p> <p>1.2.1.1 that person has been registered by the <i>EMC</i> as a <i>market participant</i> pursuant to this section 1.2 and section 3; and</p> <p>1.2.1.2 subject to sections 5.1.2 to 5.1.4 <u>5.1.6</u>, the facility to or from which the <i>physical service</i> is to be so conveyed has been registered by the <i>EMC</i> as a <i>registered facility</i>, <u>as a commissioning generation facility</u>, or as a <i>generation settlement facility</i> pursuant to section 5 <u>5.2, 5.3 or 5.4</u> as the case may be.</p>	<p>To take into account the new sections 5.1.5 & 5.1.6 inserted in Chapter 2.</p> <p>For consistency with section 5.1.1.2 of Chapter 2 (as amended below).</p>

Existing rules (Release: 1 April 2008)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Remarks
<p>3 APPLICATION FOR REGISTRATION OR AUTHORISATION</p> <p>3.1.4 Within twenty <i>business days</i> of receiving (i) a <i>participation applicant's participant registration application</i>; or (ii) further information or clarification requested under section 3.1.2, whichever is later (or within such longer period as it may agree with the <i>participation applicant</i>), if the <i>EMC</i>:</p> <p>3.1.4.1 is satisfied that the <i>participation applicant</i> meets all the requirements in section 1.2.2, it shall register the <i>participation applicant</i> as a <i>market participant</i> on such terms and conditions (that comply with section 3.1.7) as it determines appropriate; or</p> <p>3.1.4.2 is not satisfied that the <i>participant applicant</i> meets all the requirements in section 1.2.2, it shall deny the <i>participation applicant</i> registration as a <i>market participant</i>, except that, if the <i>EMC</i> is satisfied that a <i>participation applicant</i> meets the requirements in sections 1.2.2.2 and 1.2.2.3, it may conditionally register the <i>participation applicant</i> as a <i>market participant</i>,</p>	<p>3 APPLICATION FOR REGISTRATION OR AUTHORISATION</p> <p>3.1.4 Within twenty <i>business days</i> of receiving (i) a <i>participation applicant's participant registration application</i>; or (ii) further information or clarification requested under section 3.1.2, whichever is later (or within such longer period as it may agree with the <i>participation applicant</i>), if the <i>EMC</i>:</p> <p>3.1.4.1 is satisfied that the <i>participation applicant</i> meets all the requirements in section 1.2.2 <u>and all the requirements as prescribed in the applicable market manual</u>, it shall register the <i>participation applicant</i> as a <i>market participant</i> on such terms and conditions (that comply with section 3.1.7) as it determines appropriate; or</p> <p>3.1.4.2 is not satisfied that the <i>participant applicant</i> meets all the requirements in section 1.2.2 <u>and all the requirements as prescribed in the applicable market manual</u>, it shall deny the <i>participation applicant</i> registration as a <i>market participant</i>, except that, if the <i>EMC</i> is satisfied that a <i>participation applicant</i> meets the requirements in sections 1.2.2.2 and 1.2.2.3, it may conditionally</p>	<p>To make clear that an applicant must comply with any other requirements of the applicable market manuals before it may be registered as MP.</p> <p>To make clear that an applicant must also comply with any other requirements of the applicable market manuals before it may be registered as MP.</p>

Existing rules (Release: 1 April 2008)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Remarks
<p>and notify the <i>participation applicant</i> of the same. If the <i>EMC</i> denies the <i>participation applicant</i> registration, the notice shall identify the reason for the denial. If the <i>EMC</i> conditionally registers the <i>participation applicant</i> as a <i>market participant</i>, the notice shall state a date by which the <i>participation applicant</i> shall satisfy all the remaining unsatisfied requirements in section 1.2.2 of Chapter 2.</p>	<p>register the <i>participation applicant</i> as a <i>market participant</i>,</p> <p>and notify the <i>participation applicant</i> of the same. If the <i>EMC</i> denies the <i>participation applicant</i> registration, the notice shall identify the reason for the denial. If the <i>EMC</i> conditionally registers the <i>participation applicant</i> as a <i>market participant</i>, the notice shall state a date by which the <i>participation applicant</i> shall satisfy all the remaining unsatisfied requirements in section 1.2.2 of Chapter 2.</p>	
<p>5.1 REQUIREMENT FOR REGISTRATION</p> <p>5.1.1 No person, other than a <i>market support services licensee</i>, shall participate in the <i>real-time markets</i> or cause or permit any <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> unless:</p> <p>5.1.1.1 that person is registered as a <i>market participant</i> pursuant to section 3; and</p> <p>5.1.1.2 subject to sections 5.1.2 to 5.1.4, the facility to or from which the <i>physical service</i> is to be so conveyed has been registered by the <i>EMC</i> as a <i>registered facility</i> or a <i>generation settlement facility</i> pursuant to section 5.2, 5.3 or</p>	<p>5.1 REQUIREMENT FOR REGISTRATION</p> <p>5.1.1 No person, other than a <i>market support services licensee</i>, shall participate in the <i>real-time markets</i> or cause or permit any <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> unless:</p> <p>5.1.1.1 that person is registered as a <i>market participant</i> pursuant to <u>section 1.2 and</u> section 3; and</p> <p>5.1.1.2 subject to sections 5.1.2 to 5.1.4 <u>5.1.6</u>, the facility to or from which the <i>physical service</i> is to be so conveyed has been registered by the <i>EMC</i> as a <i>registered facility</i>, <u>as a <i>commissioning generation</i></u></p>	<p>For consistency with section 1.2.1.1.</p> <p>To include the reference to the new sections 5.1.5 & 5.1.6 of Chapter 2.</p> <p>For consistency with the</p>

Existing rules (Release: 1 April 2008)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Remarks
5.4.	<u>facility</u> , or <u>as a generation settlement facility</u> pursuant to section 5.2, 5.3 or 5.4 <u>as the case may be</u> .	reference to "section 5.3" in this section.
5.1.3 A person that intends to participate in the <i>real-time markets</i> or cause or permit a <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> from a <i>generation facility</i> having a name-plate rating of less than 1 MW shall not be required to register that <i>generation facility</i> as a <i>registered facility</i> or a <i>generation settlement facility</i> . No such <i>generation facility</i> shall be subject to <i>dispatch</i> by the <i>PSO</i> .	5.1.3 <u>Unless otherwise provided in section 5.1.4, 5.1.5 or 5.1.6, a</u> A person that intends to participate in the <i>real-time markets</i> or cause or permit a <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> from a <i>generation facility</i> having a name-plate rating of less than 1 MW shall not be required to register that <i>generation facility</i> as a <i>registered facility</i> or a <i>generation settlement facility</i> . No such <i>generation facility</i> shall be subject to <i>dispatch</i> by the <i>PSO</i> .	To make clear that this section 5.1.3 is subject to sections 5.1.4, 5.1.5 & 5.1.6.
5.1.4 A person that intends to participate in the <i>real-time markets</i> or cause or permit a <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> from a <i>generation facility</i> having a name-plate rating of 1 MW or more but less than 10 MW shall be required to register that <i>generation facility</i> as a <i>generation settlement facility</i> unless the person intends the <i>generation facility</i> to be subject to <i>dispatch</i> by the <i>PSO</i> , in which case the <i>market participant</i> shall be required to register that <i>generation facility</i> as a <i>generation registered facility</i> .	5.1.4 A person that intends to participate in the <i>real-time markets</i> or cause or permit a <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> from <u>any generation facility, which together with all other generation facilities (if any) at the same generating station have an aggregate name-plate rating of 10 MW or more, shall register all the generation facilities of such generating station as one or more generation registered facilities in accordance with Appendix 2B.</u> a generation facility having a name-plate rating of 1 MW or more but less than 10 MW shall be required to	To make clear that MPs with generation facilities at a generating station which have aggregate name-plate rating of 10MW or more, are required to register those facilities as one or more generation registered facilities in accordance with Appendix 2B.

Existing rules (Release: 1 April 2008)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Remarks
	<p>register that <i>generation facility</i> as a <i>generation settlement facility</i> unless the person intends the <i>generation facility</i> to be subject to <i>dispatch</i> by the <i>PSO</i>, in which case the <i>market participant</i> shall be required to register that <i>generation facility</i> as a <i>generation registered facility</i>.</p>	
	<p><u>5.1.5 Unless otherwise provided in section 5.1.6, a person that intends to participate in the <i>real-time markets</i> or cause or permit a <i>physical service</i> to be conveyed into, through or out of the <i>transmission system</i> from any <i>generation facility</i>, which together with all other <i>generation facilities</i> (if any) at the same <i>generating station</i> have an aggregate name-plate rating of 1 MW or more but less than 10 MW, shall register all the <i>generation facilities</i> of such <i>generating station</i> as one or more <i>generation settlement facilities</i> in accordance with Appendix 2B.</u></p>	<p>To provide that MPs with generation facilities at a generating station which have an aggregate name-plate rating of 1 MW or more but less than 10 MW, are required to register those facilities as one or more generation settlement facilities in accordance with Appendix 2B.</p>
	<p><u>5.1.6 Notwithstanding section 5.1.5, if a person intends that any one or more of the <i>generation facilities</i> at a <i>generating station</i> described in section 5.1.5 be subject to <i>dispatch</i> by the <i>PSO</i>, that person shall register such <i>generation facilities</i> as one or more <i>generation registered facilities</i> in accordance with Appendix 2B.</u></p>	<p>To provide that generation facilities intended to be subject to dispatch by the PSO must be registered as generation registered facilities, and may not be registered as generation settlement facilities under section 5.1.5.</p>

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<u>APPENDIX 2B</u>	<u>APPENDIX 2B</u>	
<p>APPENDIX B – Technical Requirements for Registration of Facilities</p> <p>B.1 <u>MULTI-UNIT FACILITIES</u></p> <p>B.1.1 When registering one or more <i>generation facilities</i> in accordance with section 5.2 of this Chapter, a <i>market participant</i> may seek to register several <i>generation units</i> as combined together in a single <i>generation registered facility</i> or may seek to register several <i>generation units</i> as several separate <i>generation registered facilities</i>. This section B.1 sets out the criteria which the <i>EMC</i> and <i>PSO</i> shall use, in addition to the other requirements set out in section 5.2 of this Chapter, to decide whether to allow the aggregations or disaggregations of <i>generation units</i> into the proposed <i>generation registered facilities</i> or <i>generation settlement facilities</i>.</p>	<p>APPENDIX B – Technical Requirements for Registration of Facilities</p> <p>B.1 <u>SINGLE-UNIT & MULTI-UNIT FACILITIES</u></p> <p>B.1.1 When registering one or more<u>For the purpose of registration of generation facilities</u> in accordance with section 5.2 <u>5</u> of this Chapter, a <i>market participant</i> may seek to register several generation units as combined together in a single generation registered facility or may seek to register several generation units as several separate generation registered facilities either <u>register all the generating unit(s) of a given generating station as a single combined generation registered facility or generation settlement facility (as the case may be), or register such generating units of that given generating station, singly and/or jointly in any combination, as two or more separate generation registered facilities or generation settlement facilities (as the case may be).</u> This section B.1 sets out the criteria which the <i>EMC</i> and <u>the</u> <i>PSO</i> shall use, in addition to the other requirements set out in section 5.2 <u>5</u> of this Chapter, to decide whether to allow the</p>	<p>For consistency with section 5.1.4 to 5.1.6 and to make clear that other relevant provisions of section 5 of Chapter 2 (and not just section 5.2) may also be applicable.</p> <p>To include references to generation settlement facilities as well.</p> <p>To make clear that generating units, which may be combined for registration as a generation registered facility or a generation settlement facility, must be located at the same generating station.</p>

Existing rules (Release: 1 April 2008)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Remarks
	<p>aggregations or disaggregations of <i>generation units</i> into the proposed <u>the registration of such <i>generation facilities</i> as one or more <i>generation registered facilities</i> and/or <i>generation settlement facilities</i> (as the case may be).</u></p>	<p>To make clear that Section B.1 applies in respect of all applications for registration of generation registered facilities and generation settlement facilities.</p>
<p>B.1.2 In making the decision described in B.1.1 regarding <i>generation registered facilities</i> or <i>generation settlement facilities</i>, the factors that the <i>EMC</i> shall consider, in addition to the other requirements set out in section 5.2, shall include:</p> <p>...</p>	<p>B.1.2 In making the decision described in <u>section</u> B.1.1 regarding <i>generation registered facilities</i> or <i>generation settlement facilities</i>, the factors that the <i>EMC</i> shall consider, in addition to the other requirements set out in section 5.2 <u>of this Chapter</u>, shall include:</p> <p>í</p>	<p>To correct a typographical error.</p> <p>To make clear that other relevant provisions of section 5 of Chapter 2 (and not just section 5.2) may also be applicable.</p>
<p>B.1.3 In making the decision described in B.1.1 regarding <i>generation registered facilities</i>, the factors that the <i>PSO</i> shall consider, in addition to the other requirements set out in section 5.2, shall include:</p> <p>í</p> <p>B.1.3.3 Whether a forced outage of one generation unit in a multi-unit facility is reasonably likely to result in forced</p>	<p>B.1.3 In making the decision described in <u>section</u> B.1.1 regarding <i>generation registered facilities</i>, the factors that the <i>PSO</i> shall consider, in addition to the other requirements set out in section 5.2 <u>of this Chapter</u>, shall include:</p> <p>í</p> <p>B.1.3.3 Whether a forced outage of one generation unit <u>simultaneous or consecutive forced outage of multiple <i>generating units</i> in a multi-unit facility</u> is reasonably likely to <u>occur</u> result in</p>	<p>To correct a typographical error.</p> <p>To make clear that the reference to section 5.2 is a reference to section 5.2 of Chapter 2, and not to a section of this Appendix (when read together with section 7.1.1.7 of Chapter 1).</p> <p>To add the requirement that the <i>PSO</i> will also consider whether simultaneous or</p>

Existing rules (Release: 1 April 2008)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Remarks
<p>outages at other generation units in the multi-unit facility so that the failure of the entire group of generation units must be considered a single contingency; and,</p>	<p>forced outages at other generation units in the multi-unit facility so that the failure of the entire group of generation <u>generating units</u> must be considered a single contingency; and,</p> <p>í</p>	<p>consecutive forced outage of multiple generating units in a multi-unit facility is reasonably likely to occur. This is also to be in line with the conditions described in section C6.9 of the Transmission Code in the case of generation registered facilities which are Combined-Cycle Plants.</p>
	<p><u>B.1.4 To enable the EMC and the PSO to make the decision in section B.1.1, it shall be the responsibility of the market participant to demonstrate to the EMCs and the PSO's satisfaction that the relevant criteria and factors set out in this Appendix and the other requirements set out in section 5 of this Chapter will be met.</u></p>	<p>To make it explicit that it shall be the market participant's responsibility to demonstrate that the facility meets all relevant criteria, factors and requirements under the Appendix and section 5 of Chapter 2.</p>
<p><u>CHAPTER 8</u></p>	<p><u>CHAPTER 8</u></p>	
<p>1.1.113 <i>generation facility</i> means one or more <i>generating units</i> at the same physical location;</p>	<p>1.1.113 <i>generation facility</i> means one or more <i>generating units</i> at the same physical location <u>generating station</u>;</p>	<p>To change the word "physical location" into "generating station".</p>
<p>1.1.115 <i>generation settlement facility</i> or <i>GSF</i> means a</p>	<p>1.1.115 <i>generation settlement facility</i> or <i>GSF</i> means a</p>	<p>Formatting change only.</p>

Existing rules (Release: 1 April 2008)	Proposed Rules Changes (Deletions represented by strikethrough text and additions represented by double underlined text)	Remarks
generation facility that has been registered for settlement purposes only in accordance with section 5.4 of Chapter 2;	generation facility <u>generation facility</u> that has been registered for settlement purposes only in accordance with section 5.4 of Chapter 2;	
1.1.159 <i>multi-unit facility</i> means a <i>generation registered facility</i> or a <i>generation settlement facility</i> that is a Combined-Cycle Plant as defined in the <i>Transmission Code</i> .	1.1.159 <i>multi-unit facility</i> means a <i>generation registered facility</i> or a <i>generation settlement facility</i> that is a Combined Cycle Plant as defined in the Transmission Code. <u>that comprises more than one generating unit at the same generating station.</u>	To make clear that a multi-unit facility could be either a generation registered facility or a generation settlement facility that comprises more than one generating unit at the same generating station.

ANNEX 2 Proposed Modification to the Market Administration Market Manual (Part 2) (Clean Version)

Application form for Generation Facility Registration

including explanatory notes

IMPORTANT: Please read this carefully before completing this form. Italicised words and expressions used herein (but not otherwise defined herein) shall have the same meanings respectively ascribed to them in the Singapore Electricity Market Rules.

Why do you need to complete this form?

Under the *market rules*, if you are not a *market support services licensee*, you are **not permitted** to participate in the *real-time markets* or to cause or permit any *physical service* to be conveyed into, through or out of the *transmission system* unless you have been registered by the *EMC* as a *market participant*, and your facility to or from which the *physical service* is to be so conveyed has been registered by the *EMC* as a *registered facility*, a *commissioning generation facility* or as a *generation settlement facility* in accordance with the *market rules*.

The *EMC* is licensed by the Energy Market Authority (the *Authority*) to operate the *wholesale electricity markets* (to which the *real-time markets* form a part) in Singapore. One of the *EMC*'s responsibilities is to manage the registration of facilities in the *wholesale electricity markets*. You must complete and submit this form to apply to have a facility registered by the *EMC* if you wish to convey any *physical services* into, through or out of the *transmission system* and that facility is required or permitted to be registered under the *market rules*.

Why did EMC develop this form?

The *EMC* has developed this form for applicants to apply for the relevant facility registration described in the *market rules*. You should read the relevant sections of the *market rules* prior to completing this form. Please also read the *EMC* disclaimer at the end of this form.

Who is eligible to apply for registration?

You must be registered as a *market participant* before you are eligible to apply for registration of your facilities.

If you are only granted *conditional registration* as a *market participant*, you may also apply for registration of your facilities, but your facilities will not be registered unless you become registered as a *market participant* within the relevant conditional registration deadline.

What are the types of facility registration?

The three types of *registered facilities* are:

- *Generation registered facility*
- *Generation settlement facility*
- *Commissioning generation facility* (you need to complete a separate form for this type of registration).

This application form is to be used for application for registration of either a *generation registered facility* or a *generation settlement facility* only. If you wish to register your facility as a *commissioning generation facility*, please use the Application Form for Commissioning Generation Facility Registration.

Generation Registered Facility

If all the *generation facilities* of a *generating station* together have an aggregate name-plate rating of 10 MW or more, all such *generation facilities* must be registered as either a single *generation registered facility* or two or more *generation registered facilities* in accordance with the *market rules*. A *generation registered facility* is subject to *dispatch* by the *PSO*. A *generation registered facility* shall at all times have a valid *standing offer* for each *physical service* that it intends to provide in the *real-time markets*.

Generation Settlement Facility

A *generation settlement facility* is registered for the delivery of *energy* only and is not subject to *dispatch* by the *PSO*. If all the *generation facilities* of a *generating station* together have an aggregate name-plate rating of 1 MW or more but less than 10 MW, all such *generation facilities* must be registered as either a single *generation settlement facility* or two or more *generation settlement facilities* in accordance with the *market rules*. But if any of such *generation facility* is to be subject to *dispatch* by the *PSO*, that *generation facility* must be registered as a *generation registered facility* instead.

When will you know the outcome of your application?

The *EMC* will notify you in writing of the outcome within 30 *business days* of the *EMC* being satisfied that your application meets all the requirements for *generation facility* registration under the *market rules*, the applicable *market manuals* and the *system operation manual*. If your application is declined, the notification will identify why this was the case. A duly and accurately completed form will expedite *EMC's* processing of your application.

What should you do if you have more than one facility to register?

Please fill in a separate form for **each** application for registration of a *generation registered facility* or *generation settlement facility*. You can download additional copies of the form from the *EMC* website at www.emcsg.com.

Is there an application fee for your application to register your facility?

There is no application fee payable for your application to register your facility.

Summary of registration requirements for a generation registered facility

The key requirements in the process for the registration of your facility as a *generation registered facility* are outlined in the table below:

A	Meet the EMC's requirements	<p>You must be sure that</p> <ul style="list-style-type: none"> ▪ your facilities and equipment meet all applicable technical requirements set forth in the <i>market rules</i>, any applicable <i>market manuals</i> or <i>the system operation manual</i>; and ▪ you are able to perform all the functions and obligations applicable to you under the <i>market rules</i>, <i>market manuals</i> or <i>system operation manual</i>. <p>If your facility is located outside of Singapore, the <i>EMC</i> may impose additional requirements for the registration of your facility.</p>
B	Meet the PSO's requirements	<ul style="list-style-type: none"> • You must complete the <i>PSO's</i> Data Form for Generation Facility Registration, meeting all the applicable technical requirements and attaching any required documents during submission. • The registration of your facility is subject to the <i>PSO</i> advising the <i>EMC</i> that such facility poses no threat to the <i>reliability</i> or <i>security</i> of the <i>PSO controlled system</i>.
C	Meet metering requirements	<p>You must secure the <i>MSSL's</i> written confirmation to the <i>EMC</i> that the <i>MSSL</i> is ready to submit all settlement data required under the <i>market rules</i> for your facility to the <i>EMC</i>.</p>
D	Prepare and attach required documents	<p>You must duly complete this application form in respect of your facility and provide all required supporting documents with your application, including the following:</p> <ul style="list-style-type: none"> • A certified true copy of your duly executed <i>connection agreement</i> with the <i>transmission licensee</i> for your facility. • A certified true copy of your duly executed <i>market participant - market services support licensee</i> agreement with the <i>MSSL</i> for your facility. • An original duly completed Data Form for Generation Facility Registration required by the <i>PSO</i> (as set out in Appendix C of this application form) for your facility. • An original duly completed and executed Certificate and Undertaking (in the form and terms prescribed in Appendix B of this application form) for your facility.
E	Standing Offer Data	<p>You must comply with section D.</p>
F	Registration as a generation registered facility	<p>Your facility will be registered as a <i>generation registered facility</i> if the <i>EMC</i> is satisfied that your facility meets all the requirements for such facility registration under the <i>market rules</i>, the applicable <i>market manuals</i> or the <i>system operation manual</i>. The <i>EMC</i> will notify you of the terms and conditions of the registration in an official notice to you. If your application is declined, the <i>EMC</i> will write to you stating the reasons.</p>

Summary of registration requirements for a generation settlement facility

The key requirements in the process for the registration of your facility as a *generation settlement facility* are outlined in the table below:

<p>A Meet the EMC's requirements</p>	<p>You must be sure that</p> <ul style="list-style-type: none"> ▪ your facility meets all applicable technical requirements set forth in the <i>market rules</i>, any applicable <i>market manuals</i> or the <i>system operation manual</i>; and ▪ you are able to perform all the functions and obligations applicable to you under the <i>market rules</i>, <i>market manuals</i> or <i>system operation manual</i>. <p>If your facility is located outside of Singapore, the <i>EMC</i> may impose additional requirements for the registration of your facility.</p>
<p>B Meet the PSO's requirements</p>	<ul style="list-style-type: none"> • You must complete the <i>PSO's Data Form for Generation Facility Registration</i>, meeting all the applicable technical requirements and attaching any required documents during submission. • The registration of your facility is subject to the <i>PSO</i> advising the <i>EMC</i> that such facility poses no threat to the <i>reliability</i> or <i>security</i> of the <i>PSO controlled system</i>.
<p>C Meet metering requirements</p>	<p>You must secure the <i>MSSL's</i> written confirmation to the <i>EMC</i> that the <i>MSSL</i> is ready to submit all settlement data required under the <i>market rules</i> for your facility to the <i>EMC</i>.</p>
<p>D Prepare and attach required documents</p>	<p>You must duly complete this application form in respect of your facility and provide all required supporting documents with your application, including the following:</p> <ul style="list-style-type: none"> • A certified true copy of your duly executed <i>connection agreement</i> with the <i>transmission licensee</i> for your facility. • A certified true copy of your duly executed <i>market participant - market services support licensee agreement</i> with the <i>MSSL</i> for your facility. • An original duly completed <i>Data Form for Generation Facility Registration</i> required by the <i>PSO</i> (as set out in Appendix C of this application form) for your facility. • An original duly completed and executed <i>Certificate and Undertaking</i> (in the form and terms prescribed in Appendix B of this application form) for your facility.
<p>E Registration as a generation settlement facility</p>	<p>Your facility will be registered as a <i>generation settlement facility</i> if the <i>EMC</i> is satisfied that your facility meets all the requirements for such facility registration under the <i>market rules</i>, the applicable <i>market manuals</i> or the <i>system operation manual</i>. The <i>EMC</i> will notify you of the terms and conditions of the registration in an official notice to you. If your application is declined, the <i>EMC</i> will write to you stating the reasons.</p>

How can you find more information?

In addition to this form and the *market rules*, you may obtain more information by contacting the *EMC* Market Administration Team by telephone +65 6779 3000. Alternatively, you may visit the *EMC* website at <http://www.emcsg.com>.

Please print clearly. Illegible writing or incomplete forms may delay the processing of your application.

A. APPLICANT DETAILS

Name of applicant: _____

Company registration number: _____

Registered Address: _____

B. REGULATORY DETAILS

1. **Authorised activities relating to *electricity* under your *electricity licence(s)*?**

Note: You may check one or more of the following boxes indicating the type of activities authorized under your *electricity licence(s)*

- generate *electricity*
- retail *electricity*
- transmit *electricity*
- transmit *electricity* for or on behalf of a *transmission licensee*
- import *electricity*
- export *electricity*
- trade in *wholesale electricity market*

Electricity licence number(s) _____

State activities exempted from licensing requirement _____

Exemption order number _____

2. **What type of facility registration are you applying for?**

- generation registered facility* *generation settlement facility*

3. **Derogation requested** Yes No

4. **Wholesale Electricity settlement account number:** _____

C. FACILITY DETAILS

5. **Name of the facility:** _____

6. **Name of owner of the facility:** _____

7. **Location of the facility:** _____

8. **Meter ID number(s)** _____
 (Please also complete **Appendix A** of this application form.)

9. **Dispatch coordinator for the facility:** _____
 (for registration of *generation registered facility* only)

10. **Contacts of the dispatch coordinator for the facility:**

	Main Contact	Alternate contact
Full Name & Designation		
Contact Numbers		
Email Address		
Hand phone Nos.		
Fax Nos.		

11. **Physical service intended to be provided from the facility:**

- Energy
- Reserve (Primary Secondary Contingency)
- Regulation

(In the case of a facility to be registered as a *generation settlement facility*, please tick energy+only.)

12. **Other authorisations/approvals granted by the Authority**

- Authorisation for classification of your facility as an embedded *generation facility* for the purposes of (USEP+HEUC)/Nodal Price Neutralisation Yes No
- Approval for classification of your facility as a *non-injecting generation facility* for the purposes of net treatment on non-reserve charges Yes No

(If yes, please provide a copy of the Authority's written authorisation or approval as the case may be.)

D. STANDING OFFER DATA

(This section is only applicable if your facility is to be registered as a *generation registered facility*.)

Please provide a *standing offer* for each *physical service* to be provided from your facility to be registered as a *generation registered facility*. Each such *standing offer* for your facility must be submitted to the EMC in the data format required by and in accordance with the EMC's Market Operations Market Manual on Standing Offers, Offer Variations and Standing Data (Chapter 6 Market Rules).

**E. GENERATION FACILITY REGISTRATION
(FOR SUBMISSION TO THE PSO)**

Please complete the *PSO Data Form* for Generation Facility Registration which is attached as **Appendix C** of this application form. All relevant sections in the form must be duly completed. The duly completed form must be sent to the *EMC* together with all supporting documentation.

F. CHECKLIST OF SUPPORTING DOCUMENTS REQUIRED

You must attach the following documents to your application form:

- A certified true copy of your duly executed *connection agreement* with the *transmission licensee* for your facility.
- A certified true copy of your duly executed *market participant - market support services licensee* agreement with the *MSSL* for your facility.
- A certified true copy of written authorisation/approval (if any) from the *Authority* for
 - classification of your facility as an embedded *generation facility* for the purposes of (USEP+HEUC)/Nodal Price Neutralisation
 - classification of your facility as a *non-injecting generation facility* for the purposes of net treatment on non-reserve charges
- An original duly completed Data Form for Generation Facility Registration required by the *PSO* for your facility.
- An original duly completed and executed Certificate and Undertaking (substantially in the form and terms prescribed in **Appendix B** of this application form) for your facility.

=====

FOR EMC OFFICIAL USE

1. Assigned MNN number(s) for this facility _____

INFORMATION PROVIDED BY THE MSSL TO THE EMC

2. Respective RQM (as defined by MSSL) Id no(s) _____

2.1. Location of the facility _____

G. COVENANT AND DECLARATION

We, the undersigned applicant, having read and fully understood the *market rules*, the terms of this application form, the applicable *market manuals*, the *system operations manual*, the *Electricity Act*, and any other applicable laws, codes, rules, procedures or policies that are relevant to or regulate the *wholesale electricity markets* (collectively the *Regulations*), and/or having had the benefit of relevant independent advice, hereby apply to register our facility either as a *generation registered facility* or a *generation settlement facility* as stated in this application form.

We hereby agree to be bound by, and to comply with, all the *Regulations* which may be applicable to us, our registration application herein, our facility and our participation in the relevant *wholesale electricity markets*.

We further hereby declare that the information provided by us (or on our behalf) in or in connection with this registration application is true, complete and accurate and not misleading or omitting any material particular (to the best of our knowledge, information and belief after having carried out all necessary due diligence to determine the same) and hereby covenant to be subject to any sanctions, penalties or orders as may be imposed by the relevant authorities/parties under the *Regulations*, in the event that such information is found to be untrue, misleading or inaccurate in any material particular.

We further hereby covenant to be legally bound by the relevant dispute resolution provisions under the *market rules* and any applicable *market manual*, in the event that this registration application is denied and a dispute arises from such unsuccessful application.

We confirm and acknowledge that the information provided by us (or on our behalf) in or in connection with this registration application may need to be disclosed, communicated or exchanged by the *EMC* to or with other parties, including but not limited to the *Authority*, the *PSO* and the *MSSL*, as necessary, desirable or expedient for the purposes of processing this registration application under the *Regulations* and we hereby consent to such disclosure, communication or exchange.

Signed for and on behalf of _____ (name of applicant):

Signature: _____

Name of officer: _____

Position/designation: _____

Date: _____

H. EMC'S DISCLAIMER

Energy Market Company Pte Limited (EMC) has produced this publication for use in connection with the Singapore Electricity Market. This publication is not a substitute for and should not be read in lieu of the Singapore Electricity Market Rules or any other applicable laws, codes, rules, procedures, manuals or policies that are relevant to or regulate the Singapore Electricity Market or the electricity industry. The contents of this publication do not constitute legal or business advice and should not be relied upon as a substitute for obtaining such advice.

EMC, its directors and employees, subsidiaries, associates and affiliates make no representations, endorsements or warranties of any kind whatsoever in relation to the contents of this publication, and in no event shall EMC, its directors and employees, subsidiaries, associates and affiliates be liable to any party for any damages, claims, expenses or losses of any kind arising from or in connection with any use of or reliance on the accuracy, availability, currency, title, non-infringement, quality, reliability, suitability and completeness of the contents of this publication.

Any modifications or amendments to this publication shall be made in accordance with the relevant provisions of the Singapore Electricity Market Rules.

Generation Facility Registration

Appendix A : Metering Details

S/No	Generation Facilities Name	Meter Type (Main, Check or Auxiliary)	Meter Serial Number	Station Load Meter Name (Please show tagging, if any)	Station Load Meter Serial Number	Market Network Node (assigned by EMC)
1						
2						
3						
4						

Note:

Please tag the station loads (if any) to the generation facilities.

Appendix B

SAMPLE CERTIFICATE AND UNDERTAKING [To be set out on the applicant's letterhead.]

CERTIFICATE AND UNDERTAKING

To: Energy Market Company Pte Ltd
(hereinafter referred to as the ~~EMC~~)

We, [state name of applicant], refer to our Application Form for Generation Facility Registration dated [state date] for the registration of [identify the relevant *generation facility* here] (~~our Facility~~) as a [*generation registered facility / generation settlement facility*]* under the *market rules* and applicable *market manuals* of the EMC (~~our Application~~).

Pursuant to our Application, we hereby confirm, certify and undertake to the EMC (with a view to the EMC relying upon our confirmations, certifications and undertakings herein in considering our Application) that:

- 1) we have (and we will continue to have through to, on and from the registration of our Facility by the EMC) operational control and authority over the Facility for the purposes of the *market rules*;
- 2) all our facilities and equipment to which our Application relates meet all applicable technical requirements under the *market rules*, the applicable *market manuals* and the *system operation manual*; and
- 3) we have adequate qualified personnel and organisational and other arrangements that are sufficient to enable us to perform all of our functions and obligations applicable to us as *market participants* under the *market rules*, the applicable *market manuals* and the *system operation manual*, including reliable services during normal and emergency situations, in respect of our participation in the *wholesale electricity market*.

Our confirmations, certifications and undertakings herein shall be governed by and construed in accordance with the laws of the Republic of Singapore. All italicised expressions used herein shall have the same meanings respectively ascribed to them in the Singapore Electricity Market Rules of the EMC.

Signed for and on behalf of the _____
(Name of Applicant)

Signature: _____

Name: _____

Designation: _____

Date: _____

* Delete where inapplicable.

Appendix C

Power System Operator (PSO) Data Form For Generation Facility Registration

[No Change]

ANNEX 3 Proposed Modification to the Market Administration Market Manual (Part 2) (with Marked Changes)



Energy
Market
Company

Based on the
Singapore Electricity Market Rules

Application form for Generation Facility Registration

including explanatory notes.

IMPORTANT: Please read this carefully important information before completing this form. Italicised words and expressions used herein (but not otherwise defined herein) shall have the same meanings respectively ascribed to them in the Singapore Electricity Market Rules.

Why do you need to complete this form?

Under the market rules, if you are not a market support services licensee, you are **not permitted** to participate in the real-time markets or to cause or permit any physical service to be conveyed into, through or out of the transmission system unless you have been registered by the Energy Market Company Pte Limited (EMC) as a market participant, and your facility to or from which the physical service is to be so conveyed has been registered by the EMC as a registered facility, a commissioning generation facility or as a generation settlement facility in accordance with the market rules.

The EMC is licensed by the Energy Market Authority (the Authority) to operate the wholesale electricity markets (to which the real-time markets form a part) in Singapore. One of the EMC's responsibilities is to manage the registration of facilities in the wholesale electricity market. You must complete and submit this form to apply to have a facility registered by the EMC if you wish to convey any physical services into, through or out of the transmission system and that facility is required or permitted to be registered under the market rules.:

- participate in the wholesale electricity market and/or;
- convey any physical services into, through or out of the transmission system.

Why did EMC develop this form?

The EMC has developed this form for applicants to apply for facilitate the relevant facility registration process described in the market rules. You should read the relevant sections of the market rules prior to completing this form. Please also refer to the EMC disclaimer at the end of this form.

Who is eligible to apply for registration? registered facility status?

You must be registered as have at least conditional registration status in the market participant before you are eligible to apply for registration of process before the EMC can process your facilities. application for facility registration.

If you are only granted conditional registration as a market participant, you may also apply for registration of your facilities, but your facilities will not be registered unless you become registered as a market participant within the relevant conditional registration deadline.

What are the types of facility registration?

The three types of registered facilities are:

- Generation registered settlement facility
- Generation settlement registered facility
- Commissioning generation generating facility (you need to complete a separate form for this type of registration).

This application form is to be used for application for registration of either a

You should register as a **generation settlement facility** if you have a generation registered facility or a facility of 1 MW or more but less than 10MW (as rated in its name plate) and you do not want it to be subject to dispatch by the Power System Operator (PSO).

You should register as a generation settlement facility only. If you wish to register your **registered** facility if you have a generation facility of 10MW or more (as rated in its name plate). You should also register as a **generation registered facility** if you have a facility of 1MW or more but less than 10MW (as rated in its name plate) and you want to subject it to dispatch by the PSO.

You should register as a commissioning generation facility, please if you have a generation facility of 10MW or more (as rated in its name plate) undergoing commissioning tests. You should register as a **commissioning**



~~**generation facility** if you have a *generation facility* of 1MW or more but less than 10MW (as rated in its name plate) and you wish to subject it to dispatch by the PSO whilst the facility is undergoing commissioning tests. Please use the Application Form for Registration of Commissioning Generation Facility Registration to register.~~

Generation Registered Facility

If all the *generation facilities* of a *generating station* together have an aggregate name-plate rating of 10 MW or more, all such *generation facilities* must be registered as either a single *generation registered facility* or two or more *generation registered facilities* in accordance with the *market rules*. A *generation registered facility* is subject to *dispatch* by the PSO. A *generation registered facility* shall at all times have a valid *standing offer* for each *physical service* that it intends to provide in the *real-time markets*.

Generation Settlement Facility

A *generation settlement facility* is registered for the delivery of *energy* only and is not subject to *dispatch* by the PSO. If all the *generation facilities* of a *generating station* together have an aggregate name-plate rating of 1 MW or more but less than 10 MW, all such *generation facilities* must be registered as either a single *generation settlement facility* or two or more *generation settlement facilities* in accordance with the *market rules*. But if any of such *generation facility* is to be subject to *dispatch* by the PSO, that *generation facility* must be registered as a *generation registered facility* instead.

When will you know the outcome of your application?

The EMC will notify you in writing of the outcome within 30 *business days* of the EMC being satisfied that receipt of your *application* meets all the requirements for *generation facility* fully completed registration under form or any further information or clarification requested by the EMC, whichever is the *market rules*, the applicable *market manual* later (unless you and the *system operation manual* EMC have agreed a longer time for this process). If your application is declined, the notification will identify why this was the case. –A duly complete and accurately completed form will expedite EMC's processing of help the EMC to process your *participant registration* application, within the above stated period.

What should you do if you have more than one facility to register?

Please fill in a separate form ~~sets of forms~~ for **each** application for registration of a *generation facility* to be registered *facility* or *generation settlement facility*. You can. – To do this, you may wish to download additional copies of the form ~~more forms~~ from the EMC website at: www.emcsg.com.

Is there an application fee for your application to register your facility? ~~registration?~~

There is no application fee payable for your application to register your facility. ~~registration.~~

Summary of registration requirements for a generation registered facility (10MW and above or 1MW to less than 10MW and subject to PSO dispatch)

The key requirements in the process for the registration of your facility as a generation registered facility

- ~~of 10MW or above (as rated in its name plate) or~~
- ~~1MW or more and less than 10MW (as rated in its name plate) and subject to PSO dispatch~~

are ~~outlined~~ set out in the table below:

<p>A <u>Meet the EMC's pre-registration requirements</u></p>	<p><u>You must be sure that</u></p> <ul style="list-style-type: none"> ▪ <u>your facilities and equipment meet all applicable technical requirements set forth in the market rules, any applicable market manuals or the system operation manual; and</u> ▪ <u>you are able to perform all the functions and obligations applicable to you under the market rules, market manuals or system operation manual.</u> <p><u>If your facility is located outside of Singapore, the EMC may impose additional requirements for the registration of your facility. You must be sure you can satisfy all applicable technical requirements before submitting your registration application. The EMC may test and inspect your equipment to ensure compliance. Successful completion of these tests is a pre-condition for registration. You must also ensure you have adequately qualified staff and identify your dispatch coordinator, who is authorised to submit dispatch data for your registered facility. You can change your dispatch coordinator only with the EMC's prior approval.</u></p>
<p>B <u>Meet the PSO's requirements</u></p>	<ul style="list-style-type: none"> • <u>You must complete the PSO's Data Form for Generation Facility Data Registration Form meeting all the applicable technical requirements and attaching any required documents during submission.</u> • <u>The registration of your facility is subject to the PSO advising the EMC that such facility poses no threat to the reliability or security of the PSO controlled system.</u>
<p>C <u>Meet metering requirements Prepare and attach required documents</u></p>	<p><u>YouAs a pre-requisite for registration, you must secureattach;</u></p> <ul style="list-style-type: none"> • <u>A copy of your connection agreement with the MSSL's written confirmation to transmission licensee.</u> • <u>Identification of the EMC thatphysical services to be provided by the MSSL is readyfacility.</u> <p><u>1. A standing offer for each physical service to submit all settlement data required underbe provided by the market rules for your facility to the EMC.-</u></p>
<p>D <u>Prepare and attach required documents Registration as a generation registered facility</u></p>	<p><u>If the EMC is satisfied that you meet the requirements of a generation registered facility, we will register you as one. The EMC will advise the terms and conditions of the registration in an official notice to you. If your application is declined, the EMC will write to you stating the reasons. You must duly complete this application form in respect of your facility and</u></p>

	<p>provide all required supporting documents with your application, including the following:</p> <ul style="list-style-type: none"> • A certified true copy of your duly executed <i>connection agreement</i> with the <i>transmission licensee</i> for your facility. • A certified true copy of your duly executed <i>market participant - market services support licensee</i> agreement with the <i>MSSL</i> for your facility. • An original duly completed Data Form for Generation Facility Registration required by the <i>PSO</i> (as set out in Appendix C of this application form) for your facility. • An original duly completed and executed Certificate and Undertaking (in the form and terms prescribed in Appendix B of this application form) for your facility. <p>If your facility is located outside Singapore, you may have to meet additional the <i>EMC</i> requirements.</p>
E	<p><u>Standing Offer Data</u></p> <p>You must comply with section D.</p>
E	<p><u>Registration as a generation registered facility</u></p> <p>Your facility will be registered as a <i>generation registered facility</i> if the <i>EMC</i> is satisfied that your facility meets all the requirements for such facility registration under the <i>market rules</i>, the applicable <i>market manuals</i> or the <i>system operation manual</i>. The <i>EMC</i> will notify you of the terms and conditions of the registration in an official notice to you. If your application is declined, the <i>EMC</i> will write to you stating the reasons.</p>

Summary of registration requirements for a generation settlement facility (1MW to less than 10MW and not subject to PSO dispatch)

The key requirements in the process for the registration of your facility as a generation settlement facility of 1 MW or more and less than 10MW (as rated in its name plate) and not subject to PSO dispatch are outlined set out in the table below:

<p>A <u>Meet the EMC's pre-registration requirements</u></p>	<p>You must be sure <u>that</u></p> <ul style="list-style-type: none"> ▪ <u>your facility meets you can satisfy</u> all applicable technical requirements <u>set forth in the market rules, any applicable market manuals or the system operation manual;</u> before submitting your registration application. The EMC may test and ▪ <u>you are able inspect your equipment to ensure compliance.</u> Successful completion of these tests is a pre-condition for registration. You must also ensure you have adequately qualified staff to perform all <u>the functions and obligations applicable to you under the market rules, market manuals or system operation manual.</u> <p><u>If your facility is located outside of Singapore, the EMC may impose additional requirements for the registration of your facility.</u></p>
<p>B <u>Meet the PSO's requirements Prepare and attach required documents</u></p>	<ul style="list-style-type: none"> • <u>You must complete the PSO's Data Form for Generation Facility Registration, meeting all the applicable technical requirements and attaching any required documents during submission.</u> <p><u>The registration As a pre-requisite for registration, you must attach;</u></p> <ul style="list-style-type: none"> • <u>A copy of your connection agreement with the transmission licensee.</u> • <u>Identification of the physical services to be provided by the facility is subject to the PSO advising.</u> • <u>A standing offer for each physical service to be provided by the EMC that such facility poses no threat to the reliability or security of the PSO controlled system.</u>
<p>C <u>Meet metering requirements Registration as a generation settlement facility</u></p>	<p><u>The EMC shall approve your registration when it is satisfied that:</u></p> <ul style="list-style-type: none"> • <u>You must secure have operational control and authority over the MSSL; a written confirmation to facility.</u> • <u>The facility is capable of operating as described in your registration (the EMC that may consult with the MSSL is ready to submit all PSO).</u> • <u>The PSO considers that the facility poses no threat to the reliability or security of the power system.</u> <p><u>If we are satisfied that you meet the requirements of a settlement data required under the market rules for your facility to the EMC, registered facility, we will register you as one. EMC will advise the terms and conditions of the registration in an official notice to you. If your application is declined, EMC will write to you stating the reasons. If your facility is located outside Singapore, you may have to meet additional EMC requirements.</u></p>
<p>D <u>Prepare and attach required documents</u></p>	<p><u>You must duly complete this application form in respect of your facility and provide all required supporting documents with your application, including the following:</u></p> <ul style="list-style-type: none"> • <u>A certified true copy of your duly executed connection agreement with the</u>

	<p><u>transmission licensee for your facility.</u></p> <ul style="list-style-type: none"> • <u>A certified true copy of your duly executed <i>market participant - market services support licensee</i> agreement with the <i>MSSL</i> for your facility.</u> • <u>An original duly completed Data Form for Generation Facility Registration required by the <i>PSO</i> (as set out in Appendix C of this application form) for your facility.</u> • <u>An original duly completed and executed Certificate and Undertaking (in the form and terms prescribed in Appendix B of this application form) for your facility.</u>
<p>E <u>Registration as a generation settlement facility</u></p>	<p><u>Your facility will be registered as a <i>generation settlement facility</i> if the <i>EMC</i> is satisfied that your facility meets all the requirements for such facility registration under the <i>market rules</i>, the applicable <i>market manuals</i> or the <i>system operation manual</i>. The <i>EMC</i> will notify you of the terms and conditions of the registration in an official notice to you. If your application is declined, the <i>EMC</i> will write to you stating the reasons.</u></p>

How can you find more information?

In addition to this form and the *market rules*, you ~~may obtain~~ find more information by contacting the *EMC* Market Administration Team by telephone- +65 6779 3000. Alternatively, you may visit the *EMC* website at <http://www.emcsq.com>.

Please print clearly. Illegible writing or incomplete forms may delay the processing of your application.

D. APPLICANT DETAILS

Name of applicant: _____

Company registration number: _____

Registered Address: _____

e-E. REGULATORY DETAILS

1. **Authorised activities relating to electricity under your** ~~What electricity licence(s) for the wholesale electricity market do you hold?~~

Note: You may ~~check only tick one or more of licence on this form. You should complete a separate form if you intend to perform different functions in the following boxes indicating the type of activities authorized under your~~ wholesale electricity licence(s) market.

- ~~generate~~ Generator electricity licence
- ~~retail~~ Retailer electricity licence
- ~~transmit~~ Transmission electricity licence
- ~~transmit~~ An electricity for or on behalf of a transmission licensee
- ~~import licence other than a generator or retailer licence permitting the holder to trade in the wholesale electricity market~~
- ~~export~~ We have been exempted by the Authority from the need to hold an electricity licence
- ~~trade in wholesale electricity market~~

4. Electricity licence number(s) _____
_____ number _____

State activities exempted from licensing requirement _____

Exemption order number _____

2. **What type of facility registration are you applying for?**

- ~~generation~~ Generation registered facility ~~generation~~ Generation settlement facility

3. **Derogation requested** Yes No

4. Wholesale Electricity settlement account number: _____
: _____

F.F. FACILITY DETAILS

5. Name of the facility: _____

6. Name of owner of the facility: _____

7. **Location**~~Physical address~~ of the facility: _____

8. Meter ID
number(s) _____ **number** _____

(Please also complete **Appendix A** of this application form.)

9. **Dispatch coordinator for the facility:** _____
(for registration of *generation registered facility* only)

10. **Contacts of the** _____ **Designated** dispatch coordinator for the
facility _____
(*Market Participant authorised to submit dispatch data with respect to the registered facility*)

10. Designated dispatch coordinator contacts for the facility:

	Main Contact	Alternate contact
Full Name & Designation		
Contact Numbers		
Email Address		
Hand phone Nos.		
Fax Nos.		

11. Physical service intended to be provided from the facility:

Energy

Reserve (Primary Secondary Contingency)

Regulation

(In the case of a facility to be registered as a *generation settlement facility*, please tick energy+only.)

12. Other authorisations/approvals granted by the Authority

▪ Authorisation for classification of your facility as an embedded *generation facility* for the purposes of (USEP+HEUC)/Nodal Price Neutralisation Yes No

▪ Approval for classification of your facility as a *non-injecting generation facility* for the purposes of net treatment on non-reserve charges Yes No

(If yes, please provide a copy of the Authority's written authorisation or approval as the case may be.)

D.

G. STANDING OFFER DATA (For each ~~generation registered facility~~)

(This section is only applicable if your facility is to be registered as a *generation registered facility*.)

Please provide a *standing offer* for each *physical service* to be provided from your facility to be registered as a *generation registered facility*. Each such *standing offer* for your facility must be submitted to the EMC in theq data for energy, reserve and regulation (as applicable) in a CSV file format required by and in accordance with to Helpdesk@emcsg.com. For details please refer to the EMC's Market Operations Market Manual MARKET OPERATIONS MARKET MANUAL on Standing Offers, Offer Variations and Standing Data (Chapter 6 [Market Rules](#)).



[E_market rules](#)



**D. GENERATION FACILITY REGISTRATION
(FOR SUBMISSION TO THE PSO)**

Please ~~see attached PSO data form. The form shall be considered~~ complete only if all the PSO Data Form for Generation Facility Registration which is attached as **Appendix C** of this application form. All relevant sections in the form must be duly completed. The duly completed form must be sent to the EMC together with all supporting ~~are completed and relevant~~ documentation. ~~is attached.~~

F. CHECKLIST OF SUPPORTING DOCUMENTS REQUIRED

You must attach ~~certified true copies of~~ the following documents to your application form:

- ~~A certified true copy~~ Copy of your duly executed metering agreement with the MSSL.
- ~~Copy of connection agreement with the transmission licensee for your facility.-~~
- A certified true copy of your duly executed market participant - market support services licensee agreement with the MSSL for your facility.
- A certified true copy of written authorisation/approval (if any) from the Authority for
 - classification of your facility as an embedded generation facility for the purposes of (USEP+HEUC)/Nodal Price Neutralisation
 - classification of your facility as a non-injecting generation facility for the purposes of net treatment on non-reserve charges
- An original duly completed Data Form for Generation Facility Registration required by the PSO for your facility.
- An original duly completed and executed Certificate and Undertaking (substantially in the form and terms prescribed in Appendix B of this application form) for your facility.
- ~~An undertaking stating that adequate personnel and organisational arrangements are met for that facility, which include reliable services during normal and emergency situations.~~

FOR EMC OFFICIAL USE

~~5.3.~~ Assigned MNN number(s) for this ~~registered~~ facility _____

INFORMATION PROVIDED BY THE MSSL TO THE EMC

~~6.4.~~ Respective RQM (as defined by MSSL) Id no(s) _____

~~6.4.4.1.~~ Location ~~Physical address~~ of the facility _____



G.



F. COVENANT AND DECLARATION

~~I~~We, the undersigned ~~applicant, applicant(s),~~ having read and fully understood the market rules, the terms of this application form, the applicable market manuals, the system operations manual, the Singapore Electricity Market Rules (the Rules), the Companies Act (Chapter 50) (the CA), and any other applicable laws, codes, rules, procedures or policies that are relevant to or regulate the wholesale Singapore Electricity Market or the electricity markets (collectively the Regulations), industry (the Laws), and/or having had the benefit of relevant independent ~~legal~~ advice, hereby apply to register our facility either as a generation become registered facility or a generation settlement facility as a market participant under the Electricity Act 2001 of Singapore (the Act) and ~~covenant to comply with and be legally bound by the Act, the Rules, the CA and the Laws (as stated in this application form, the same may be amended from time to time).~~

~~I~~We hereby agree to be bound by, and to comply with, all, the Regulations which may be applicable to us, our registration application herein, our facility and our participation in the relevant wholesale electricity markets.

~~I~~We undersigned ~~applicant(s),~~ further hereby declare that the information provided by us (or on our behalf) in or in connection with me/us in this registration application form is both true, complete and accurate and not misleading or omitting any material particular (to the best of my/our knowledge, information and belief after having carried out all necessary due diligence to determine the same) and hereby covenant to be subject to any sanctions, penalties or orders as may be imposed by the relevant authorities/parties under the Regulations, Act, the Rules, the CA, or the Laws, in the event that such information is found to be untrue, misleading or inaccurate in any material particular, by the relevant authorities.

~~I~~We, the undersigned ~~applicant(s),~~ further hereby covenant to be legally bound by the relevant dispute resolution provisions under the market rules and any applicable market manual, Rules, in the event that this ~~application for~~ registration application is denied and a dispute arises from such unsuccessful application.

We confirm and acknowledge that the information provided by us (or on our behalf) in or in connection with this registration application may need to be disclosed, communicated or exchanged by the EMC to or with other parties, including but not limited to the Authority, the PSO and the MSSL, as necessary, desirable or expedient for the purposes of processing this registration application under the Regulations and we hereby consent to such disclosure, communication or exchange.

Signed for and on behalf of _____ (name of applicant);~~the Applicant by:~~

Signature: _____

Name of officer: _____

Position/designation: ~~Position:~~ _____

Date: _____



H.G. EMC'S DISCLAIMER

Energy Market Company Pte Limited (~~EMC~~) has produced this publication for use in connection with the Singapore Electricity Market. This publication is not a substitute for and should not be read in lieu of the Singapore Electricity Market Rules or any other applicable laws, codes, rules, procedures, manuals or policies that are relevant to or regulate the Singapore Electricity Market or the electricity industry. The contents of this publication do not constitute legal or business advice and should not be relied upon as a substitute for obtaining such advice.

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Any modifications or amendments to this publication shall be made in accordance with the relevant provisions of the Singapore Electricity Market Rules.

Generation Facility Registration

Appendix A : Metering Details ~~(per~~
~~Generation Licensee)~~

S/No	<u>Generation Generating Facilities Name</u>	Meter Type (Main, Check or Auxiliary)	Meter Serial Number	Station Load Meter Name (Please show tagging, if any)	Station Load Meter Serial Number	Market Network Node (assigned by EMC)
1						
2						
3						
4						

Note:

Please tag the station loads (if any) to
the generation ~~generating~~ facilities.

Appendix B

SAMPLE CERTIFICATE AND UNDERTAKING
[To be set out on the applicant's letterhead.]

CERTIFICATE AND UNDERTAKING

To: Energy Market Company Pte Ltd
(hereinafter referred to as the EMC)

We, [state name of applicant], refer to our Application Form for Generation Facility Registration dated [state date] for the registration of [identify the relevant *generation facility* here] (our Facility) as a [*generation registered facility / generation settlement facility*] under the *market rules* and applicable *market manuals* of the EMC (our Application).

Pursuant to our Application, we hereby confirm, certify and undertake to the EMC (with a view to the EMC relying upon our confirmations, certifications and undertakings herein in considering our Application) that:

- 4) we have (and we will continue to have through to, on and from the registration of our Facility by the EMC) operational control and authority over the Facility for the purposes of the *market rules*;
- 5) all our facilities and equipment to which our Application relates meet all applicable technical requirements under the *market rules*, the applicable *market manuals* and the *system operation manual*; and
- 6) we have adequate qualified personnel and organisational and other arrangements that are sufficient to enable us to perform all of our functions and obligations applicable to us as *market participants* under the *market rules*, the applicable *market manuals* and the *system operation manual*, including reliable services during normal and emergency situations, in respect of our participation in the *wholesale electricity market*.

Our confirmations, certifications and undertakings herein shall be governed by and construed in accordance with the laws of the Republic of Singapore. All italicised expressions used herein shall have the same meanings respectively ascribed to them in the Singapore Electricity Market Rules of the EMC.

Signed for and on behalf of the _____
(Name of Applicant)

Signature: _____

Name: _____

Designation: _____

Date: _____

* Delete where inapplicable.

Appendix C

Power System Operator (PSO) Data Form For Generation Facility Registration

[No Change]