

PUBLIC CONSULTATION ON RE-EVALUATION AND MODIFICATION OF THE CATALOGUE OF DATA

As required under section 4.3.2 of Chapter 3 of the Singapore Electricity Market Rules (“Market Rules”), the Catalogue of Data was developed by the Market Assessment Unit (“MAU”), under the supervision and direction of the Market Surveillance and Compliance Panel (“MSCP”). It is a detailed catalogue of all the data or categories of data the MSCP/MAU will have the need or means of acquiring.

The Catalogue of Data was adopted by the MSCP and made effective since 29 August 2003, after considering public comments received through consultation with market participants, service providers and all other interested parties in accordance with section 4.3.3 of Chapter 3 of the Market Rules.

Pursuant to section 4.3.6 of Chapter 3 of the Market Rules, the MSCP/MAU has re-evaluated and modified the existing Catalogue of Data. The proposed updated Catalogue of Data is enclosed in this paper.

Market participants, the market support services licensee (“MSSL”), the Power System Operator (“PSO”), Energy Market Company Pte Ltd (“EMC”), and other interested parties are invited to provide comments on the proposed updated Catalogue of Data to the MSCP by 4 May 2020:

Market Surveillance and Compliance Panel
c/o Market Assessment Unit
E-mail: mau@emcsg.com

13 April 2020

Proposed Updated Catalogue of Data Singapore Wholesale Electricity Market

Items marked “*” are considered confidential information

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
Generation Registered Facility Characteristics Data	NA.	NA.	NA.	NA.	NA.	We propose to include data collection of load registered facility: <ul style="list-style-type: none"> Type of data: Generation/Load Registered Facility Characteristics Data
	1*	Maximum installed capacity of each generation registered facility	Once and within 3 business days upon change	PSO	By fax	We propose to remove this data collection as it falls under item no. 2 below.
	2	Maximum generation capacity of each generation registered facility	Once and within 3 business days upon change	PSO	By fax	This information may be found in the document titled “Capacity for Registered Facilities” published by EMC on its public website. We propose to align with the above-mentioned arrangement and to include data collection of load registered facility: <ul style="list-style-type: none"> Description: Maximum generation capacity of each generation registered facility and maximum load curtailment capacity of each load registered facility Source: EMC Means of obtaining: EMC website
	3*	Maximum ramp-up rate of each generation registered facility	Once and within 3 business days upon change	PSO	By fax	This information is also provided by EMC to the MSCP/MAU as part of the data referred to in the Information Requirements

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
						<p>established in section 4.3.10 of Chapter 3 of the Market Rules ("Information Requirements").</p> <p>We propose to align with the above-mentioned arrangement and to include data collection of load registered facility:</p> <ul style="list-style-type: none"> • Description: Maximum ramp-up rate of each generation/load registered facility • Source: EMC • Means of obtaining: By e-mail
	4*	Maximum ramp-down rate of each generation registered facility	Once and within 3 business days upon change	PSO	By fax	<p>This information is also provided by EMC to the MSCP/MAU as part of the data referred to in the Information Requirements.</p> <p>We propose to align with the above-mentioned arrangement and to include data collection of load registered facility:</p> <ul style="list-style-type: none"> • Description: Maximum ramp-down rate of each generation/load registered facility • Source: EMC • Means of obtaining: By e-mail
	5	Maximum reserve capacity (primary, secondary and contingency) of each generation registered facility	Once and within 3 business days upon change	PSO	By fax	<p>We propose to remove the reference to secondary reserve.</p> <p>This information may be found in the document titled "Capacity for Registered Facilities" published by EMC on its public website.</p>

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
						<p>We propose to align with the above-mentioned arrangement and to include data collection of load registered facility:</p> <ul style="list-style-type: none"> • Description: Maximum reserve capacity (primary and contingency) of each generation/load registered facility • Source: EMC • Means of obtaining: EMC website
	6	Maximum combined generation capacity and reserve capacity of each generation registered facility	Once and within 3 business days upon change	PSO	By fax	<p>This information is also provided by EMC to the MSCP/MAU as part of the data referred to in the Information Requirements.</p> <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> • Source: EMC • Means of obtaining: By e-mail
	7	Maximum regulation capacity of each generation registered facility	Once and within 3 business days upon change	PSO	By fax	<p>This information may be found in the document titled "Capacity for Registered Facilities" published by EMC on its public website.</p> <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> • Source: EMC • Means of obtaining: EMC website
	8*	Maximum energy output at which AGC can operate for each generation registered facility	Once and within 3 business days upon change	PSO	By fax	<p>This information is also provided by EMC to the MSCP/MAU as part of the data referred to in the Information Requirements.</p>

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
						<p>We propose to align with the above-mentioned arrangement and to define AGC according to section 1.1.15 of Chapter 8 of the Market Rules:</p> <ul style="list-style-type: none"> • Description: Registered AGC ("automatic generator control") maximum energy output level for each generation registered facility • Source: EMC • Means of obtaining: By e-mail
	9*	Minimum energy output at which AGC can operate for each generation registered facility	Once and within 3 business days upon change	PSO	By fax	<p>This information is also provided by EMC to the MSCP/MAU as part of the data referred to in the Information Requirements.</p> <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> • Description: Registered AGC minimum energy output level for each generation registered facility • Source: EMC • Means of obtaining: By e-mail
	10*	Fuel type of each generation registered facility	Once and within 3 business days upon change	Generation Licensee	By e-mail	No change.
	11	Year the generation registered facility was first commissioned	Once	Generation Licensee	By e-mail	<p>This information is currently provided by EMC to the MSCP/MAU as part of new facility registrations to the market.</p> <p>We propose to align with the above-mentioned arrangement and to include data collection of load registered facility:</p>

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
						<ul style="list-style-type: none"> Description: Date the generation/load registered facility was first commissioned Source: EMC
	12*	Total annual forced outage hours (past three years) of each generation registered facility	Once	Generation Licensee	By e-mail	<p>This information is currently provided by the PSO every quarter in accordance with section 7.1.3 of Chapter 5 of the Market Rules.</p> <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> Description: Forced outage duration of each generation registered facility Frequency of collection: Quarterly Source: PSO
	13*	Total annual planned outage hours (past three years) of each generation registered facility	Once	Generation Licensee	By e-mail	<p>This information is currently provided by the PSO to the MSCP/MAU in the document titled "Application for Generator/Transmission Equipment Outage".</p> <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> Description: Planned outage duration of each generation registered facility Frequency of collection: Upon occurrence, by the next business day Source: PSO
	14*	Total annual overhaul hours (past three years) of each	Once	Generation Licensee	By e-mail	We propose to remove this data collection as it falls under items 12 and 13 above.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
		generation registered facility				
	15*	Annual availability factor i.e. the percentage of time a generation registered facility is available to generate electricity in a year (past three years) of each generation registered facility	Once	Generation Licensee	By e-mail	We propose to remove this data collection as this information is being separately compiled by the MSCP/MAU as part of our quarterly/annual reporting under "capacity ratio".
Transmission System Data	16*	Maps and diagrams of the transmission system showing: ratings of transmission lines import links from Malaysia location of each generation registered facility	Once and within 3 business days upon change	PSO	By registered mail	We propose to obtain this information via e-mail from the PSO: <ul style="list-style-type: none"> Means of obtaining: By e-mail
	17	Transmission line forced outage	Upon occurrence, by the next business day	PSO	By fax	This information is currently provided by the PSO and is published on EMC's website in the "Secure Area" section. <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> Means of obtaining: EMC website
	18	Proposed transmission line de-rating advice	Upon occurrence, by the next business day	PSO		This information is currently provided by the PSO and is published on EMC's website in the "Secure Area" section. <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> Means of obtaining: EMC website
	19	Proposed transmission line maintenance outage programme	Daily, by the next business day	PSO	EMC website	No change.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
Supply Data	20*	Occurrences of discretionary dispatch action taken by PSO	Upon occurrence, by the next business day	PSO	By fax	We propose to obtain this information via e-mail from the PSO: <ul style="list-style-type: none"> Means of obtaining: By e-mail
	21*	Offers of energy, reserve and regulation submitted by all market participants	Daily, within 6 business days after the trading day	EMC	By CSV reports	We propose to include data collection of load registered facility and to reflect the frequency of collection with the existing arrangement: <ul style="list-style-type: none"> Description: Offers/bids of energy, reserve and regulation submitted by all market participants Frequency of collection: Daily
	22*	Offers exceeding offer change limits (offer variations and revisions to standing offers)	Daily, by the next business day	EMC	By CSV reports	We propose to include data collection of load registered facility: <ul style="list-style-type: none"> Description: Offers/bids submitted after gate closure
	23*	Scheduled dispatch quantity of energy, reserve and regulation by generation registered facility/market participant	Daily, within 6 business days after the trading day	EMC	By CSV reports	We propose to include data collection of load registered facility: <ul style="list-style-type: none"> Description: Scheduled dispatch quantities of energy, reserve and regulation by generation/load registered facility and market participant
	24*	Maximum target, minimum target and initial output of each scheduled generation registered facility	Daily, within 6 business days after the trading day	EMC	By CSV reports	We propose to reflect the frequency of collection with the existing arrangement: <ul style="list-style-type: none"> Frequency of collection: Daily
	25*	Metered generation quantity by generation registered	Daily, within 11 business days after the trading day	EMC	By CSV reports	No change.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
		facility/market participant				
	26	Annual overhaul duration of each generation registered facility in hours	Annually and upon change, within 3 business days after approval by PSO	PSO	EMC website	We propose to remove this data collection as it falls under items 12 and 13 above.
	27	Total generation capacity under maintenance (planned outages and annual overhaul)	Daily, by the next business day	PSO	EMC website	We propose to remove this data collection as it falls under items 12 and 13 above.
	28	Short-term planned outage by generation registered facility	Upon occurrence, by the next business day	PSO	By fax	We propose to remove this data collection as it falls under items 12 and 13 above.
	29	Forced outage by generation registered facility	Upon occurrence, by the next business day	PSO	By fax	<p>This information is currently provided by the PSO to the MSCP/MAU in the document titled "Equipment/Facility Forced Outage Notification and Reports".</p> <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> Means of obtaining: By e-mail
	30	Generation registered facility de-rating notification	Upon occurrence, by the next business day	PSO	By fax	<p>We propose that this information be sent to MSCP/MAU by e-mail:</p> <ul style="list-style-type: none"> Means of obtaining: By e-mail
	31	Security constraints (location, timing, volume, cause)	Upon occurrence, by the next business day	PSO	By e-mail	<p>This information is currently provided by the PSO and is published on EMC's website in the "Secure Area" section.</p> <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> Means of obtaining: EMC website
	32	Load shed forecast	Upon occurrence, by the	PSO	By e-mail	This information is currently provided by

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
			next business day			the PSO and is published on EMC's website in the "Secure Area" section. We propose to align with the above-mentioned arrangement: <ul style="list-style-type: none"> Means of obtaining: EMC website
	33	Load shed advisory notice	Upon occurrence, by the next business day	PSO	By e-mail	This information is currently provided by the PSO and is published on EMC's website in the "Secure Area" section. We propose to align with the above-mentioned arrangement: <ul style="list-style-type: none"> Means of obtaining: EMC website
	34*	Intertie submission information	Upon occurrence, by the next business day	PSO	By fax	We propose to obtain this information by e-mail from the PSO: <ul style="list-style-type: none"> Means of obtaining: By e-mail
	35*	Availability factor (i.e. the percentage of time a generation registered facility is available to generate electricity) of each generation registered facility	Quarterly, within 6 business days after the end of quarter	Generation Licensee	By fax or e-mail	We propose to remove this data collection as this information is being separately compiled by the MSCP/MAU as part of our quarterly/annual reporting under "capacity ratio".
Demand Data	36	Pre-dispatch load forecast	Daily, within 6 business days after the trading day	EMC	By CSV reports	No change.
	37	Real-time load forecast	Daily, within 6 business days after the trading day	EMC	By CSV reports	No change.
	38	Actual system demand (settlement ready metering data)	Daily, within 11 business days after the trading day	EMC	By CSV reports	No change.
	39	Historical system demand	Once	EMC	By e-mail	We propose to remove this data collection

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
		(past three years)				as this information is being separately compiled by the MSCP/MAU as part of our quarterly/annual reporting.
Pricing Data	40	Half hourly Market Energy Price ("MEP") at all market network nodes ("MNN")	Daily, within 6 business days after the trading day	EMC	By CSV reports	No change.
	41	Half hourly Uniform Singapore Energy Price ("USEP")	Daily, within 6 business days after the trading day	EMC	By CSV reports	No change.
	42	Half hourly regulation price	Daily, within 6 business days after the trading day	EMC	By CSV reports	No change.
	43	Half hourly reserve prices: primary, secondary and contingency	Daily, within 6 business days after the trading day	EMC	By CSV reports	We propose to remove the reference to secondary reserve: <ul style="list-style-type: none"> Description: Half-hourly reserve prices: primary and contingency
	44	Uplift charges	Daily, within 11 business days after the trading day	EMC	By CSV reports	No change.
	45*	Pre-dispatch schedules	Daily, within 6 business days after the trading day	EMC	By CSV reports	No change.
	46*	Real-time dispatch schedules	Daily, within 6 business days after the trading day	EMC	By CSV reports	No change.
	47	Wholesale price (i.e. the approximate wholesale price that retailers pay for electricity) in \$/MWh	Monthly, within 6 business days after month end	EMC	By CSV reports	We propose the following amendments for clarity in this catalogue: <ul style="list-style-type: none"> Description: Half-hourly Wholesale Electricity Price ("WEP") Frequency of collection: Daily, within 11 business days after the trading day
Other Data	48	Advisory notices reported by frequency, time, day and type	Daily, within 6 business days after the trading day	EMC	By CSV reports	This information is currently published on EMC's website in the "Secure Area" section.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
						<p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> Means of obtaining: EMC website
	49*	Information on issuance of notice of default and exercise of rights of credit support	Upon occurrence, by the next business day	EMC	By CSV reports	<p>Given the tight four business days suspension hearing timeline prescribed in the Market Rules, we believe it is critical that we be informed promptly on the same business day on the occurrence of the issuance of notice of default and exercise of rights of credit support. This information is also now sent by e-mail to MSCP/MAU.</p> <p>We propose to align with the above-mentioned arrangement:</p> <ul style="list-style-type: none"> Frequency: Upon occurrence, on the same business day Means of obtaining: By e-mail
	50*	Information on total cost and providers of contracts of ancillary services	Within 10 business days of entry into new contracts	EMC	By CSV reports	No change.
	51*	Total turnover in the energy market (in MWh and \$)	Monthly, within 11 business days after month end	EMC	By CSV reports	No change.
	52*	Information on issuance and satisfaction of margin calls	Upon occurrence, on the same business day	EMC	By e-mail	<p>This is a proposed new data collection.</p> <p>Given the recent developments in the rise of independent retailers under a fully liberalised retail market structure, we believe it is important to proactively monitor the risk of payment defaults by market participants.</p>
	53*	Information in relation to	Daily, within 10 business	EMC	By CSV	This is a proposed new data collection to

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU's Comments
		penalty imposed under the automatic financial penalty scheme on generation/load registered facility	days after the trading date		reports	reflect the existing arrangement.
	54*	Information in relation to non-compliance of embedded generation's declared quantity	Daily, within 10 business days after the trading date	EMC	By CSV reports	This is a proposed new data collection to reflect the existing arrangement.

Annex 1: Template for Submission of Comments

PART I – GENERAL INFORMATION OF PARTY COMPLETING THIS DOCUMENT		
Name <i>(where this document is completed on behalf of an organisation, please state the name of the organization)</i>		
Address		
Tel No.		
Fax No.		
Email Address		
Representatives <i>(where this document is completed on behalf of an organisation, please furnish the particulars of 2 representatives whom we may liaise with on this matter)</i>	Representative 1	Representative 2
Name		
Designation		
Tel No. <i>(if different from above)</i>		
Fax No. <i>(if different from above)</i>		
Email Address <i>(if different from above)</i>		
PART 2 – SUBMISSION OF COMMENTS		
	Reference to Item No.	Comments
1.		
2.		
3.		
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