

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 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. An updated Catalogue of Data was adopted by the MSCP on 1 July 2020.

Pursuant to section 4.3.6 of Chapter 3 of the Market Rules, the MSCP/MAU has re-evaluated and modified the 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 **6 January 2023**:

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

19 December 2022

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 Comments
Generation/Load Registered Facility Characteristics Data	N.A.	N.A.	N.A.	N.A.	N.A.	We propose that the data collection of load registered facility be grouped as a separate category. <ul style="list-style-type: none"> Type of data: Generation Registered Facility Characteristics Data
	1	Maximum generation capacity of each generation registered facility and maximum load curtailment capacity of each load registered facility	Once and within 3 business days upon change	EMC	EMC website	We propose that the data collection of load registered facility be grouped as a separate category: <ul style="list-style-type: none"> Description: Maximum generation capacity of each generation registered facility
	2*	Maximum ramp-up rate of each generation/load registered facility	Once and within 3 business days upon change	EMC	By e-mail	We propose that the data collection of load registered facility be grouped as a separate category. <ul style="list-style-type: none"> Description: Maximum ramp-up rate of each generation registered facility
	3*	Maximum ramp-down rate of each generation/load registered facility	Once and within 3 business days upon change	EMC	By e-mail	We propose that the data collection of load registered facility be grouped as a separate category.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU Comments
						<ul style="list-style-type: none"> Description: Maximum ramp-down rate of each generation registered facility
	4	Maximum reserve capacity (primary and contingency) of each generation/load registered facility	Once and within 3 business days upon change	EMC	EMC website	<p>We propose that the data collection of load registered facility be grouped as a separate category.</p> <ul style="list-style-type: none"> Description: Maximum reserve capacity (primary and contingency) of each generation registered facility
	5*	Maximum combined generation capacity and reserve capacity of each generation registered facility	Once and within 3 business days upon change	EMC	By e-mail	
	6	Maximum regulation capacity of each generation registered facility	Once and within 3 business days upon change	EMC	EMC website	
	7*	Registered automatic generator control ("AGC") maximum energy output level for each generation registered facility	Once and within 3 business days upon change	EMC	By e-mail	
	8*	Registered AGC minimum energy output level for each generation registered facility	Once and within 3 business days upon change	EMC	By e-mail	
	9*	Fuel type of each generation registered facility	Once and within 3 business days upon change	Generation Licensee	By e-mail	
	10	Date the generation/load registered facility was first commissioned	Once	EMC	By e-mail	<p>We propose that the data collection of load registered facility be grouped as a separate category.</p> <ul style="list-style-type: none"> Description: Date the generation registered facility was first commissioned

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU Comments
	11*	Total forced outage duration (past quarter) of each generation registered facility	Quarterly	PSO	By e-mail	
	12	Annual planned outage plan of each generation registered facility	Once and within the next business day upon change	PSO	EMC website	
Generation Settlement Facility ¹ Characteristics Data	N.A.	N.A.	N.A.	N.A.	N.A.	We propose to include data collection of generation settlement facility as a separate category.
	13	Maximum generation capacity of each generation settlement facility	Once and within 3 business days upon change	EMC	EMC website	We propose to include data collection of generation settlement facility.
	14*	Maximum ramp-up rate of each generation settlement facility	Once and within 3 business days upon change	EMC	By e-mail	We propose to include data collection of generation settlement facility.
	15*	Maximum ramp-down rate of each generation settlement facility	Once and within 3 business days upon change	EMC	By e-mail	We propose to include data collection of generation settlement facility.
	16*	Fuel type of each generation settlement facility	Once and within 3 business days upon change	Generation Licensee	By e-mail	We propose to include data collection of generation settlement facility.
	17	Date the generation settlement facility was first commissioned	Once	EMC	By e-mail	We propose to include data collection of generation settlement facility.
Load Registered Facility Characteristics Data	N.A.	N.A.	N.A.	N.A.	N.A.	We propose that the data collection of load registered facility be grouped as a separate category.
	18	Maximum load curtailment capacity of each load registered facility	Once and within 3 business days upon change	EMC	EMC website	We propose that the data collection of load registered facility be grouped as a separate category.

¹ Includes Intermittent Generation Facility.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU Comments
	19*	Maximum ramp-up rate of each load registered facility	Once and within 3 business days upon change	EMC	By e-mail	We propose that the data collection of load registered facility be grouped as a separate category.
	20*	Maximum ramp-down rate of each load registered facility	Once and within 3 business days upon change	EMC	By e-mail	We propose that the data collection of load registered facility be grouped as a separate category.
	21	Maximum reserve capacity (primary and contingency) of each load registered facility	Once and within 3 business days upon change	EMC	EMC website	We propose that the data collection of load registered facility be grouped as a separate category.
	22	Date the load registered facility was first commissioned	Once	EMC	By e-mail	We propose that the data collection of load registered facility be grouped as a separate category.
Import Registered Facility Characteristics	N.A.	N.A.	N.A.	N.A.	N.A.	We propose to include data collection of import registered facility as a separate category.
	23	Maximum import capacity of each import registered facility	Once and within 3 business days upon change	EMC	EMC website	We propose to include data collection of import registered facility.
	24*	Minimum scheduled quantity of each import registered facility established by the EMA	Once and within the next business day upon change	EMC	By e-mail	We propose to include data collection of import registered facility.
	25	Annual planned outage plan of each import registered facility	Once and within the next business day upon change	PSO	EMC website	We propose to include data collection of import registered facility.
	26*	Total forced outage duration (past quarter) of each import registered facility	Quarterly	PSO	By e-mail	We propose to include data collection of import registered facility.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU Comments
Transmission System Data	27*	Ratings of transmission lines import links from Malaysia	Once and within 3 business days upon change	PSO	By e-mail	
	28	Transmission line forced outage	Upon occurrence, by the next business day	PSO	EMC website	
	29	Proposed transmission line de-rating advice	Upon occurrence, by the next business day	PSO	By e-mail	
	30	Proposed transmission line maintenance outage programme	Daily, by the next business day	PSO	EMC website	
Supply Data	31*	Occurrences of discretionary dispatch action taken by PSO	Upon occurrence, by the next business day	PSO	By e-mail	
	32*	Occurrences of measures introduced by the Authority to stabilise the power system and market	Upon occurrence, by the next business day	EMA/PSO	By e-mail	<p>This includes:</p> <ul style="list-style-type: none"> Directed Supply Scheme, pursuant to the EMA's final determination paper on modifications to electricity market rules (section 3.7 of Chapter 5) in relation to pre-emptive direction to ensure secure and reliable electricity supply dated 21 December 2021; and Standby Capacity Scheme, pursuant to the EMA's final determination paper on the modifications to electricity market rules (section 3.11A of Chapter 3 and section 4.1 of Chapter 7) in relation to

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU Comments
						pre-emptive direction to ensure secure and reliable electricity supply dated 4 March 2022.
	33*	Offers/bids of energy, reserve and regulation submitted by all market participants	Daily	EMC	By CSV reports	
	34*	Offers/bids submitted after gate closure	Daily, by the next business day	EMC	By CSV reports	
	35*	Scheduled dispatch quantities of energy, reserve and regulation by generation/load registered facility and market participant	Daily, within 6 business days after the trading day	EMC	By CSV reports	<p>We propose to include data collection of import registered facility.</p> <ul style="list-style-type: none"> Description: Scheduled dispatch quantities of energy, reserve and regulation by generation/load/import registered facility and market participant
	36*	Maximum target, minimum target and initial output of each scheduled generation registered facility	Daily	EMC	By CSV reports	<p>We propose to include data collection of import registered facility.</p> <ul style="list-style-type: none"> Description: Maximum target, minimum target and initial output of each scheduled generation/import registered facility
	37*	Metered generation quantity by generation registered facility/market participant	Daily, within 11 business days after the trading day	EMC	By CSV reports	
	38*	Forced outage by generation registered facility	Upon occurrence, by the next business day	PSO	By e-mail	We propose to include data collection of import registered facility.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU Comments
						<ul style="list-style-type: none"> Description: Forced outage by generation/import registered facility
	39	Generation registered facility de-rating notification	Upon occurrence, by the next business day	PSO	By e-mail	<p>We propose to include data collection of import registered facility.</p> <ul style="list-style-type: none"> Description: Generation/import registered facility de-rating notification
	40	Security constraints (location, timing, volume, cause)	Upon occurrence, by the next business day	PSO	EMC website	
	41	Load shed forecast	Upon occurrence, by the next business day	PSO	EMC website	
	42	Load shed advisory notice	Upon occurrence, by the next business day	PSO	EMC website	
	43*	Intertie schedule	Daily, within 6 business days after the trading day	EMC	By CSV reports	
Demand Data	44	Pre-dispatch load forecast	Daily, within 6 business days after the trading day	EMC	By CSV reports	
	45	Real-time load forecast	Daily, within 6 business days after the trading day	EMC	By CSV reports	
	46	Actual system demand (settlement ready metering data)	Daily, within 11 business days after the trading day	EMC	By CSV reports	
Pricing Data	47	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	
	48	Half-hourly Uniform Singapore Energy Price (“USEP”)	Daily, within 6 business days after	EMC	By CSV reports	

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU Comments
			the trading day			
	49	Half-hourly regulation price	Daily, within 6 business days after the trading day	EMC	By CSV reports	
	50	Half-hourly reserve prices: primary and contingency	Daily, within 6 business days after the trading day	EMC	By CSV reports	
	51	Uplift charges	Daily, within 11 business days after the trading day	EMC	By CSV reports	
	52*	Pre-dispatch schedules	Daily, within 6 business days after the trading day	EMC	By CSV reports	
	53*	Real-time dispatch schedules	Daily, within 6 business days after the trading day	EMC	By CSV reports	
	54	Half-hourly Wholesale Electricity Price ("WEP")	Daily, within 11 business days after the trading day	EMC	By CSV reports	
Other Data	55	Advisory notices reported by frequency, time, day and type	Daily, within 6 business days after the trading day	EMC	EMC website	
	56*	Information on issuance of notice of default and exercise of rights of credit support	Upon occurrence, on the same business day	EMC	By e-mail	
	57*	Information on total cost and providers of contracts of ancillary services	Within 10 business days of entry into new contracts	EMC	By CSV reports	
	58*	Total turnover in the energy market (in MWh and \$)	Monthly, within 11 business days after month end	EMC	By CSV reports	
	59*	Information on issuance and satisfaction of margin calls	Upon occurrence, on the same business day	EMC	By e-mail	

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining	MSCP/MAU Comments
	60*	Information in relation to penalty imposed under the automatic financial penalty scheme on generation/load registered facility	Daily, within 10 business days after the trading date	EMC	By CSV reports	
	61*	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	
	62*	Information in relation to non-compliance of import registered facility's scheduled quantity requirement	Daily, within 10 business days after the trading date	EMC	By CSV reports	We propose to align this with the market rule changes to enable electricity imports trial which took effect from 26 January 2022.

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 organisation)</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
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