

## **CATALOGUE OF DATA 2023**

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.

In accordance with section 4.3.6 of Chapter 3 of the Market Rules, the MAU, under the supervision and direction of the MSCP, has re-evaluated and proposed modifications to the Catalogue of Data as the Panel deemed appropriate.

The proposed updated Catalogue of Data was published by the Energy Market Company Pte Ltd for public comment on 19 December 2022. The MSCP has considered all comments submitted and has provided responses accordingly. The Catalogue of Data, where appropriate, has been modified based on the comments received through the consultation with market participants, service providers and all other interested parties.

The MSCP hereby adopts the Catalogue of Data attached, effective from 1 February 2023.

**1 February 2023**

**Catalogue of Data 2023**  
**National Electricity Market of Singapore**  
**Effective from 1 February 2023**

Items marked “\*” are considered confidential information

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining
Generation Registered Facility Characteristics Data	1	Maximum generation capacity of each generation registered facility	Once and within 3 business days upon change	EMC	EMC website
	2*	Maximum ramp-up rate of each generation registered facility	Once and within 3 business days upon change	EMC	By e-mail
	3*	Maximum ramp-down rate of each generation registered facility	Once and within 3 business days upon change	EMC	By e-mail
	4	Maximum reserve capacity (primary and contingency) of each generation registered facility	Once and within 3 business days upon change	EMC	EMC website
	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 registered facility was first commissioned	Once	EMC	By e-mail
	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	13	Maximum generation capacity of each generation settlement facility	Once and within 3 business days upon change	EMC	EMC website

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining
Facility <sup>1</sup> Characteristics Data	14*	Maximum ramp-up rate of each generation settlement facility	Once and within 3 business days upon change	EMC	By e-mail
	15*	Maximum ramp-down rate of each generation settlement facility	Once and within 3 business days upon change	EMC	By e-mail
	16*	Fuel type of each generation settlement facility	Once and within 3 business days upon change	Generation Licensee	By e-mail
	17	Date the generation settlement facility was first commissioned	Once	EMC	By e-mail
Load Registered Facility Characteristics Data	18	Maximum load curtailment capacity of each load registered facility	Once and within 3 business days upon change	EMC	EMC website
	19*	Maximum ramp-up rate of each load registered facility	Once and within 3 business days upon change	EMC	By e-mail
	20*	Maximum ramp-down rate of each load registered facility	Once and within 3 business days upon change	EMC	By e-mail
	21	Maximum reserve capacity (primary and contingency) of each load registered facility	Once and within 3 business days upon change	EMC	EMC website
	22	Date the load registered facility was first commissioned	Once	EMC	By e-mail
Import Registered Facility Characteristics	23	Maximum import capacity of each import registered facility	Once and within 3 business days upon change	EMC	EMC website
	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
	25	Annual planned outage plan of each import registered facility	Once and within the next business day upon change	PSO	EMC website
	26*	Total forced outage duration (past quarter) of each import registered facility	Quarterly	PSO	By e-mail
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	Proposed transmission line de-rating advice	Upon occurrence, by the next business day	PSO	By e-mail
	29	Proposed transmission line maintenance outage programme	Daily, by the next business day	PSO	EMC website

<sup>1</sup> Includes Intermittent Generation Facility.

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining
Supply Data	30*	Occurrences of discretionary dispatch action taken by PSO	Upon occurrence, by the next business day	PSO	By e-mail
	31*	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
	32*	Offers/bids of energy, reserve and regulation submitted by all market participants	Daily	EMC	By CSV reports
	33*	Offers/bids submitted after gate closure	Daily, by the next business day	EMC	By CSV reports
	34*	Scheduled dispatch quantities of energy, reserve and regulation by generation/load/import registered facility and market participant	Daily, within 6 business days after the trading day	EMC	By CSV reports
	35*	Maximum target, minimum target and initial output of each scheduled generation/import registered facility	Daily	EMC	By CSV reports
	36*	Metered generation quantity by generation registered facility/market participant	Daily, within 11 business days after the trading day	EMC	By CSV reports
	37	Generation/import registered facility de-rating notification	Upon occurrence, by the next business day	PSO	By e-mail
	38	Security constraints (location, timing, volume, cause)	Upon occurrence, by the next business day	PSO	EMC website
	39	Load shed forecast	Upon occurrence, by the next business day	PSO	EMC website
	40	Load shed advisory notice	Upon occurrence, by the next business day	PSO	EMC website
Demand Data	41*	Intertie schedule	Daily, within 6 business days after the trading day	EMC	By CSV reports
	42	Pre-dispatch load forecast	Daily, within 6 business days after the trading day	EMC	By CSV reports
	43	Real-time load forecast	Daily, within 6 business days after the trading day	EMC	By CSV reports
Pricing Data	44	Actual system demand (settlement ready metering data)	Daily, within 11 business days after the trading day	EMC	By CSV reports
	45	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
	46	Half-hourly Uniform Singapore Energy Price ("USEP")	Daily, within 6 business days after the trading day	EMC	By CSV reports

Type of Data	No.	Description	Frequency of Collection	Source	Means of Obtaining
	47	Half-hourly regulation price	Daily, within 6 business days after the trading day	EMC	By CSV reports
	48	Half-hourly reserve prices: primary and contingency	Daily, within 6 business days after the trading day	EMC	By CSV reports
	49	Uplift charges	Daily, within 11 business days after the trading day	EMC	By CSV reports
	50*	Pre-dispatch schedules	Daily, within 6 business days after the trading day	EMC	By CSV reports
	51*	Real-time dispatch schedules	Daily, within 6 business days after the trading day	EMC	By CSV reports
	52	Half-hourly Wholesale Electricity Price ("WEP")	Daily, within 11 business days after the trading day	EMC	By CSV reports
Other Data	53	Advisory notices reported by frequency, time, day and type	Daily, within 6 business days after the trading day	EMC	EMC website
	54*	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
	55*	Information on total cost and providers of contracts of ancillary services	Within 10 business days of entry into new contracts	EMC	By CSV reports
	56*	Total turnover in the energy market (in MWh and \$)	Monthly, within 11 business days after month end	EMC	By CSV reports
	57*	Information on issuance and satisfaction of margin calls	Upon occurrence, on the same business day	EMC	By e-mail
	58*	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
	59*	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
	60*	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