

## **CATALOGUE OF DATA**

Pursuant to section 4.3.3 of Chapter 3 of the Singapore Electricity Market Rules, the Market Surveillance and Compliance Panel (“MSCP”) has adopted the catalogue of data attached.

As required under section 4.3.2 of Chapter 3, the catalogue of data was developed by the Market Assessment Unit (“MAU”), under the supervision and direction of the MSCP. It is a detailed catalogue of all of 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 after taking into account 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.

**29 August 2003**

**Catalogue of Data  
Singapore Wholesale Electricity Market  
Effective From 1 October 2003**

**Items marked "\*" are considered confidential information**

Type of data		Description	Frequency of collection	Source	Means of obtaining
Generation Registered Facility Characteristics Data	1*	Maximum installed capacity of each generation registered facility	Once and within 3 business days upon change	PSO	By fax
	2*	Maximum generation capacity of each generation registered facility	Once and within 3 business days upon change		
	3*	Maximum ramp-up rate of each generation registered facility	Once and within 3 business days upon change		
	4*	Maximum ramp-down rate of each generation registered facility	Once and within 3 business days upon change		
	5*	Maximum reserve capacity (primary, secondary and contingency) of each generation registered facility	Once and within 3 business days upon change		
	6*	Maximum combined generation capacity and reserve capacity of each generation registered facility	Once and within 3 business days upon change		
	7*	Maximum regulation capacity of each generation registered facility	Once and within 3 business days upon change		
	8*	Maximum energy output at which AGC can operate for each generation registered facility	Once and within 3 business days upon change		
	9*	Minimum energy output at which AGC can operate for each generation registered facility	Once and within 3 business days upon change		
	10*	Fuel type of each generation registered facility	Once and within 3 business days upon change		
	11	Year the generation registered facility was first commissioned	Once	Generation Licensee	By E-mail
	12*	Total annual forced outage hours (past three years) of each generation registered facility	Once		
	13*	Total annual planned outage hours (past three years) of each generation registered facility	Once		
	14*	Total annual overhaul hours (past three years) of each generation registered facility	Once		
	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		

Type of data		Description	Frequency of collection	Source	Means of obtaining
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
	17	Transmission line forced outage	Upon occurrence, by the next business day		By fax
	18	Proposed transmission line de-rating advice	Upon occurrence, by the next business day		
	19	Proposed transmission line maintenance outage programme	Daily, by the next business day		EMC website
Supply Data	20*	Occurrences of discretionary dispatch action taken by PSO	Upon occurrence, by the next business day	PSO	By fax
	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
	22*	Offers exceeding offer change limits (offer variations and revisions to standing offers)	Daily, by the next business day		
	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
	24*	Maximum target, minimum target and initial output of each scheduled generation registered facility	Daily, within 6 business days after the trading day		
	25*	Metered generation quantity by generation registered facility/market participant	Daily, within 11 business days after the trading day		
	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
	27	Total generation capacity under maintenance (planned outages and annual overhaul)	Daily, by the next business day		
	28	Short-term planned outage by generation registered facility	Upon occurrence, by the next business day		
	29	Forced outage by generation registered facility	Upon occurrence, by the next business day		By fax
	30	Generation registered facility de-rating notification	Upon occurrence, by the next business day		
	31	Security constraints (location, timing, volume, cause)	Upon occurrence, by the next business day		
	32	Load shed forecast	Upon occurrence, by the next business day		By E-mail
	33	Load shed advisory notice	Upon occurrence, by the next business day		
	34*	Intertie submission information	Upon occurrence, by the next business day		By fax
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	

Type of data		Description	Frequency of collection	Source	Means of obtaining
Demand Data	36	Pre-dispatch load forecast	Daily, within 6 business days after the trading day	EMC	By CSV reports
	37	Real-time load forecast	Daily, within 6 business days after the trading day		
	38	Actual system demand (settlement ready metering data)	Daily, within 11 business days after the trading day		
	39	Historical system demand (past three years)	Once		By E-mail
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
	41	Half hourly Uniform Singapore Energy Price ("USEP")	Daily, within 6 business days after the trading day		
	42	Half hourly regulation price	Daily, within 6 business days after the trading day		
	43	Half hourly reserve prices: primary, secondary and contingency	Daily, within 6 business days after the trading day		
	44	Uplift charges	Daily, within 11 business days after the trading day		
	45*	Pre-dispatch schedules	Daily, within 6 business days after the trading day		
	46*	Real-time dispatch schedules	Daily, within 6 business days after the trading day		
47	Wholesale price (i.e. the approximate wholesale price that retailers pay for electricity) in \$/MWh	Monthly, within 6 business days after month end			
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
	49*	Information on issuance of notice of default and exercise of rights of credit support	Upon occurrence, by the next business day		
	50*	Information on total cost and providers of contracts of ancillary services	Within 10 business days of entry into new contracts		
	51*	Total turnover in the energy market in MWh and \$	Monthly, within 11 business days after month end		