

GLOSSARY

A

AGC – automatic generator control
AFP – allocated regulation price

C

CCGT – combined cycle gas turbine

E

EMA – Energy Market Authority
EMC – Energy Market Company Pte Ltd

H

HEUC – hourly energy uplift charge
180 cst HSFO – high sulphur fuel oil 180 centistoke

L

LRMC – long run marginal cost

M

Market Rules – Singapore electricity market rules
MAU – Market Assessment Unit
MCE – market clearing engine
MEUC – monthly energy uplift charge
MSCP – Market Surveillance and Compliance Panel
MSSL – market support services licensee
MOS – market outlook scenarios

N

NEA – National Environment Agency
NEMS – National Electricity Market of Singapore

O

OCGT – open cycle gas turbine
OT – other facilities (i.e. incineration plants)

P

PDS – pre-dispatch schedules
PowerSeraya – PowerSeraya Ltd
PSO – Power System Operator

GLOSSARY

S

SembCorp Cogen - SembCorp Cogen Pte Ltd

Senoko Power - Senoko Power Ltd

SP Services – SP Services Ltd

SRMC - short run marginal cost

ST - steam turbine

STS - short-term schedules

T

Tuas Power - Tuas Power Ltd

U

USEP - uniform Singapore energy price

V

VCHP – vesting contract hedge price

VCSC – vesting contract settlement credit

VHP – vesting hedge proportion

W

WEP – wholesale electricity price

General

Data

All real-time and forecast prices and settlement data are provided by *EMC*.

Vesting contract hedge prices are computed by *SP Services* based on a formula set by the *EMA*.

Fuel oil data is based on the monthly *Oil Market Report* published by the International Energy Agency. A copy of the report is available from www.oilmarketreport.org.

Data for forecast demand and outages are compiled from reports prepared by the *PSO*, including advisory notices.

Metered energy quantities are supplied by *SP Services* as the *MSSL*. All metered data used in this report is final data, derived after any settlement reruns.

Throughout this document, the demand figures are based on the forecast demand supplied by the *PSO*, except where metered energy quantities are indicated.

Definition of Peak, Shoulder and Off-peak Periods*

	Sunday/PH	Weekday	Saturday
Peak	-	Period 18-41	-
Shoulder	Period 22-34 Period 38-47	Period 15-17 Period 42-48	Period 1 Period 17-48
Off-peak	Period 1-21 Period 35-37 Period 48	Period 1-14	Period 2-16

* Source: *MSSL*

Period of Review

This report reviews activities over the period of one quarter. The periods under consideration are denoted as follows:

Q1: 1 April to 30 June

Q2: 1 July to 30 September

Q3: 1 October to 31 December

Q4: 1 January to 31 March

Quarter-on-Quarter (qoq) – Indicates changes between one quarter and the previous quarter.

Year-over-Year (yoy) – Compares the results of the quarter of one year to the same quarter of the previous year.

Supply Indices

Capacity ratio measures the scheduled (by the MCE) output of energy, reserve and regulation as a ratio of a generation registered facility's maximum generation capacity at a given time.

Supply cushion is the ratio between (a) the supply and demand gap (i.e. difference between total offered volume and demand) and (b) supply. This index measures supply adequacy. It indicates the level of unused capacity that was offered but not scheduled, and could be called up if required. The total offered volume refers to the total amount of energy offered by all generation registered facilities. Demand refers to the demand forecast by the *PSO* used to determine the real-time dispatch schedule for energy.

Market share is computed based on the generation output of each company. The maximum capacity for each generation company is the registered maximum capacity in the standing data.

Outages of generation registered facilities are either planned, unplanned or forced:

- (a) planned outage is defined in the System Operation Manual to "include both the Annual Outage plan for overhaul, retrofitting or inspection and Short-term Outage Plan for urgent repair or maintenance";
- (b) unplanned outage is defined in the System Operation Manual as "the case in which the generation licensee has to carry out immediate rectification works and has less than 1 business day to inform the *PSO* before intentional de-synchronisation of the generation unit"; and
- (c) forced outage is defined in the *Market Rules* as "an unanticipated intentional or automatic removal from service of equipment or the temporary de-rating of, restriction of use or reduction in performance of equipment".

Demand Indices

STS are updated every half-hour and cover a time horizon of six hours after the period in which the relevant *STS* is published. The objective of implementing the *STS* is to provide more updated information to market participants and to enable market participants to make better informed and timely decisions.

PDS are updated every two hours and cover a time horizon of between 12 and 36 hours after the period in which the relevant *PDS* is published.

MOS are released daily and cover a six-day horizon.

Vesting Contracts

The *VCHP* is calculated by the *MSSL* every three months. It is determined using the long run marginal cost of the most efficient technology in the Singapore power system, i.e. the *CCGT*. The *EMC*'s settlement system uses the *VCHP* to settle the vesting quantity between the *MSSL* and the generation companies.

The *VHP* is the vesting contract hedge quantity allocated to contestable consumers.