

MSCP Market Watch

Second Quarter (Apr-Jun) 2019

Issue 52

Table 1: Indicators of Market Performance

	2018 Q2	2019 Q1	2019 Q2
Price Indicators			
<i>Energy (\$/MWh)</i>			
- USEP	108.87	113.76	94.25
- WEP	109.09	114.22	94.61
- Allocated Vesting Price	155.31	168.40	154.24
- LNG Vesting Price	158.57	168.95	154.77
- Balance Vesting Price	147.62	165.17	151.79
<i>Ancillary Services (\$/MWh)</i>			
- Primary Reserve	0.34	0.40	0.03
- Contingency Reserve	13.94	25.73	5.68
- Regulation	21.02	29.60	8.43
<i>Fuel Oil Price (US\$/barrel)</i>	74.50	70.19	71.14
Demand Indicators			
<i>Forecast Demand (MW)</i>			
- Average	5,981	5,901	6,086
- Peak	7,071	6,914	7,195
<i>Metered Energy (MW)</i>			
- Average	5,866	5,785	5,975
- Peak	7,031	6,835	7,092
Supply Indicators			
<i>Average Supply (MW)</i>	7,992	7,962	8,298
<i>Supply Cushion (%)</i>	25.16	25.88	26.66
<i>Capacity Ratio (%)</i>			
- CCGT	63.19	62.07	63.95
- OCGT	0.02	1.05	0.00
- OT	45.67	48.64	48.03
- ST	0.12	0.13	0.14
<i>Total Outages (MWh Cumulative)</i>			
- Planned	2,443,119	3,224,784	3,100,222
- Forced	12,325	118,040	150,124
<i>Offers made at or below \$100/MWh (%)</i>	76.59	76.31	77.04

Market Performance

The Uniform Singapore Energy Price (USEP) decreased 17.15 percent from \$113.76/MWh in Q1 2019 to \$94.25/MWh in Q2 2019. The Wholesale Electricity Price (WEP) also decreased 17.17 percent to \$94.61/MWh.

All vesting prices decreased. The Allocated Vesting Price declined the most by 8.41 percent to \$154.24/MWh in Q2 2019.

Prices of all ancillary services decreased. Regulation price decreased most by \$21.17/MWh from \$29.60/MWh in Q1 2019 to \$8.43/MWh in Q2 2019.

The Fuel oil price increased 1.35 percent from US\$70.19/barrel in Q1 2019 to US\$71.14/barrel this quarter.

Average demand increased 3.13 percent to 6,086 MW. Average supply also increased 4.23 percent to 8,298 MW. The supply cushion, which measures supply adequacy, went up by 0.78 percentage points from 25.88 percent in Q1 2019 to 26.66 percent in Q2 2019.

In Q2 2019, the capacity ratios of CCGT and ST units increased 1.89 and 0.01 percentage points respectively, while those of OCGT and OT units decreased slightly by 1.05 and 0.60 percentage points.

Planned outage volume dropped 3.86 percent to 3,100,222 MWh in Q2 2019. Forced outage volume increased 27.18 percent to 150,124 MWh.

Overall, the percentage of offers made at or below \$100/MWh increased 0.73 percentage point to 77.04 percent in Q2 2019.

The Market Surveillance and Compliance Panel (MSCP) issued five rule breach determinations in Q2 2019 against:

- i. Singapore Refining Company Private Limited for its failure to comply with the declared quantity rules in September and November 2018;
- ii. Energy Market Company Pte Ltd for its failure to use the most current valid information on the dispatch related data received from the PSO from 1 January to 7 January 2019;
- iii. Shell Eastern Petroleum (Pte) Ltd for its failure to comply with gate closure rules on 6 October 2018;
- iv. ExxonMobil Asia Pacific Pte. Ltd. for its failure to comply with gate closure rules on 8 December 2018; and
- v. Red Dot Power Pte. Ltd. for its restoration of interrupted load before PSO gave clearance on 5 January 2019.

Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

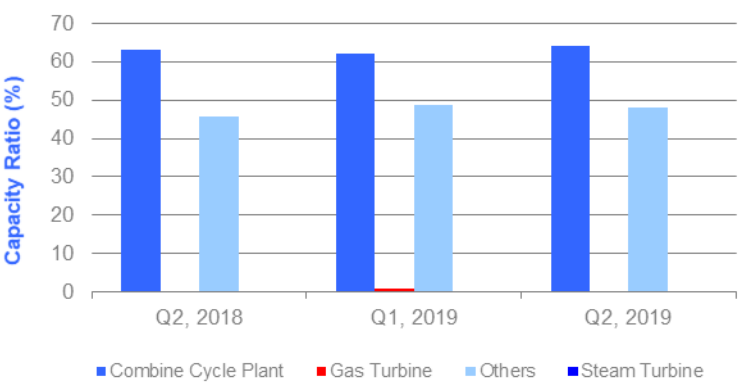


Chart 2: Relationship between USEP and Energy Supply Cushion - Q2 2019

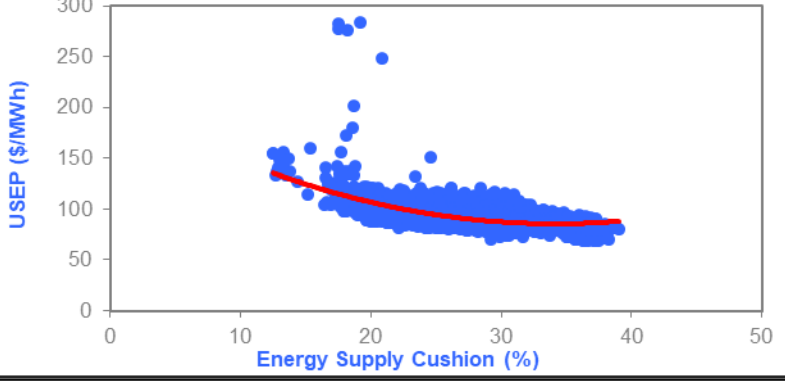
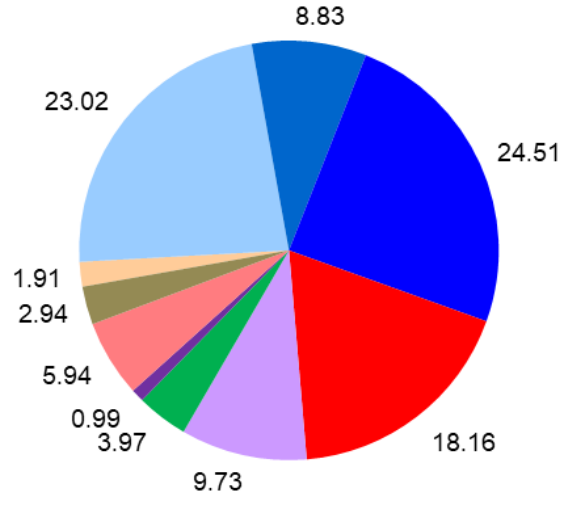
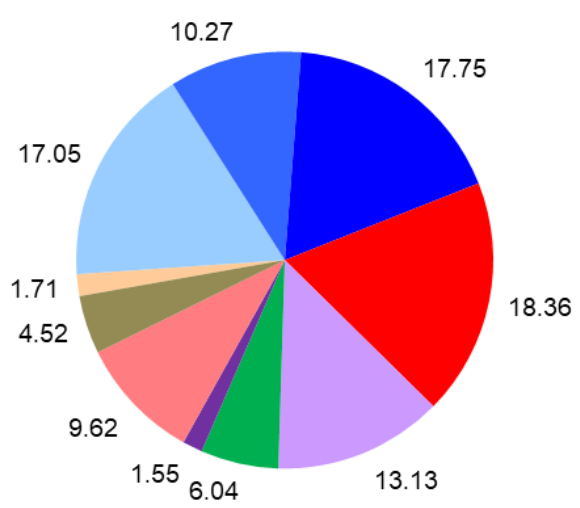


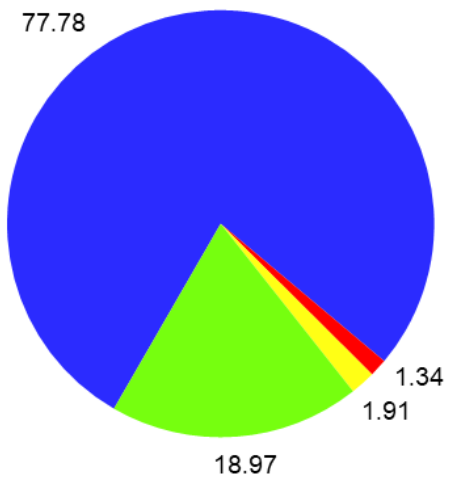
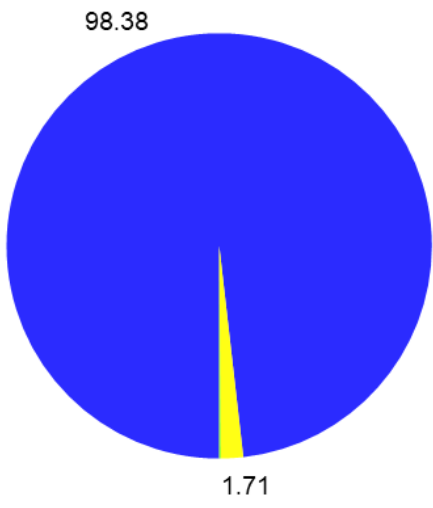
Chart 3: Comparison of Average Market Share by Generation Company Q2 2019



Based on Metered Energy Quantities (%)

Based on Maximum Generation Capacity (%)

Chart 4: Comparison of Average Market Share by Generation Type Q2 2019



Based on Metered Energy Quantities (%)

Based on Maximum Generation Capacity (%)

- Combine Cycle Plant
- Gas Turbine
- Others
- Steam Turbine

Demand Indicators

Chart 5: Monthly Load Forecast Variation

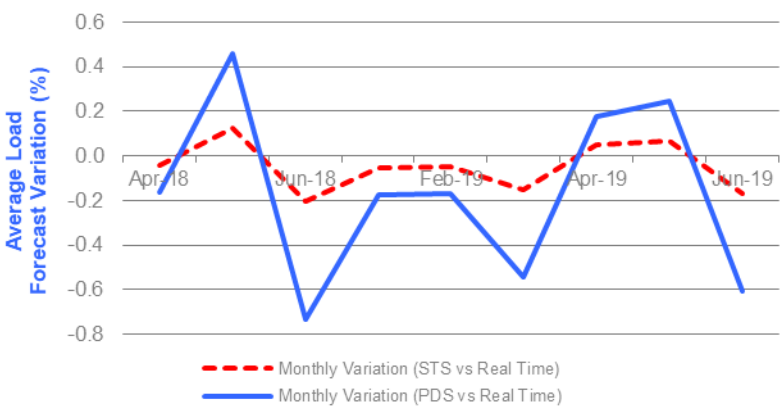
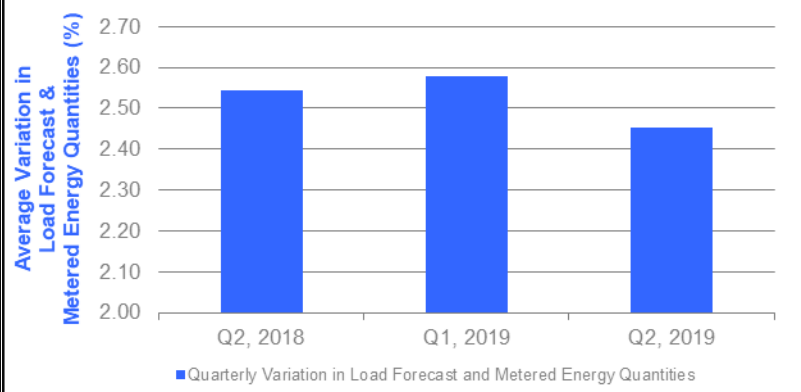


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



Energy Prices

Chart 7: WEP vs Vesting Contract Hedge Price (VCHP)

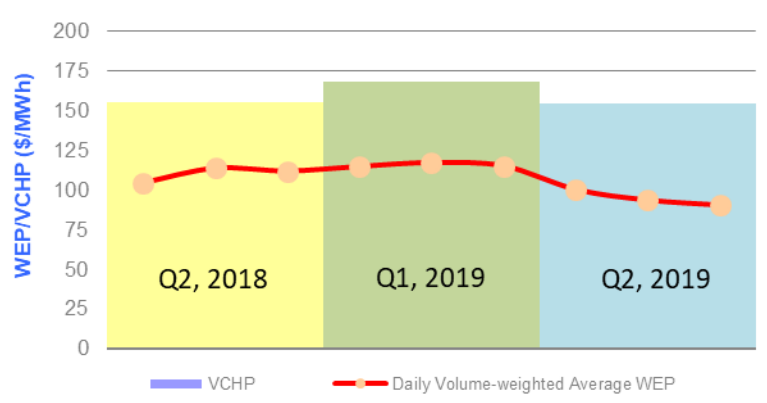


Chart 8: Comparison of Metered Energy Quantities

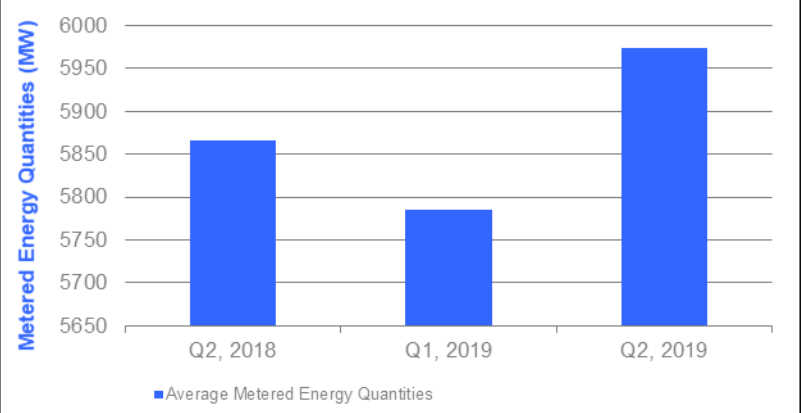


Chart 9: Percentage of Hours when WEP Falls into a Particular Price Range

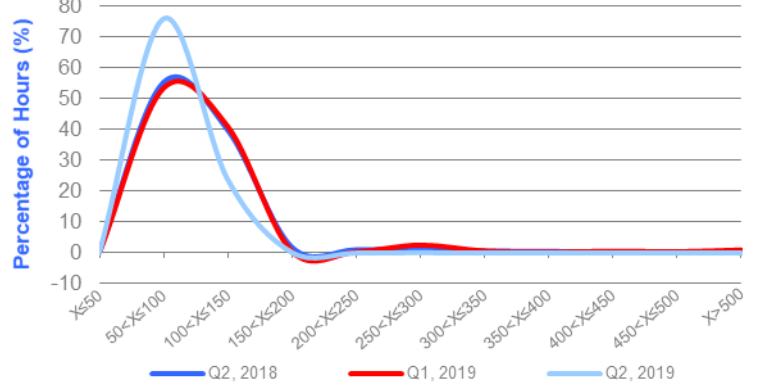


Chart 10: Percentage of Metered Energy Quantities when WEP Falls into a Particular Price Range

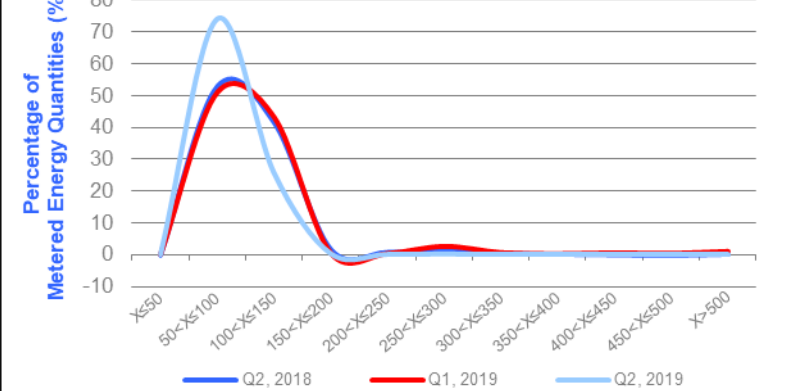


Chart 11: Correlation between WEP & Metered Energy Quantities

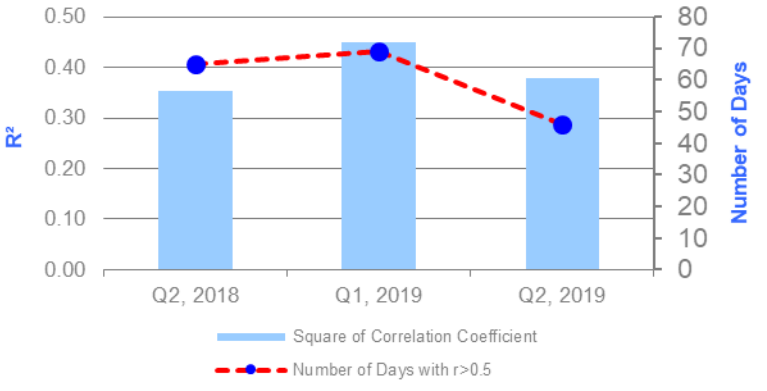
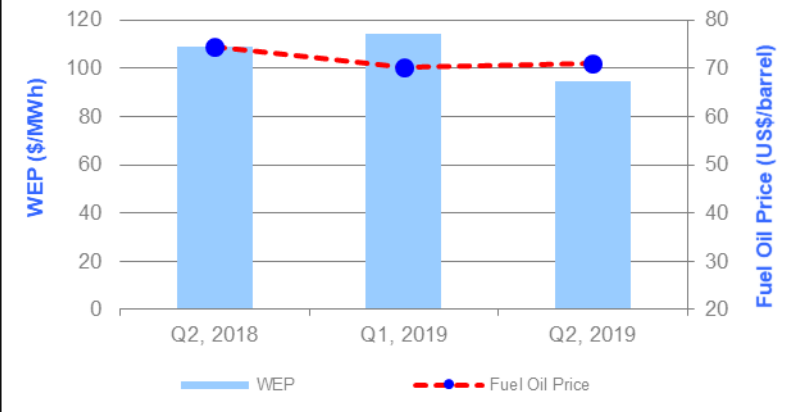


Chart 12: WEP vs Fuel Oil Price



Ancillary Services Prices

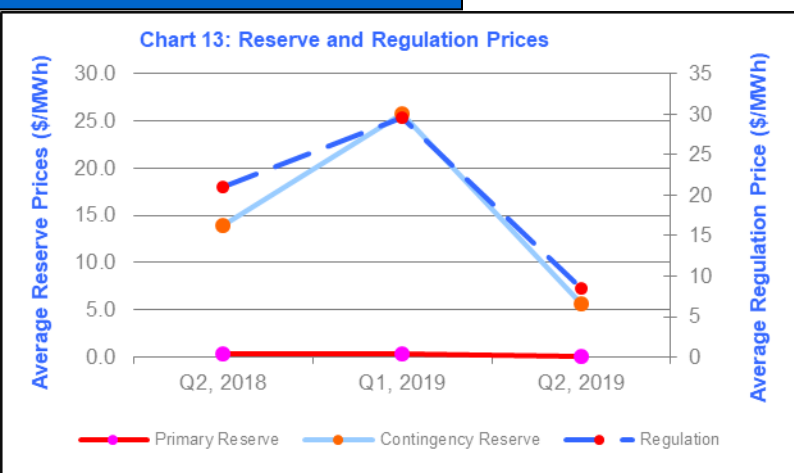


Table 2: Compliance Statistics for Q2 2019

No. of cases of potential rule breaches	115
Self-reports	2
Referrals/Complaints	113
MSCP initiatives	0
No. of determinations	120
Rule breach	11
No rule breach	109
No further action	0
Enforcement	11
No. of cases with enforcement action	
-Financial penalty	9
-Letter of non-compliance	2
-Suspension order	0
Total amount of financial penalties	\$18,000
Total amount of costs	\$9,050

A User Guide on terms used in this publication is available for download from the Energy Market Company website at www.emcsg.com.

The Market Surveillance and Compliance Panel is comprised of the following persons:

- *T P B Menon, Chair*
- *Lee Keh Sai*
- *Philip Chua*
- *Professor Euston Quah*
- *Professor Walter Woon*

It is supported by the Market Assessment Unit of Energy Market Company.