

# MSCP Market Watch

First Quarter (Jan-Mar) 2018

Issue 47

Table 1: Indicators of Market Performance

	2017		2018
	Q1	Q4	Q1
<b>Price Indicators</b>			
<i>Energy (\$/MWh)</i>			
- USEP	81.91	82.94	96.33
- WEP	82.13	83.27	96.60
- Allocated Vesting Price	134.93	137.29	150.65
- LNG Vesting Price	137.66	139.78	154.09
- Balance Vesting Price	128.05	131.17	143.72
<i>Ancillary Services (\$/MWh)</i>			
- Primary Reserve	0.43	0.24	0.33
- Secondary Reserve	0.71	N.A.*	N.A.*
- Contingency Reserve	8.49	4.78	11.38
- Regulation	9.12	12.71	17.35
<i>HSFO Spot (US\$/barrel)</i>	54.34	61.73	64.36
<b>Demand Indicators</b>			
<i>Forecast Demand (MW)</i>			
- Average	5,596	5,751	5,693
- Peak	6,754	6,789	6,789
<i>Metered Energy (MW)</i>			
- Average	5,505	5,683	5,587
- Peak	6,717	6,803	6,739
<b>Supply Indicators</b>			
<i>Average Supply (MW)</i>	8,048	8,050	7,668
<i>Supply Cushion (%)</i>	30.46	28.55	25.76
<i>Capacity Ratio (%)</i>			
- CCGT	59.92	60.62	60.13
- OCGT	0.01	0.00	0.06
- OT	47.35	50.27	49.90
- ST	0.11	0.10	0.11
<i>Total Outages (MWh Cumulative)</i>			
- Planned	2,076,212	2,440,247	2,796,935
- Forced	9,033	37,507	35,212
<i>Offers made at or below \$100/MWh (%)</i>	74.27	77.18	79.25

## Market Performance

The Uniform Singapore Energy Price (USEP) increased 16.15 percent from \$82.94/MWh in Q4 2017 to \$96.33/MWh in Q1 2018. The Wholesale Electricity Price (WEP) also increased 16.01 percent to \$96.60/MWh.

All vesting prices rose. The LNG Vesting Price showed the largest change, going up 10.24 percent to \$154.09/MWh in Q1 2018.

Prices of all ancillary services increased. Contingency reserve price increased 137.80 percent from \$4.78/MWh in Q4 2017 to \$11.38/MWh in Q1 2018.

The High Sulphur Fuel Oil (HSFO) spot price increased 4.25 percent from US\$61.73/barrel in Q4 2017 to US\$64.36/barrel this quarter.

Average demand decreased 1.01 percent to 5,693 MW. Average supply also decreased 4.75 percent to 7,668 MW. The supply cushion, which measures supply adequacy, fell 2.79 percentage points from 28.55 percent in Q4 2017 to 25.76 percent in Q1 2018.

In Q1 2018, the capacity ratios of CCGT and OT units decreased while those of OCGT and ST units increased. The capacity ratio of CCGT units showed the largest decrease of 0.50 percentage points; the capacity ratio of OCGT units showed the largest increase of 0.06 percentage point.

Planned outage volume increased 14.62 percent to 2,796,935 MWh in Q1 2018. Forced outage volume declined 6.12 percent to 35,212 MWh.

Overall, the percentage of offers made at or below \$100/MWh increased 2.07 percentage points to 79.25 percent in Q1 2018.

On 6 March 2018, the Market Surveillance and Compliance Panel (MSCP) issued a rule breach determination against Shell Eastern Petroleum (Pte) Ltd for failing to comply with gate closure rules from August 2017 to November 2017.

Please note that all figures are rounded off to two decimal places.

\* With effect from 1 October 2017, the primary reserve and secondary reserve classes were combined into a new single primary reserve class.

# Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

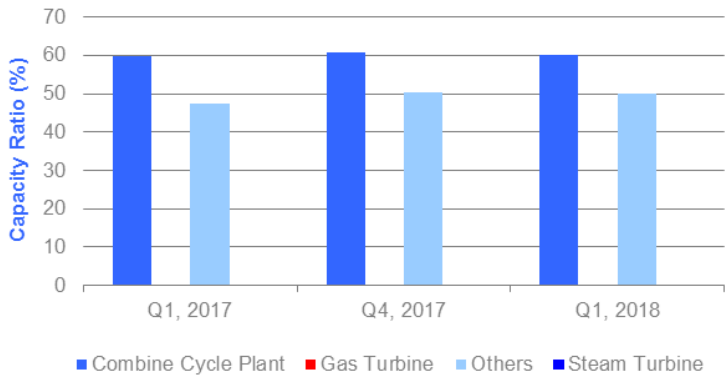


Chart 2: Relationship between USEP and Energy Supply Cushion - Q1 2018

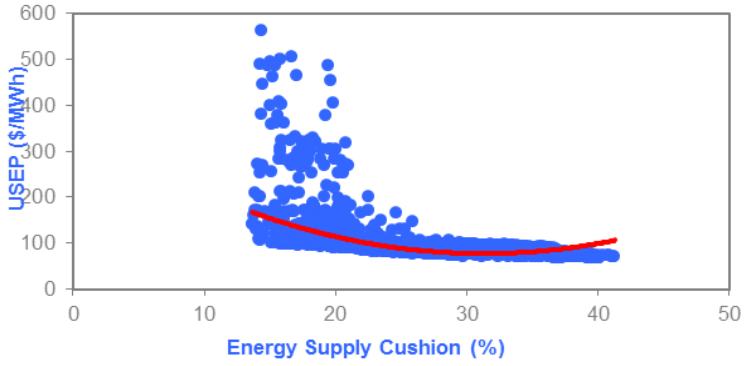


Chart 3: Comparison of Average Market Share by Generation Company Q1 2018

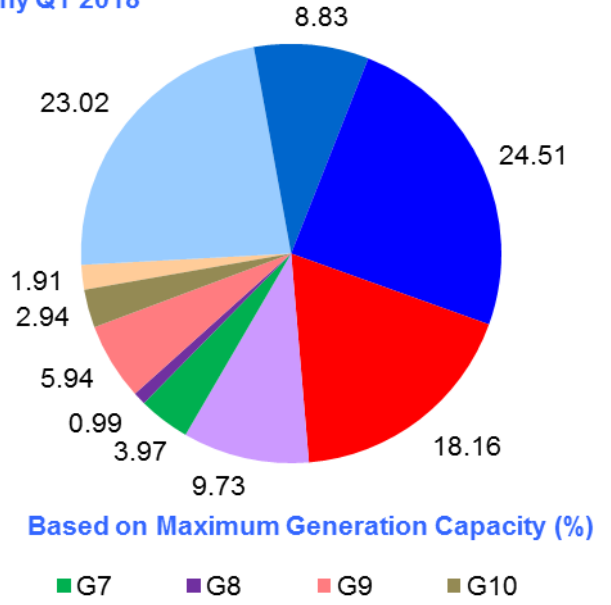
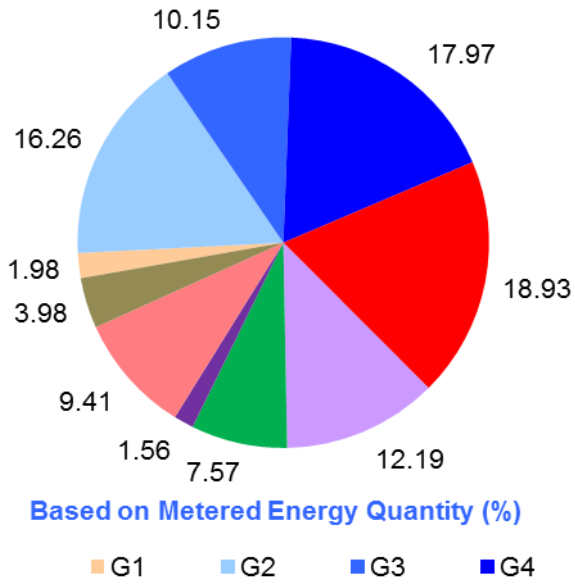
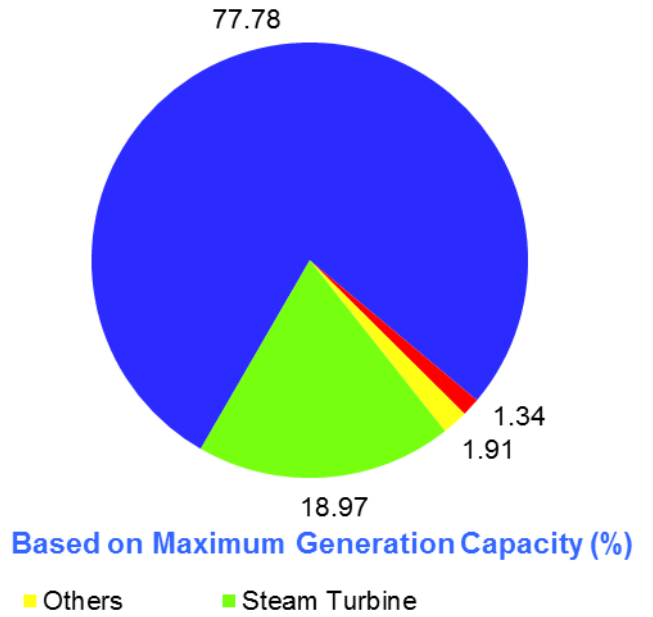
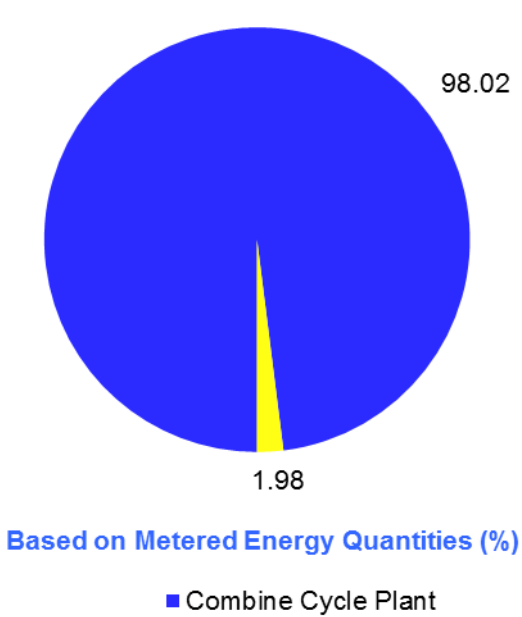


Chart 4: Comparison of Average Market Share by Generation Type Q1 2018



# Demand Indicators

Chart 5: Monthly Load Forecast Variation

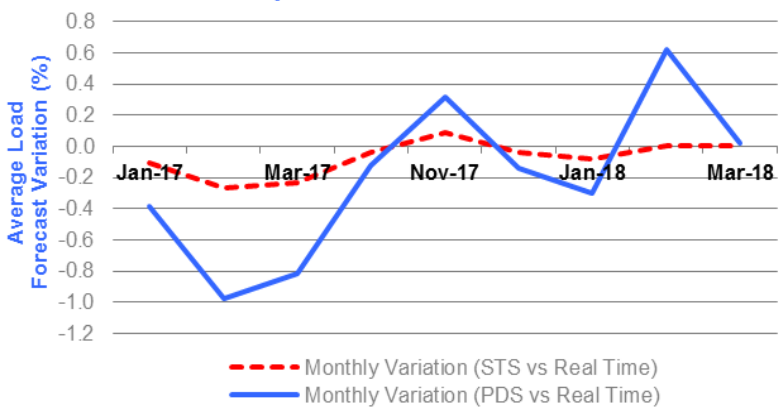
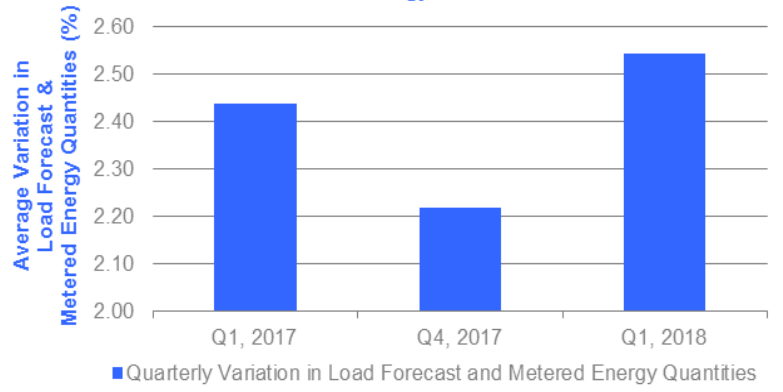


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



# Energy Prices

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

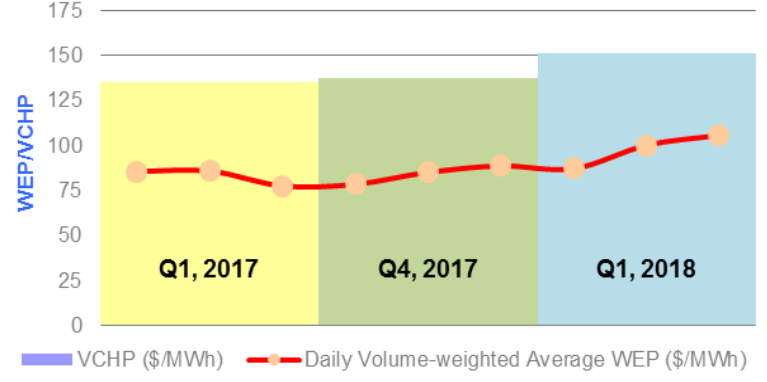


Chart 8: Comparison of Metered Energy Quantities

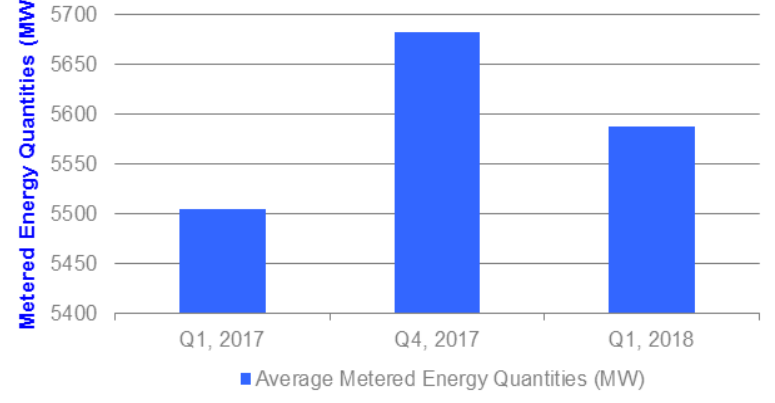


Chart 9: Percentage of Hours when WEP Falls into a Particular Price Range

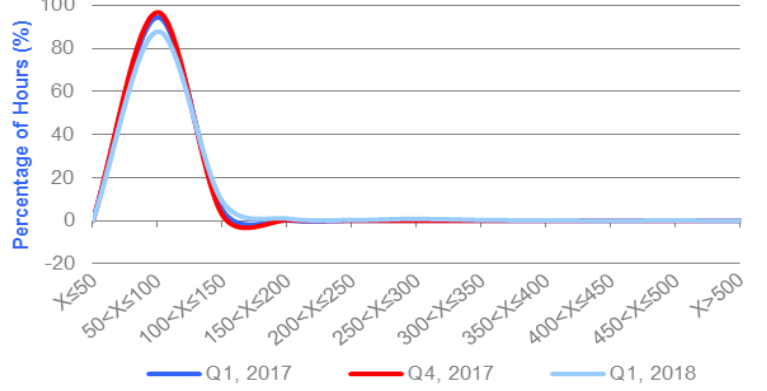


Chart 10: Percentage of Metered Energy Quantities when WEP Falls into a Particular Price Range

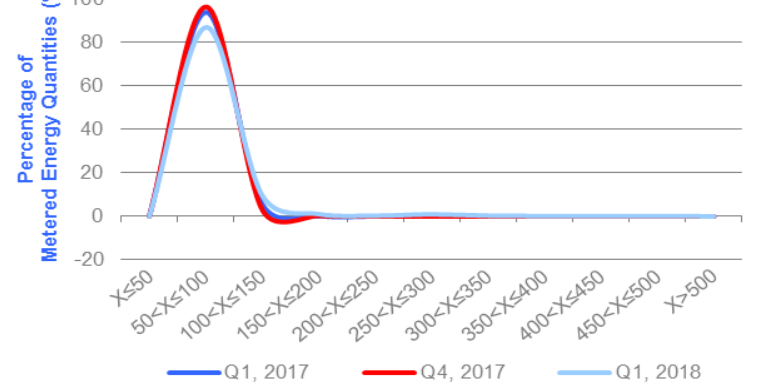


Chart 11: Correlation between WEP & Metered Energy Quantities

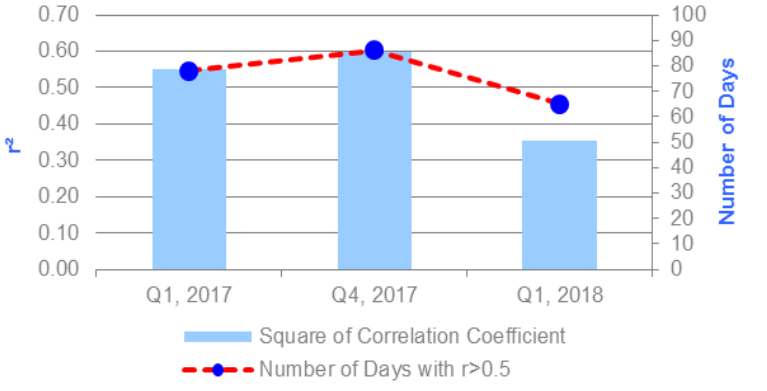
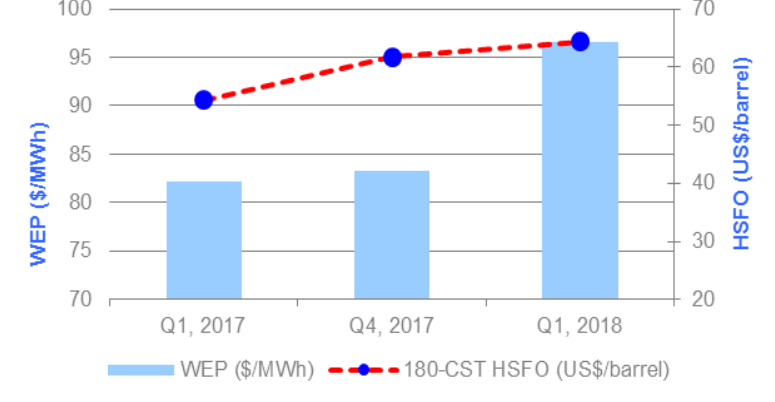
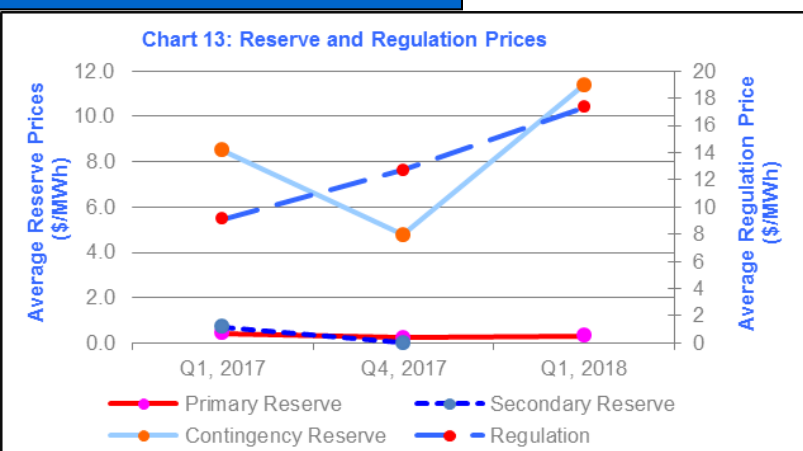


Chart 12: WEP vs High Sulphur Fuel Oil Price (HSFO)





<b>Table 2: Compliance Statistics for Q1 2018</b>	
<b>No. of cases of potential rule breaches</b>	<b>166</b>
Self-reports	2
Referrals/Complaints	164
MSCP initiatives	0
<b>No. of determinations</b>	<b>272</b>
Rule breach	9
No rule breach	259
No further action	4
<b>Enforcement</b>	
No. of cases with enforcement action	1
- Financial penalty	1
- Letter of non-compliance	0
Total amount of financial penalties	\$7,500
Total amount of costs	\$1,500

A User Guide on terms used in this publication is available for download from the Energy Market Company website at [www.emcsq.com](http://www.emcsq.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.*