

# MSCP Market Watch

First Quarter (Jan-Mar) 2017

Issue 43

Table 1: Indicators of Market Performance

	2016		2017
	Q1	Q4	Q1
<b>Price Indicators</b>			
<i>Energy (\$/MWh)</i>			
- USEP	56.26	77.77	81.91
- WEP	56.76	78.05	82.13
- Allocated Vesting Price	127.92	126.44	134.93
- LNG Vesting Price	134.22	130.39	137.66
- Balance Vesting Price	119.48	116.26	128.05
<i>Ancillary Services (\$/MWh)</i>			
- Primary Reserve	0.09	0.11	0.43
- Secondary Reserve	0.26	0.31	0.71
- Contingency Reserve	5.86	5.27	8.49
- Regulation	9.23	8.03	9.12
<i>HSFO Spot (US\$/barrel)</i>	27.53	48.65	54.34
<b>Demand Indicators</b>			
<i>Forecast Demand (MW)</i>			
- Average	5,491	5,710	5,596
- Peak	6,642	6,782	6,754
<i>Metered Energy (MW)</i>			
- Average	5,371	5,596	5,505
- Peak	6,581	6,699	6,717
<b>Supply Indicators</b>			
<i>Average Supply (MW)</i>	7,900	7,907	8,048
<i>Supply Cushion (%)</i>	30.48	27.79	30.46
<i>Capacity Ratio (%)</i>			
- CCGT	59.61	58.63	64.71
- OCGT	0.03	0.08	0.01
- OT	52.14	47.69	47.35
- ST	0.17	0.91	0.11
<i>Total Outages (MWh Cumulative)</i>			
- Planned	2,299,182	2,075,932	2,076,212
- Forced	147,651	95,369	9,033
<i>Offers made at or below \$100/MWh (%)</i>	75.33	76.57	74.27

## Market Performance

The Uniform Singapore Energy Price (USEP) increased 5.33 percent from \$77.77/MWh in Q4 2016 to \$81.91/MWh in Q1 2017. The Wholesale Electricity Price (WEP) increased 5.23 percent from \$78.05/MWh in Q4 2016 to \$82.13/MWh in Q1 2017.

Vesting prices increased across the board in Q1 2017. The balance vesting price showed the largest change; it increased 10.14 percent to \$128.05/MWh in Q1 2017.

All ancillary services saw a price increase this quarter. The largest price increase was observed in primary reserve; by 291.17 percent to \$0.43/MWh.

The High Sulphur Fuel Oil (HSFO) spot price rose 11.69 percent from US\$48.65/barrel in Q4 2016 to US\$54.34/barrel in Q1 2017.

Demand dropped 1.98 percent to 5,596 MW while supply rose 1.78 percent to 8,048 MW. The supply cushion, which measures supply adequacy, increased 2.67 percentage points from 27.79 percent in Q4 2016 to 30.46 percent in Q1 2017.

Changes in the capacity ratios of the various generation types were varied. The capacity ratios of CCGT rose 6.08 percentage points while OCGT, OT and ST fell 0.07, 0.34 and 0.80 percentage point respectively.

There was a slight increase of 0.01 percent in the planned outage volume to 2,076,212MWh in Q1 2017. Forced outage volume decreased 90.53 percent to 9,033MWh this quarter.

Overall, the percentage of offers made at or below \$100/MWh decreased 2.30 percentage points to 74.27 percent in Q1 2017.

The MSCP issued no determination of rule breach in Q1 2017.

# Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

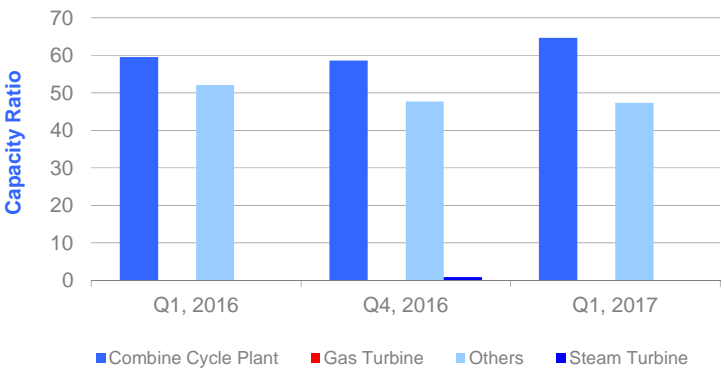


Chart 2: Relationship between USEP and Energy Supply Cushion - Q1 2017

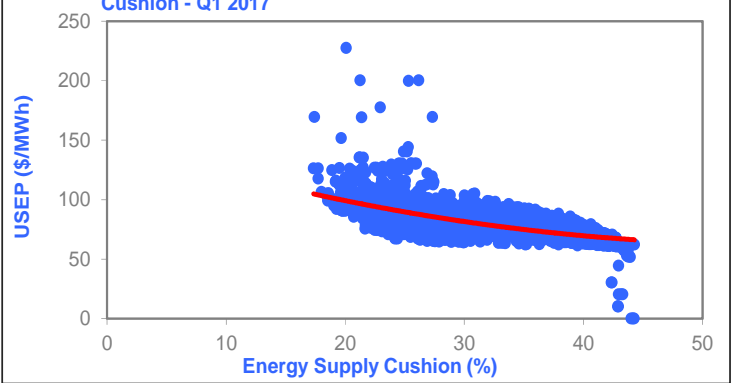


Chart 3: Comparison of Average Market Share by Generation Company Q1 2017

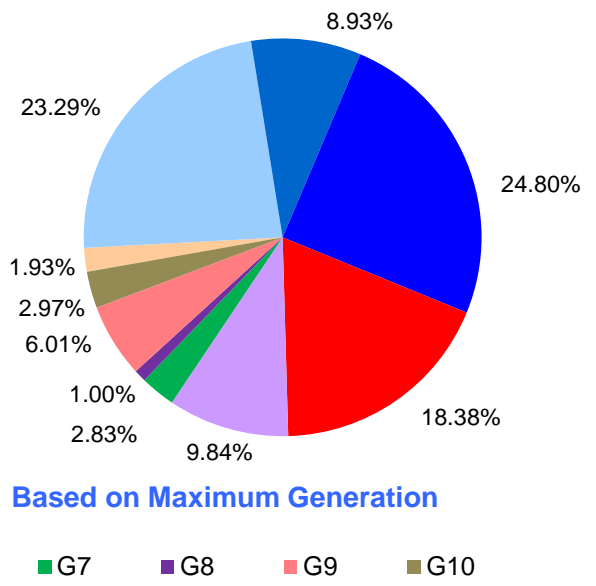
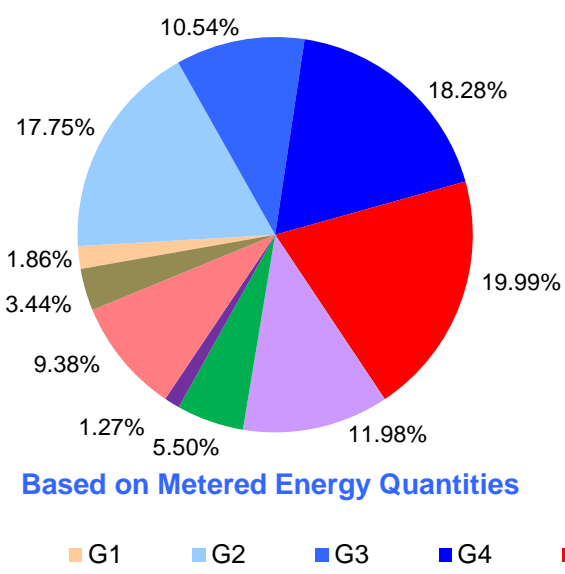
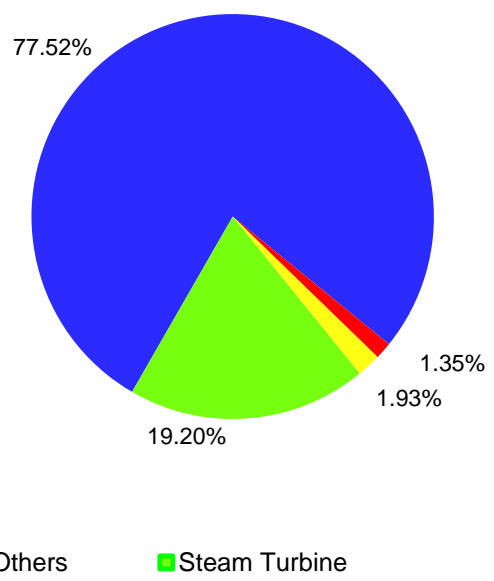
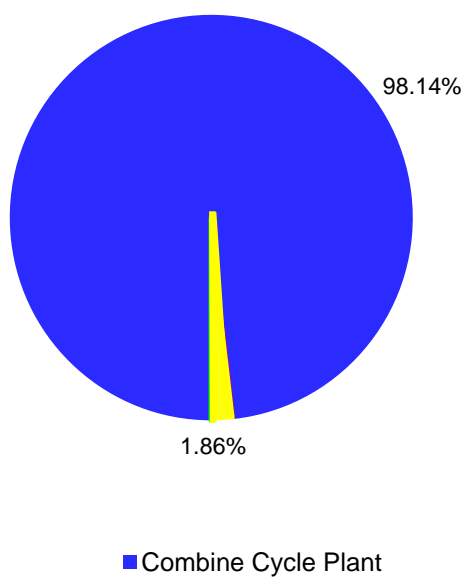


Chart 4: Comparison of Average Market Share by Generation Type Q1 2017



# Demand Indicators

Chart 5: Monthly Load Forecast Variation

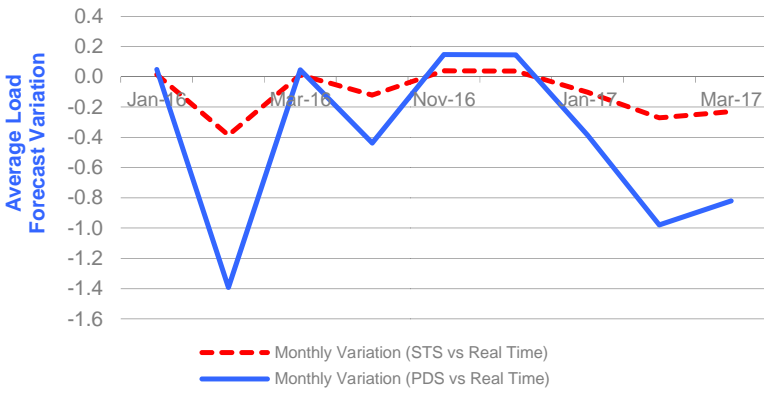
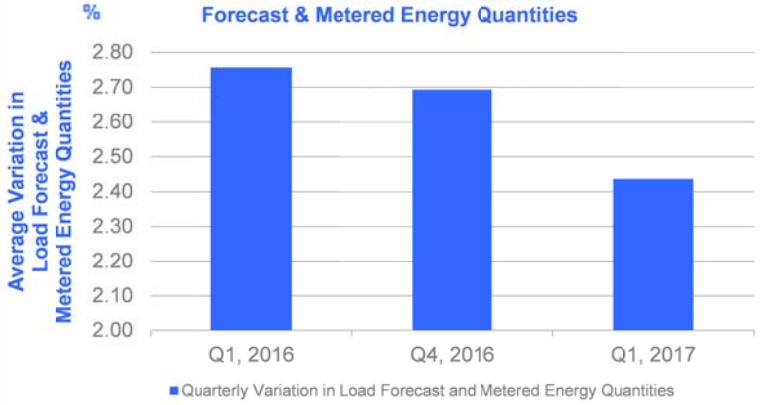


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



# Energy Prices

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

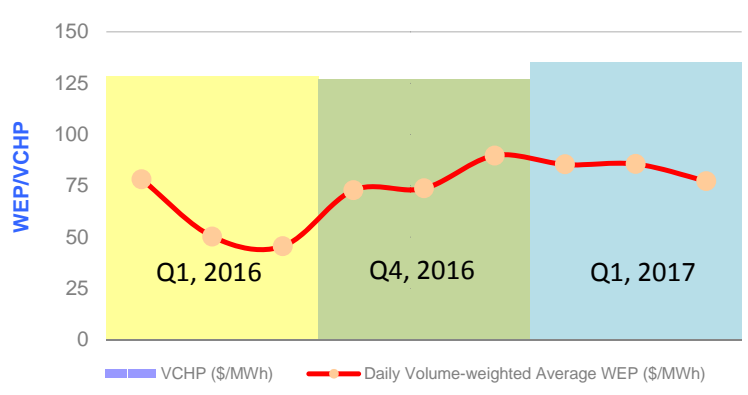


Chart 8: Comparison of Metered Energy Quantities

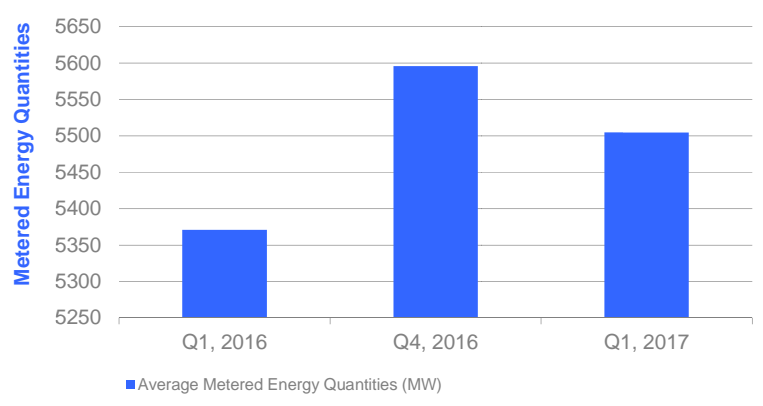


Chart 9: Percentage of Hours when WEP Falls into a Particular Price Range

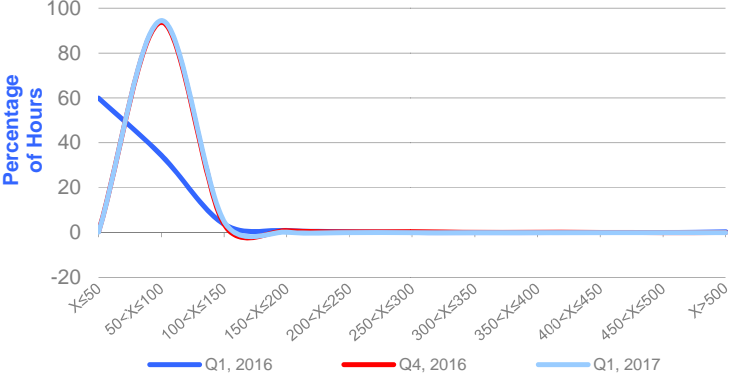


Chart 10: Percentage of Metered Energy Quantities when WEP Falls into a Particular Price Range

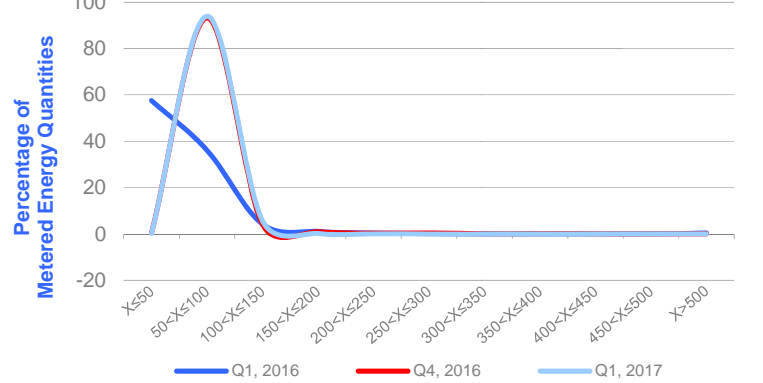


Chart 11: Correlation between WEP & Metered Energy Quantities

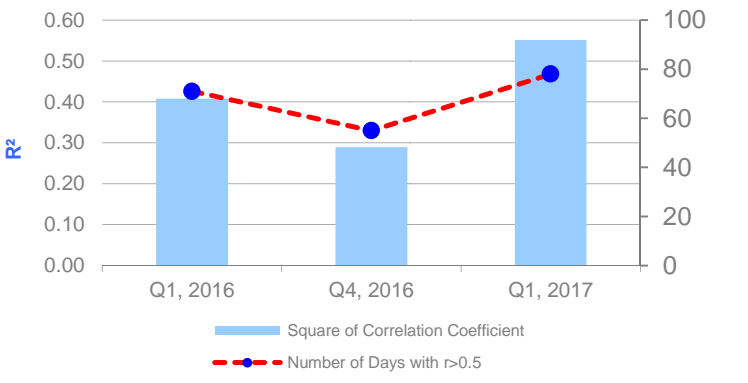
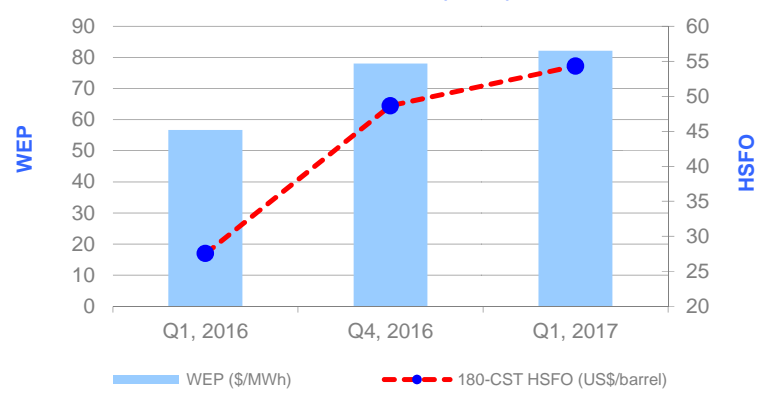


Chart 12: WEP vs Fuel Oil Price (HSFO)



# Ancillary Services Prices

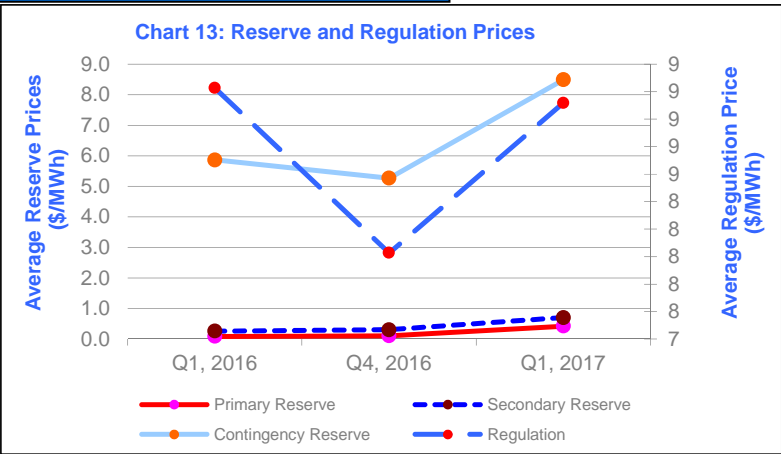


Table 2: Compliance Statistics for Q1 2017	
<b>No. of cases of potential rule breaches</b>	<b>93</b>
Self-reports	0
Referrals/Complaints	93
MSCP initiatives	0
<b>No. of determinations</b>	<b>137</b>
Rule breach	0
No rule breach	136
No further action	1
<b>Enforcement</b>	<b>0</b>
No. of cases with enforcement action	0
-Financial penalty	0
-Letter of non-compliance	0
Total amount of financial penalties	\$0
Total amount of costs	\$0

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