

MSCP Market Watch

Fourth Quarter (Oct-Dec) 2018

Issue 50

Table 1: Indicators of Market Performance

	2017 Q4	2018 Q3 Q4	
Price Indicators			
<i>Energy (\$/MWh)</i>			
- USEP	82.94	112.76	122.89
- WEP	83.27	112.80	123.19
- Allocated Vesting Price	137.29	167.44	172.14
- LNG Vesting Price	139.78	169.99	173.88
- Balance Vesting Price	131.17	159.18	166.74
<i>Ancillary Services (\$/MWh)</i>			
- Primary Reserve	0.24	0.63	0.23
- Contingency Reserve	4.78	12.74	20.25
- Regulation	12.71	18.63	25.98
<i>Fuel Oil Price (US\$/barrel)</i>			
	61.73	78.61	76.36
Demand Indicators			
<i>Forecast Demand (MW)</i>			
- Average	5,751	5,963	5,853
- Peak	6,789	6,956	7,046
<i>Metered Energy (MW)</i>			
- Average	5,683	5,841	5,745
- Peak	6,803	6,931	7,019
Supply Indicators			
<i>Average Supply (MW)</i>			
	8,050	8,025	7,769
<i>Supply Cushion (%)</i>			
	28.55	25.68	24.65
<i>Capacity Ratio (%)</i>			
- CCGT	60.62	62.77	61.57
- OCGT	0.00	0.04	0.10
- OT	50.27	48.06	46.76
- ST	0.10	0.11	0.12
<i>Total Outages (MWh Cumulative)</i>			
- Planned	2,440,247	2,317,201	2,197,866
- Forced	37,507	64,378	10,346
<i>Offers made at or below \$100/MWh (%)</i>			
	77.18	73.81	73.23

Market Performance

The Uniform Singapore Energy Price (USEP) increased 8.99 percent from \$112.76/MWh in Q3 2018 to \$122.89/MWh in Q4 2018. The Wholesale Electricity Price (WEP) also increased 9.21 percent to \$123.19/MWh.

All vesting prices rose. The Balance Vesting Price went up the most by 4.75 percent to \$166.74/MWh in Q4 2018.

Prices of all ancillary services increased except for primary reserve. Contingency reserve price increased most by 58.87 percent from \$12.74/MWh in Q3 2018 to \$20.25/MWh in Q4 2018.

The fuel oil price decreased 2.87 percent from US\$78.61/barrel in Q3 2018 to US\$76.36/barrel this quarter.

Average demand dropped 1.84 percent to 5,853 MW. Average supply also decreased 3.20 percent to 7,769 MW. The supply cushion, which measures supply adequacy, dropped 1.03 percentage points from 25.68 percent in Q3 2018 to 24.65 percent in Q4 2018.

In Q4 2018, the capacity ratios of CCGT and OT units decreased 1.20 and 1.29 percent respectively, while those of OCGT and ST units increased slightly by 0.07 and 0.01 percent.

Planned outage volume dropped 5.15 percent to 2,197,866 MWh in Q4 2018. Forced outage volume declined 83.93 percent to 10,346 MWh.

Overall, the percentage of offers made at or below \$100/MWh decreased 0.58 percentage points to 73.23 percent in Q4 2018.

On 16 October 2018, the Market Surveillance and Compliance Panel (MSCP) issued a suspension order against Charis Electric Pte Ltd.

Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

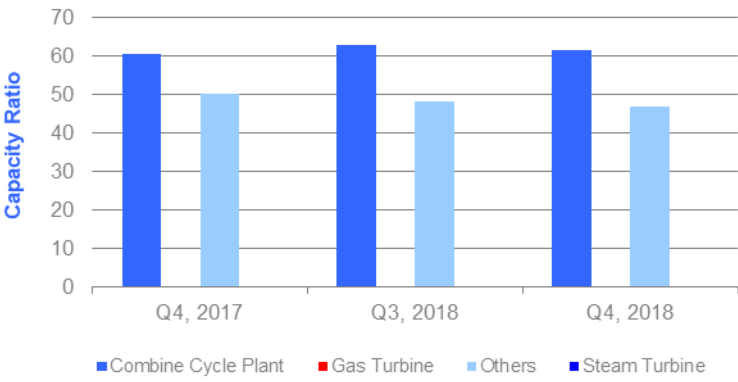


Chart 2: Relationship between USEP and Energy Supply Cushion - Q4 2018

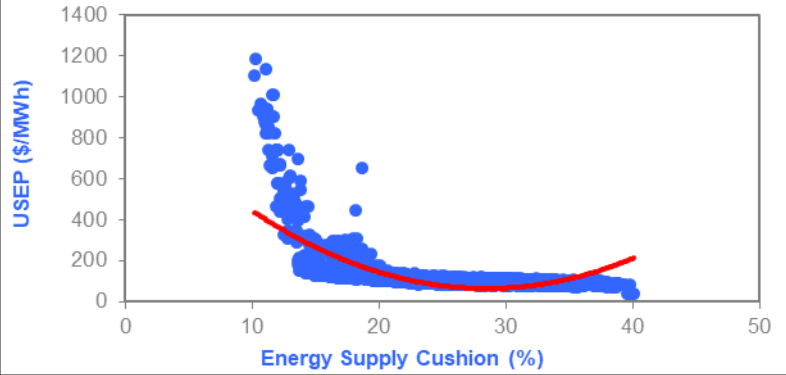


Chart 3: Comparison of Average Market Share by Generation Company Q4 2018

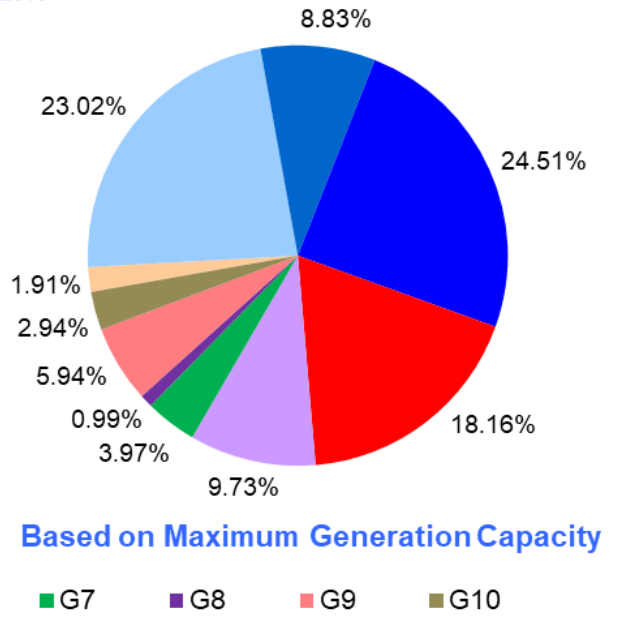
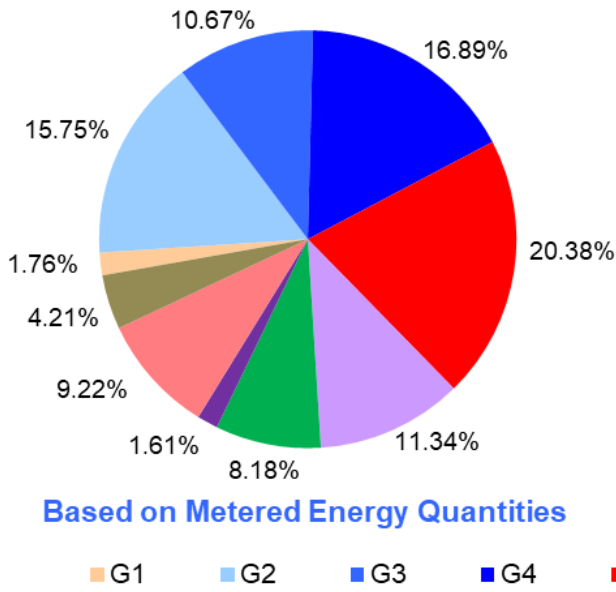
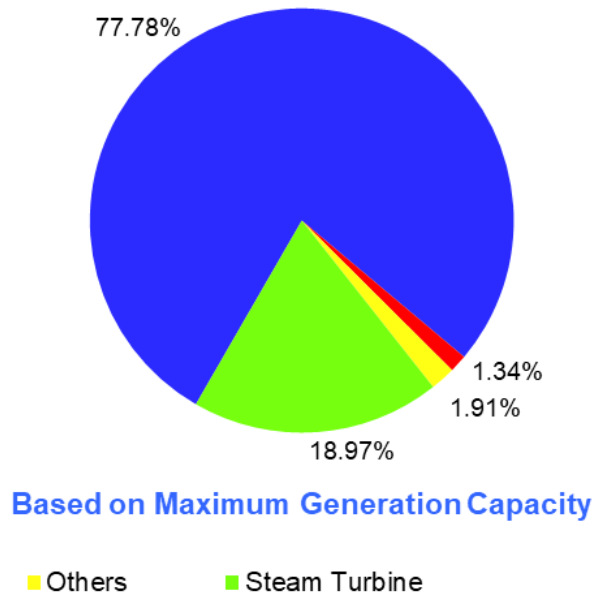
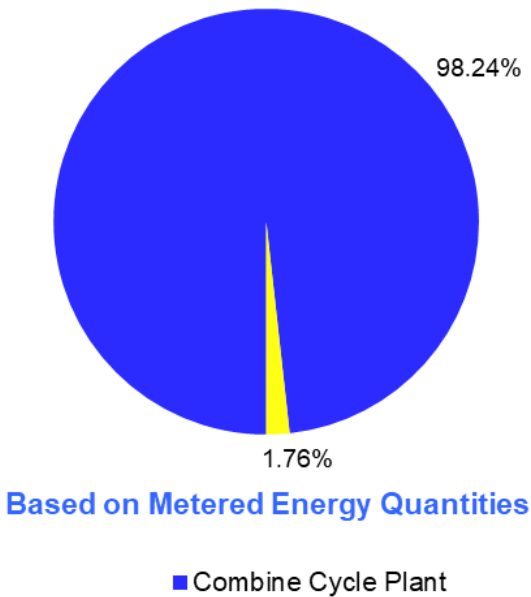


Chart 4: Comparison of Average Market Share by Generation Type Q4 2018



Demand Indicators

Chart 5: Monthly Load Forecast Variation

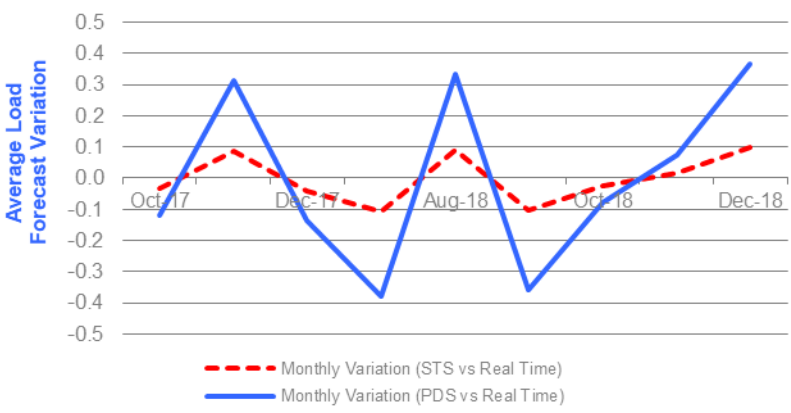
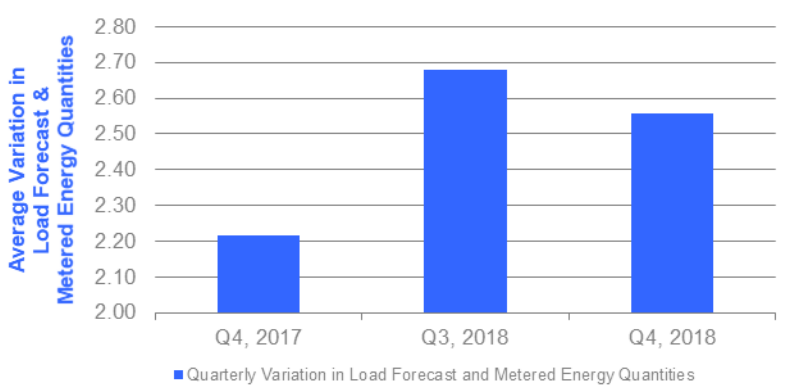


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



Energy Prices

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

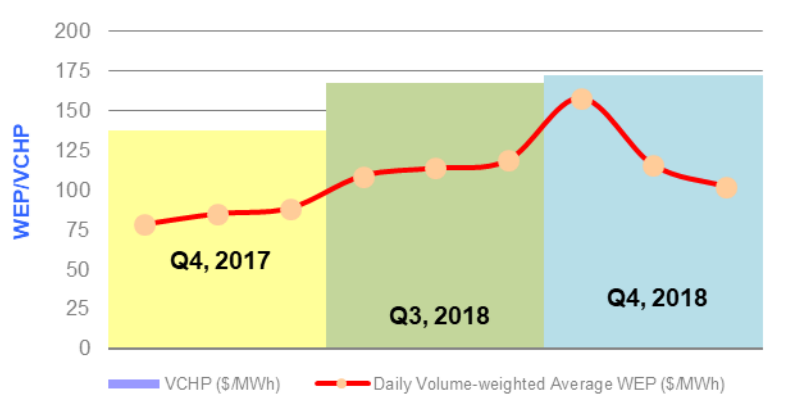


Chart 8: Comparison of Metered Energy Quantities

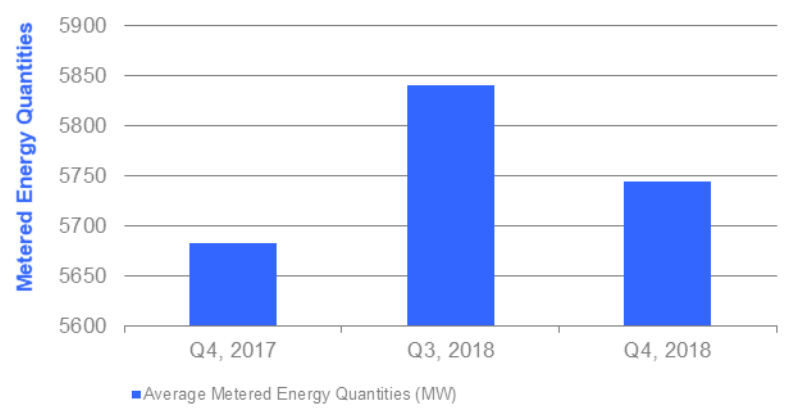


Chart 9: Percentage of Hours when WEP Falls into a Particular Price Range

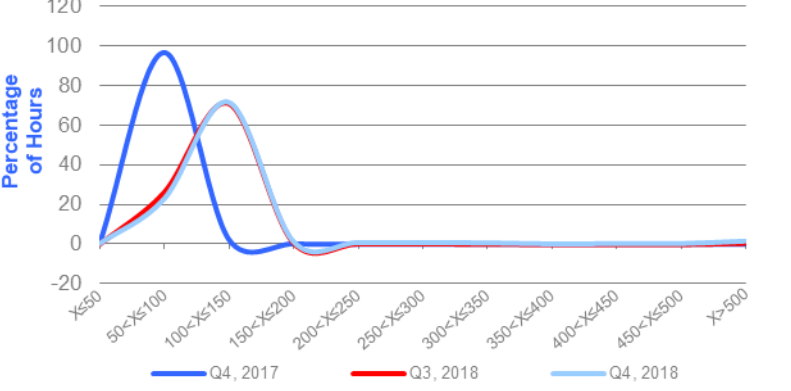


Chart 10: Percentage of Metered Energy Quantities when WEP Falls into a Particular Price Range

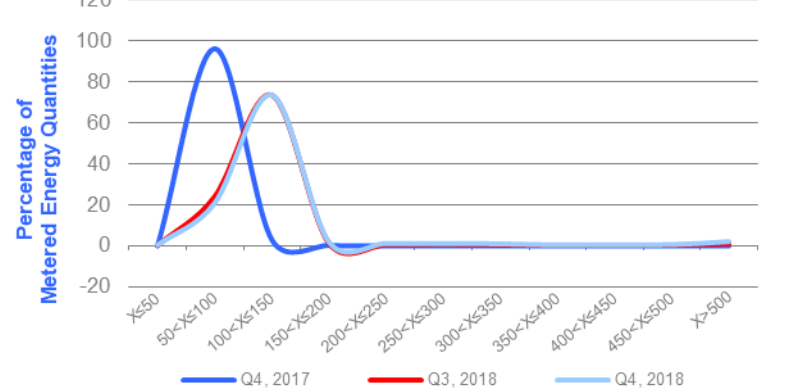


Chart 11: Correlation between WEP & Metered Energy Quantities

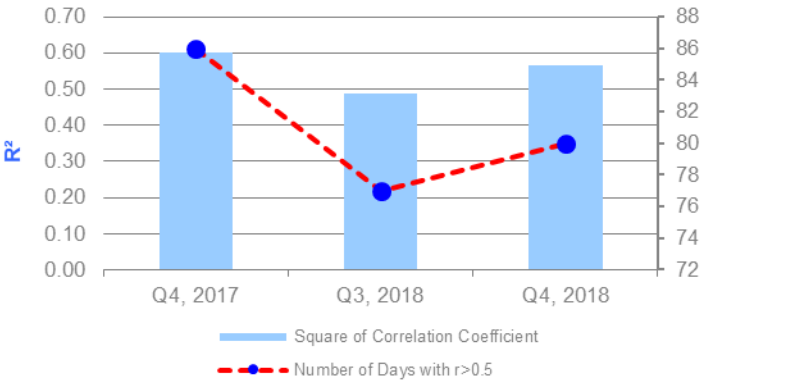


Chart 12: WEP vs Fuel Oil Price

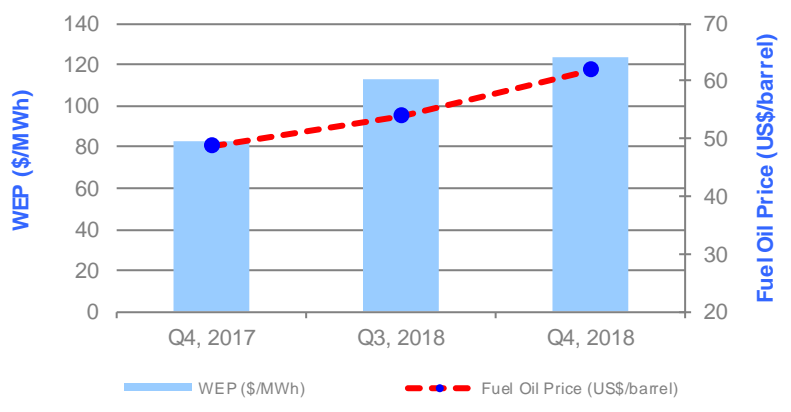
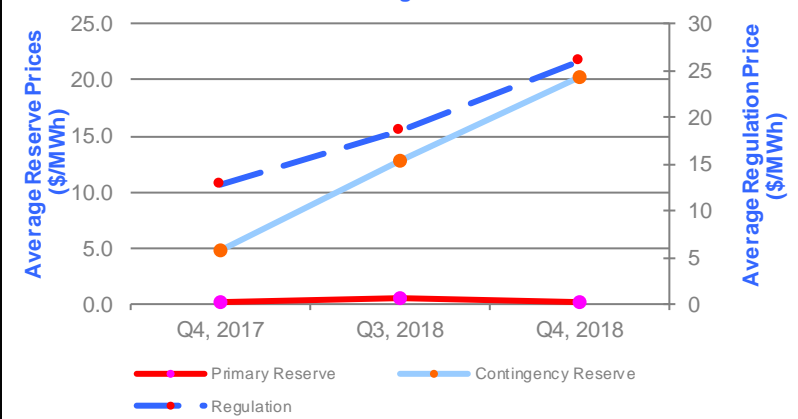


Chart 13: Reserve and Regulation Prices



No. of cases of potential rule breaches	105
Self-reports	2
Referrals/Complaints	103
MSCP initiatives	0
No. of determinations	71
Rule breach	2
No rule breach	69
No further action	0
Enforcement	2
No. of cases with enforcement action	
-Financial penalty	0
-Letter of non-compliance	0
-Suspension order	1
-Other MSCP order	1
Total amount of financial penalties	\$0
Total amount of costs	\$9,000

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.