

# MSCP Market Watch

Fourth Quarter (Oct-Dec) 2014

Issue 34

Table 1: Indicators of Market Performance

	2013 Q4	2014 Q3 Q4	
<b>Price Indicators</b>			
<i>Energy (\$/MWh)</i>			
- USEP	154.83	144.74	121.55
- WEP	154.81	144.73	121.67
- Allocated Vesting Price	-	193.17	188.78
- LNG Vesting Price	-	196.86	192.01
- Balance Vesting Price	-	190.23	187.30
<i>Ancillary Services (\$/MWh)</i>			
- Primary Reserve	0.79	0.72	1.46
- Secondary Reserve	1.28	2.65	4.61
- Contingency Reserve	7.95	7.50	6.48
- Regulation	96.32	23.63	18.58
HSFO Spot (US\$/barrel)	97.46	94.65	72.35
<b>Demand Indicators</b>			
<i>Forecast Demand (MW)</i>			
- Average	5,316	5,657	5,431
- Peak	6,537	6,687	6,616
<i>Metered Energy (MW)</i>			
- Average	5,174	5,493	5,276
- Peak	6,463	6,612	6,589
<b>Supply Indicators</b>			
Average Supply (MW)	7,223	7,915	7,924
Supply Cushion (%)	26.38	28.52	31.47
<i>Capacity Ratio (%)</i>			
- CCGT	66.94	61.13	61.45
- OCGT	0.30	0.37	0.30
- OT	51.29	51.27	49.52
- ST	4.66	0.36	0.08
<i>Total Outages (MWh Cumulative)</i>			
- Planned	1,888,177	2,193,085	1,937,468
- Forced	117,870	59,452	22,819
Offers made at or below \$100/MWh (%)	57.51	60.13	65.54

## Market Performance

The Uniform Singapore Energy Price (USEP) decreased 16.02 percent from \$144.74/MWh in Q3 2014 to \$121.55/MWh in Q4 2014. In line with this, the Wholesale Electricity Price (WEP) decreased 15.93 percent to \$121.67/MWh in Q4 2014. Vesting prices decreased across the board in Q4 2014. The largest price movement was in the LNG Vesting Price, which decreased 2.46 percent to \$192.01/MWh in Q4 2014.

The price movements of ancillary services were mixed – prices of primary and secondary reserve increased whereas prices of contingency reserve and regulation decreased. Primary reserve price had the largest increase; by 103.27 percent to \$1.46/MWh. Regulation price had the largest decrease, it fell 21.37 percent to \$18.58/MWh in Q4 2014.

The High Sulphur Fuel Oil (HSFO) spot price decreased 23.56 percent from US\$94.65/barrel in Q3 2014 to US\$72.35/barrel in Q4 2014.

The supply cushion, which measures supply adequacy, increased 2.95 percentage points from 28.52 percent in Q3 2014 to 31.47 percent in Q4 2014. Demand decreased 3.95 percent to 5,276MW. This was matched by an increase in supply of 0.11 percent to 7,924MW in Q4 2014. The capacity ratios of OCGT, OT and ST decreased 0.07, 1.75 and 0.28 percentage points respectively. The capacity ratio of CCGT increased 0.32 percentage point in Q4 2014.

Planned outage volume decreased 11.66 percent from 2,193,085MWh in Q3 2014 to 1,937,468MWh in Q4 2014. Forced outage volume decreased as well, by 61.62 percent to 22,819MWh in Q4 2014.

Overall, the percentage of offers made at or below \$100/MWh increased by 5.41 percentage points to 65.54 percent in this quarter.

In Q4 2014, the MSCP made one rule breach determination against the Energy Market Company Pte Ltd for “Failure to determine, release and publish short-term and real-time schedules on time on 20 July 2014”.

# Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

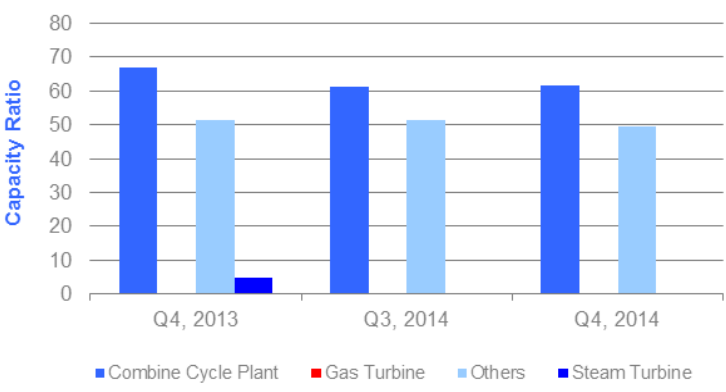


Chart 2: Relationship between USEP and Energy Supply Cushion - Q4 2014

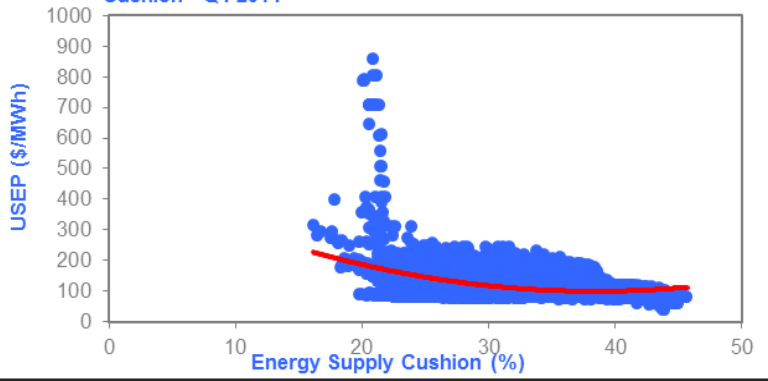


Chart 3: Comparison of Average Market Share by Generation Company Q4 2014

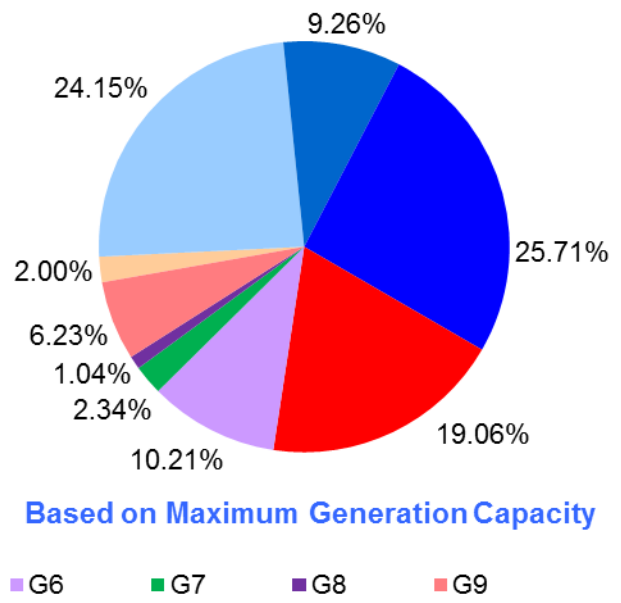
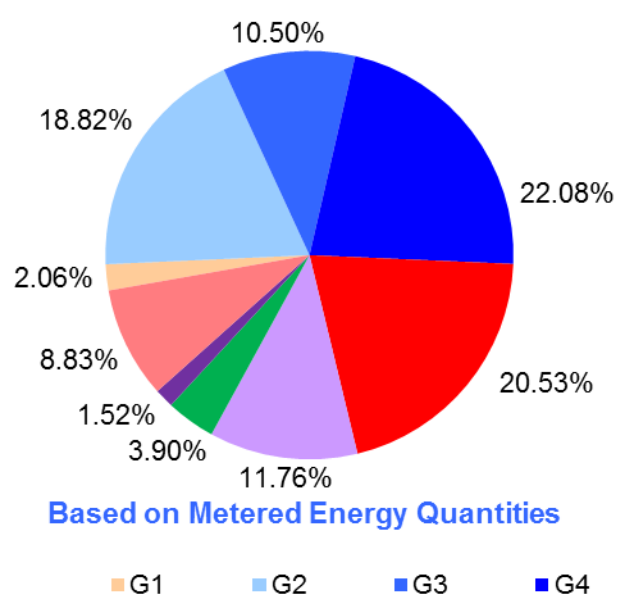
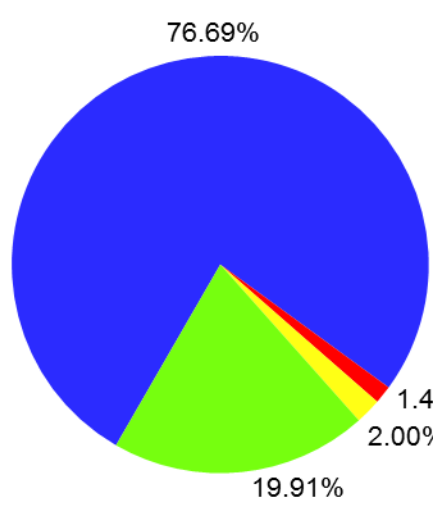
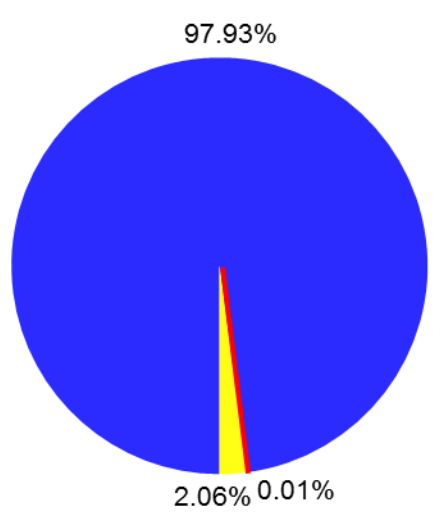


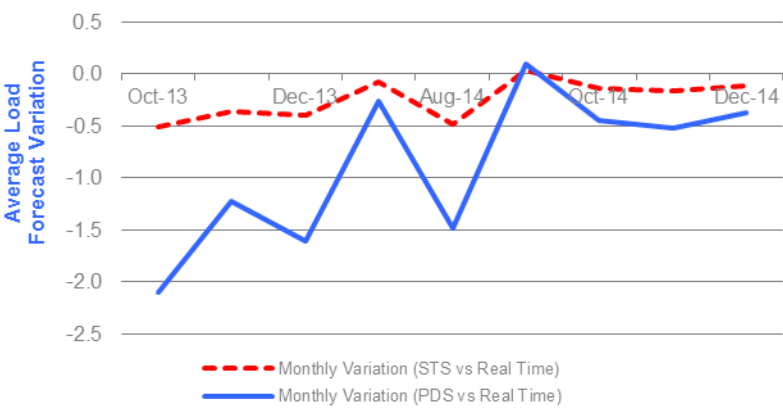
Chart 4: Comparison of Average Market Share by Generation Type Q4 2014



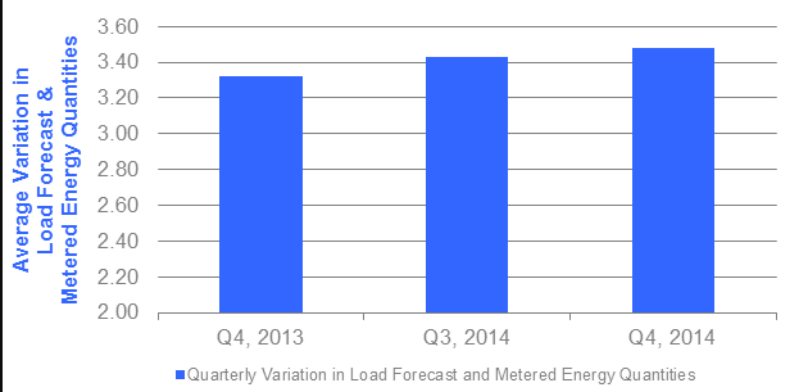
■ Combine Cycle Plant    ■ Gas Turbine    ■ Others    ■ Steam Turbine

# Demand Indicators

**Chart 5: Monthly Load Forecast Variation**

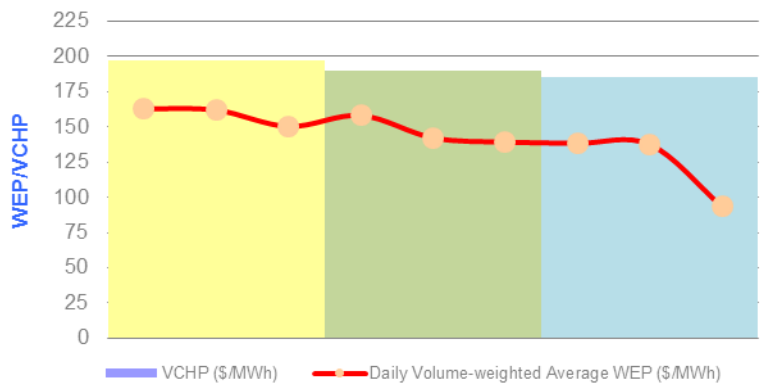


**Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities**

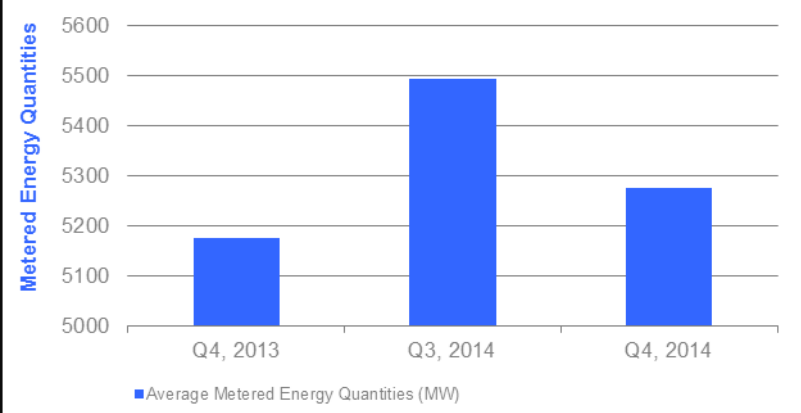


# Energy Prices

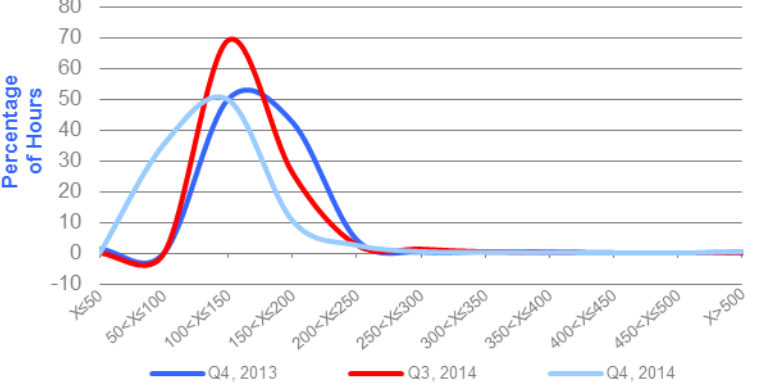
**Chart 7: WEP vs Vesting Contract Hedge Price (VCHP)**



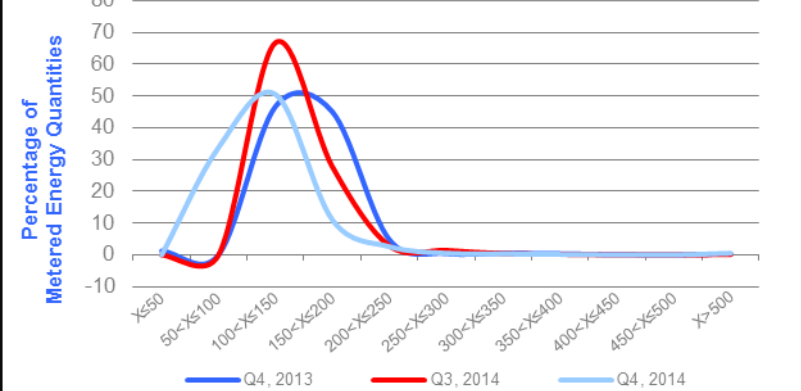
**Chart 8: Comparison of Metered Energy Quantities**



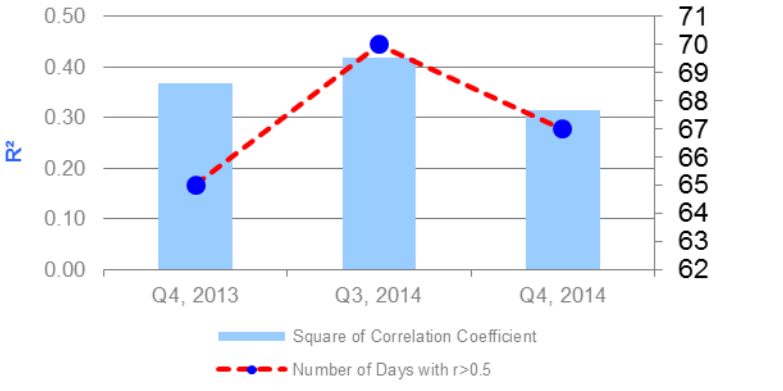
**Chart 9: Percentage of Hours when WEP Falls into a Particular Price Range**



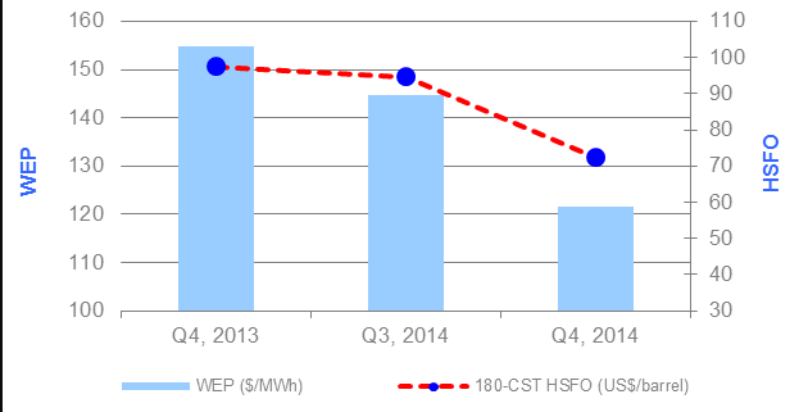
**Chart 10: Percentage of Metered Energy Quantities when WEP Falls into a Particular Price Range**

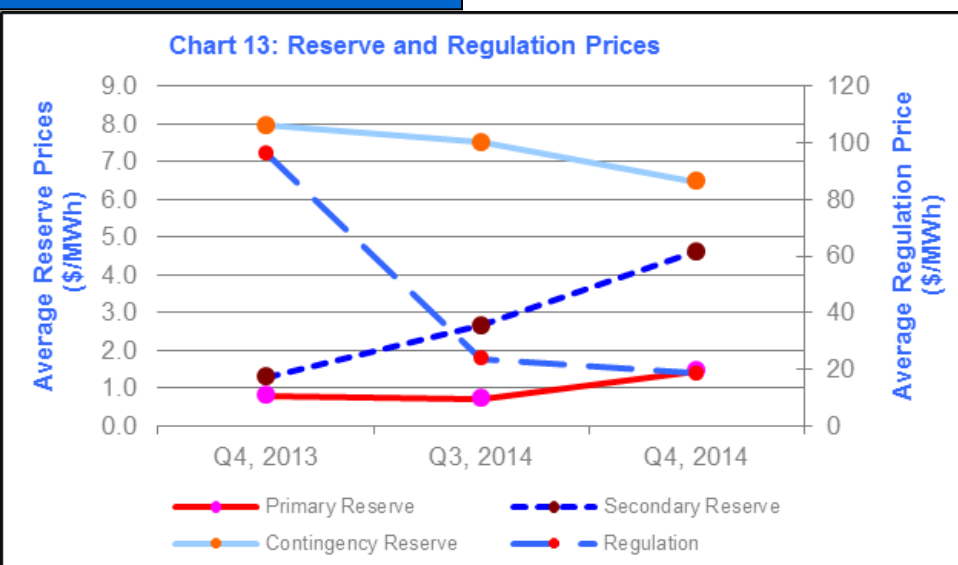


**Chart 11: Correlation between WEP & Metered Energy Quantities**



**Chart 12: WEP vs Fuel Oil Prices (HSFO)**





**Table 2: Compliance Statistics for Q4 2014**

<b>No. of cases of potential rule breaches</b>	<b>363</b>
Self-reports	0
Referrals/Complaints	363
MSCP initiatives	0
<b>No. of determinations</b>	<b>177</b>
Rule breach	1
No rule breach	175
No further action	1
<b>Enforcement</b>	<b>1</b>
No. of cases with enforcement action	1
-Financial penalty	0
-Letter of non-compliance	1
Total amount of financial penalties	\$0
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:**

- *Thean Lip Ping, Chair*
- *Lee Keh Sai*
- *TPB Menon*
- *Philip Chua*