

MSCP Market Watch

Third Quarter (Jul-Sep) 2015

Issue 37

Table 1: Indicators of Market Performance

	2014 Q3	2015 Q2	2015 Q3
Price Indicators			
<i>Energy (\$/MWh)</i>			
- USEP	144.74	103.04	130.32
- WEP	144.73	103.03	129.47
- Allocated Vesting Price	193.17	139.62	153.67
- LNG Vesting Price	196.86	143.91	157.77
- Balance Vesting Price	190.23	132.55	144.49
<i>Ancillary Services (\$/MWh)</i>			
- Primary Reserve	0.72	0.07	0.02
- Secondary Reserve	2.65	0.27	0.05
- Contingency Reserve	7.50	13.01	11.88
- Regulation	23.63	17.64	14.16
HSFO Spot (US\$/barrel)	94.65	58.59	43.42
Demand Indicators			
<i>Forecast Demand (MW)</i>			
- Average	5,657	5,628	5,660
- Peak	6,687	6,696	6,684
<i>Metered Energy (MW)</i>			
- Average	5,493	5,515	5,561
- Peak	6,612	6,639	6,621
Supply Indicators			
Average Supply (MW)	7,915	7,805	7,906
Supply Cushion (%)	28.52	27.89	28.40
<i>Capacity Ratio (%)</i>			
- CCGT	61.13	65.30	63.92
- OCGT	0.37	0.53	0.45
- OT	51.27	52.76	52.39
- ST	0.36	0.13	0.43
<i>Total Outages (MWh Cumulative)</i>			
- Planned	2,193,085	2,138,070	2,145,526
- Forced	59,452	17,971	17,336
<i>Offers made at or below \$100/MWh (%)</i>			
	60.13	74.33	73.24

Market Performance

The Uniform Singapore Energy Price (USEP) increased 26.47 percent, from \$103.04/MWh in Q2 2015 to \$130.32/MWh in Q3 2015. This was largely caused by high USEPs in July 2015; USEP settled at an average of \$207.03/MWh for the month, with the highest half-hour USEP at \$1,328.06/MWh recorded at period 28 on 21 July 2015.

The Wholesale Electricity Price (WEP) rose 25.66 percent to \$129.47/MWh in Q3 2015. Vesting prices increased across the board in Q3 2015. The Allocated Vesting Price showed the largest change, rising 10.06 percent to \$153.67/MWh in Q3 2015.

Prices of all ancillary services decreased. Secondary reserve had the largest price decrease – 80.32 percent to \$0.05/MWh in Q3 2015.

The High Sulphur Fuel Oil (HSFO) spot price decreased 25.89 percent from US\$58.59/barrel in Q2 2015 to US\$43.42/barrel in Q3 2015.

The supply cushion, which measures supply adequacy, increased 0.51 percentage point from 27.89 percent in Q2 2015 to 28.40 percent in Q3 2015. Demand grew 0.83 percent to 5,561MW, while supply grew 1.30 percent to 7,906MW.

The capacity ratios of CCGT, OCGT and OT decreased 1.38, 0.08 and 0.37 percentage points respectively. The capacity ratio of ST rose 0.30 percentage point.

Planned outage volume rose 0.35 percent to 2,145,526MWh in Q3 2015. Forced outage volume declined 3.53 percent to 17,336MWh this quarter.

Overall, the percentage of offers made at or below \$100/MWh decreased 1.09 percentage points to 73.24 percent in Q3 2015.

In Q3 2015, there were 90 periods of price separation due to binding security constraints. 52 of these periods occurred in July. Price separations between Jurong Island and the rest of the grid resulted in the high USEPs for that month.

The MSCP made one rule breach determination in Q3 2015 against the Energy Market Company Pte Ltd for failing to release and publish real-time schedules, short-term schedules and pre-dispatch schedules on 16 January 2015.

Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

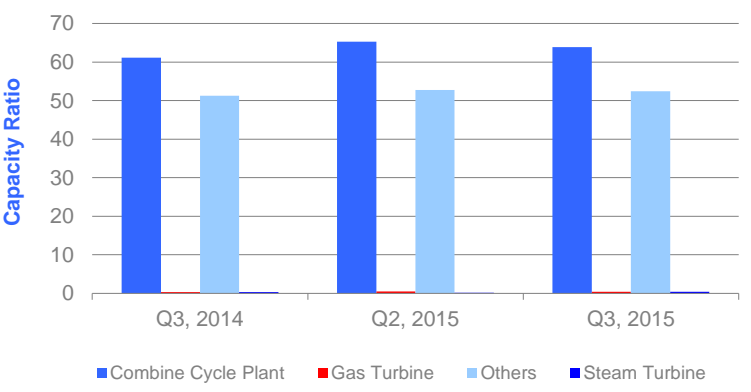


Chart 2: Relationship between USEP and Energy Supply Cushion - Q3 2015

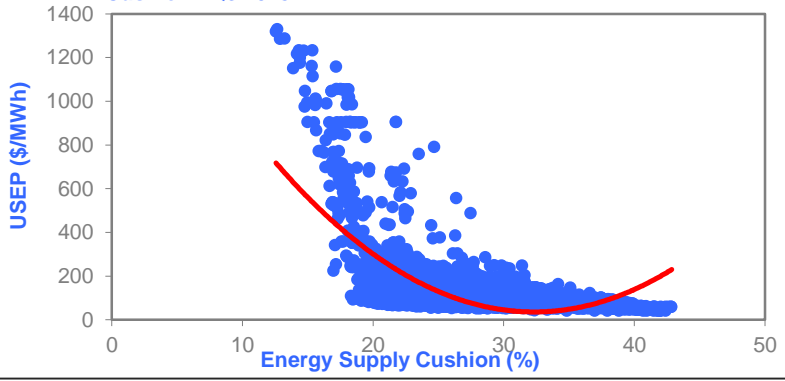


Chart 3: Comparison of Average Market Share by Generation Company Q3 2015

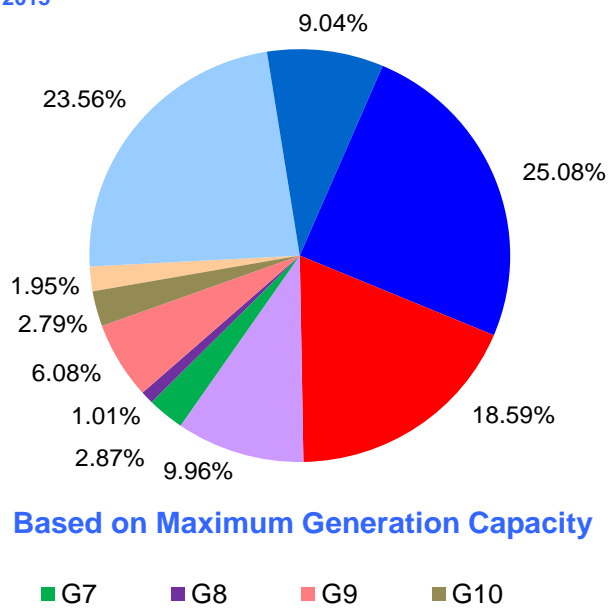
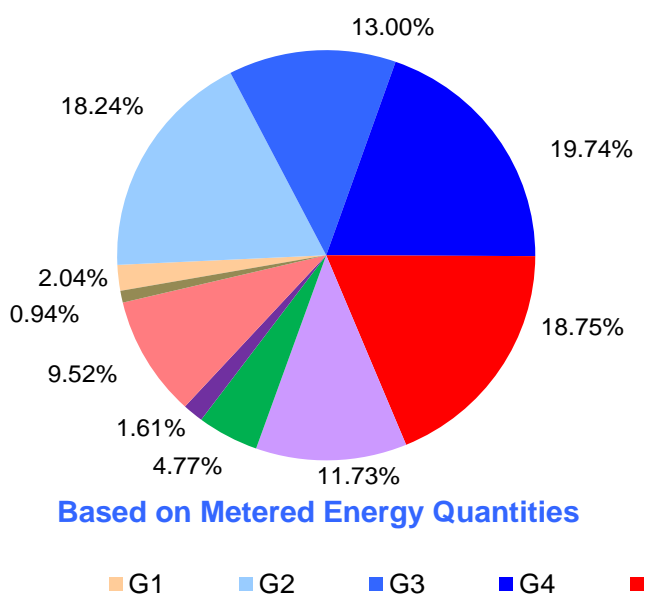
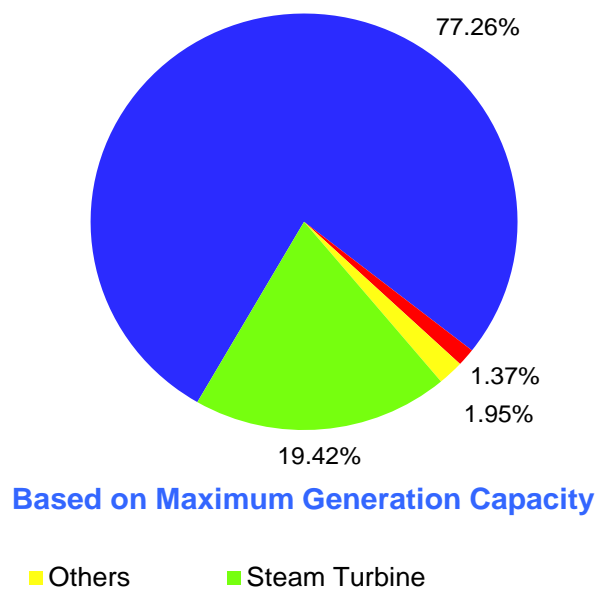
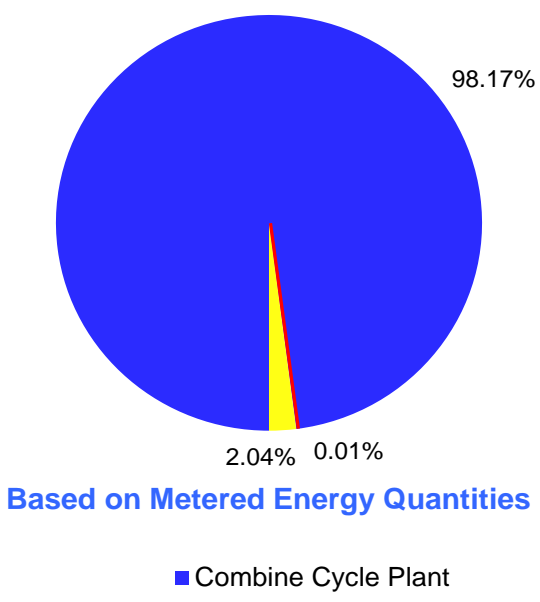


Chart 4: Comparison of Average Market Share by Generation Type Q3 2015



Demand Indicators

Chart 5: Monthly Load Forecast Variation

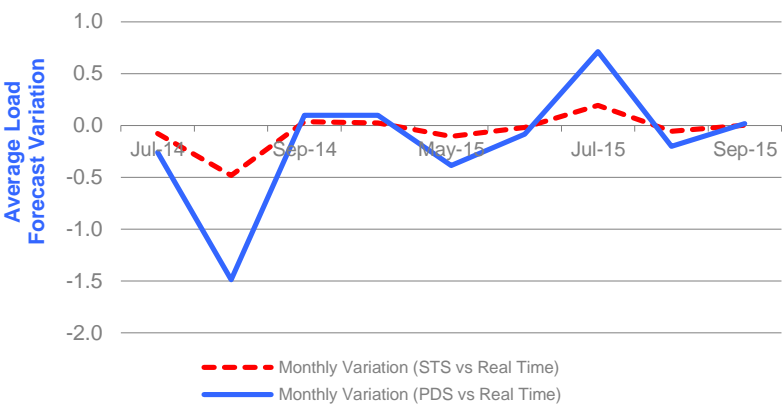
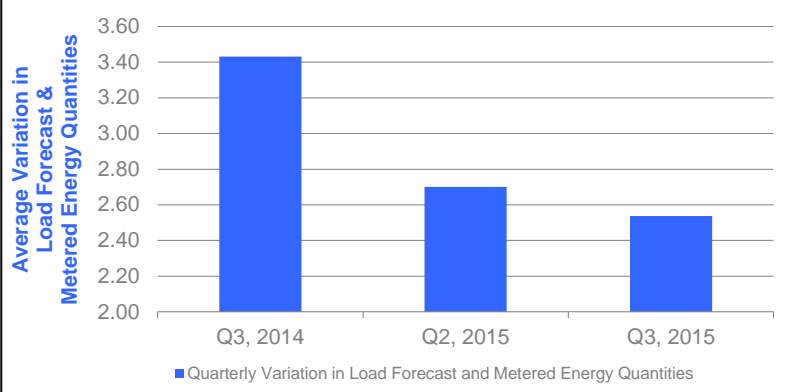


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



Energy Prices

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

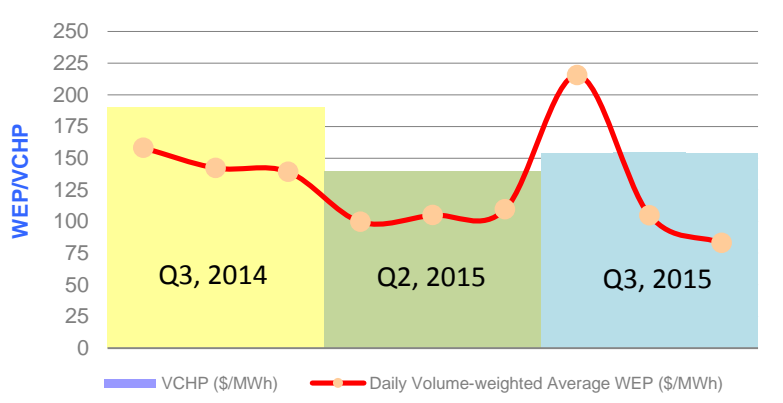


Chart 8: Comparison of Metered Energy Quantities

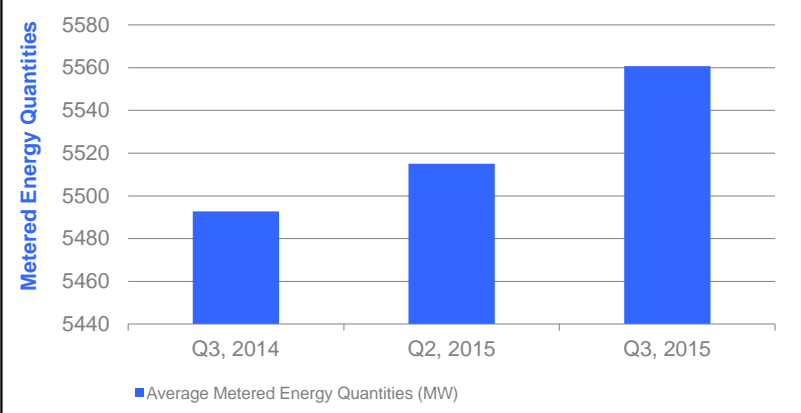


Chart 9: Percentage of Hours when WEP Falls into a Particular Price Range

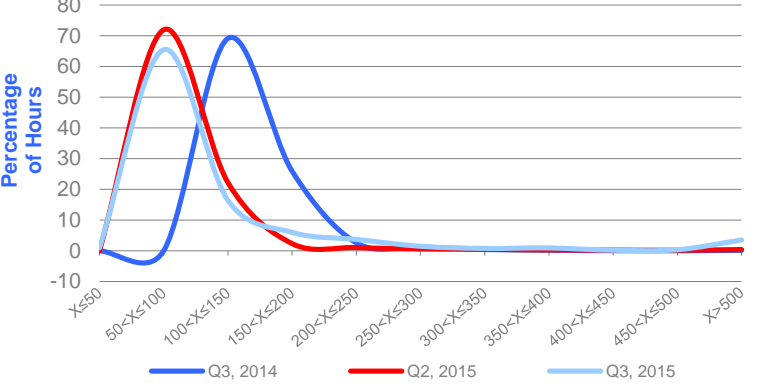


Chart 10: Percentage of Metered Energy Quantities when WEP Falls into a Particular Price Range

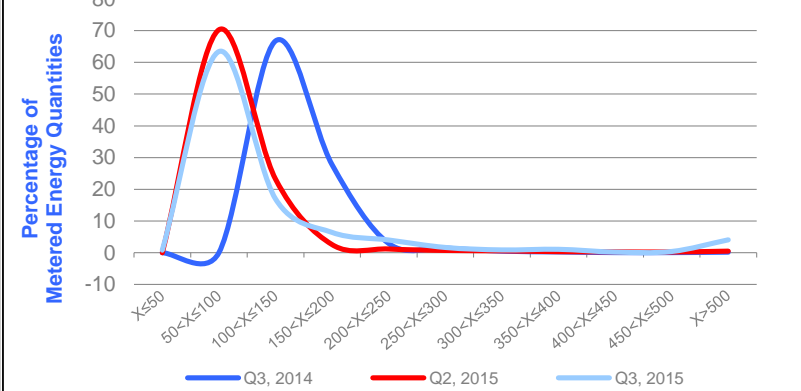


Chart 11: Correlation between WEP & Metered Energy Quantities

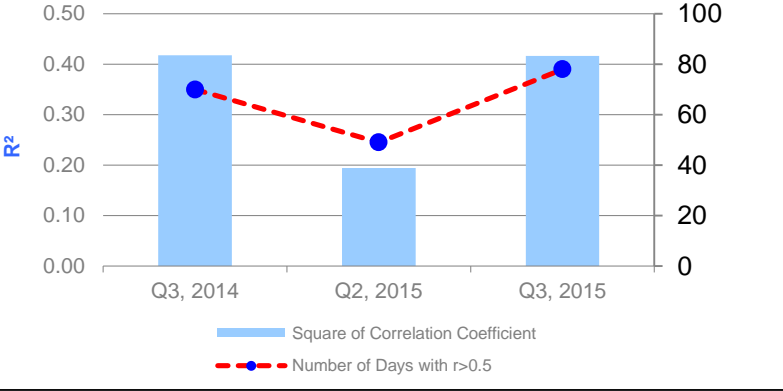
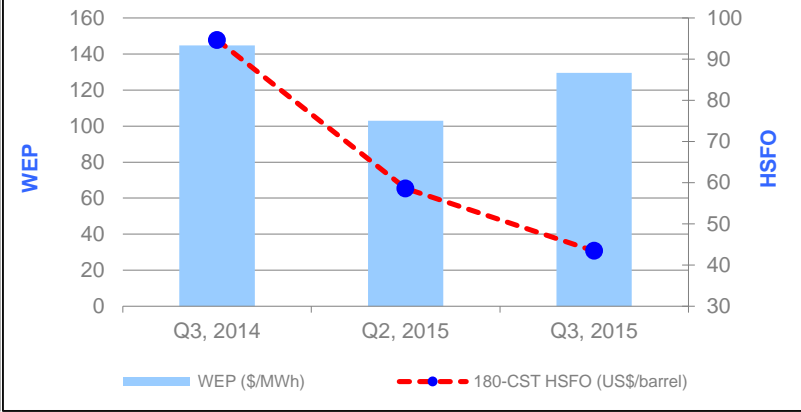
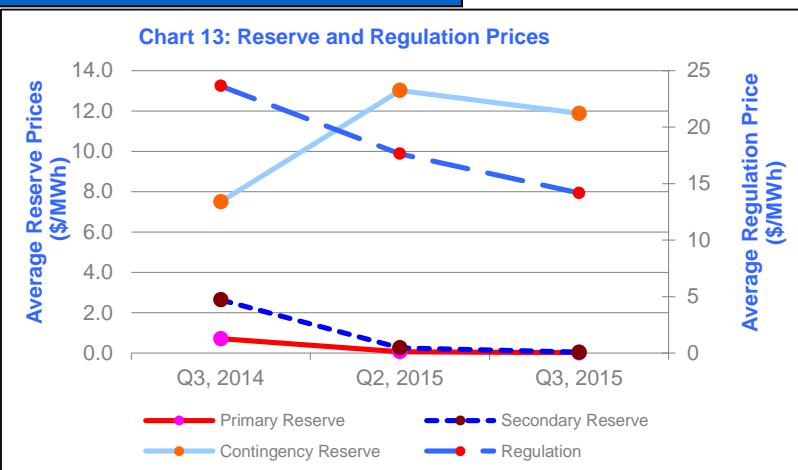


Chart 12: WEP vs Fuel Oil Price (HSFO)





No. of cases of potential rule breaches	189
Self-reports	1
Referrals/Complaints	188
MSCP initiatives	0
No. of determinations	348
Rule breach	1
No rule breach	332
No further action	15
Enforcement	1
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.

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

- Thean Lip Ping, Chair
- Lee Keh Sai
- TPB Menon
- Philip Chua
- Professor Euston Quah

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