

MSCP Market Watch

Second Quarter (Apr-Jun) 2012

Issue 24

Table 1: Indicators of Market Performance

	2011 Q2	2012 Q1	2012 Q2
Price Indicators			
<i>Energy (\$/MWh)</i>			
- USEP	243.36	227.39	253.19
- WEP	244.15	228.67	254.10
- VCHP	193.11	211.52	224.48
<i>Ancillary Services (\$/MWh)</i>			
- Primary Reserve	0.59	0.46	0.47
- Secondary Reserve	3.62	2.02	2.65
- Contingency Reserve	17.98	15.47	16.50
- Regulation	65.51	92.83	91.65
<i>HSFO Spot (US\$/barrel)</i>			
	103.22	117.55	106.09
Demand Indicators			
<i>Forecast Demand (MW)</i>			
- Average	5,129	5,006	5,264
- Peak	6,312	6,176	6,356
<i>Metered Energy (MW)</i>			
- Average	5,065	4,900	5,163
- Peak	6,289	6,098	6,329
Supply Indicators			
<i>Average Supply (MW)</i>			
	6,774	6,644	6,895
<i>Supply Cushion (%)</i>			
	24.29	24.66	23.66
<i>Capacity Ratio (%)</i>			
- CCGT	74.64	74.79	73.74
- OCGT	0.17	0.22	0.19
- OT	41.34	43.29	41.68
- ST	35.34	22.48	26.84
<i>Total Outages (MWh Cumulative)</i>			
- Planned	1,294,044	1,832,123	1,159,790
- Unplanned*	398,904	376,346	584,321
- Forced	35,994	23,975	38,561
<i>Offers made at and below \$100/MWh (%)</i>			
	54.75	56.56	56.64

Market Performance

The Uniform Singapore Energy Price (USEP) rose 11.35 percent from \$227.39/MWh in Q1 2012 to \$253.19/MWh in Q2 2012. In line with the increase in the USEP, the Wholesale Electricity Price (WEP) also increased 11.12 percent to \$254.10/MWh in Q2 2012. Meanwhile, the Vesting Contract Hedge price (VCHP) rose 6.12 percent from \$211.52/MWh in Q1 2012 to \$224.48/MWh in Q2 2012.

Prices for ancillary services increased across the board except for Regulation price, which declined slightly by 1.27 percent to \$91.65/MWh in Q2 2012. The High Sulphur Fuel Oil (HSFO) spot price eased 9.75 percent from US\$117.55/barrel to US\$106.09/barrel.

Both the forecast demand and metered energy reached record high peaks of 6,356MW and 6,329MW respectively in this quarter. In the meantime, the supply cushion which measures supply adequacy has weakened by 1 percentage point from 24.66 percent in Q1 2012 to 23.66 percent in Q2 2012 as a result of forecast demand outpacing supply across the quarter.

The capacity ratio (scheduled output over maximum generation capacity) for CCGT fell by about 1.05 percent in Q2 2012 as a result of the entry of two new CCGT facilities which drove up maximum generation capacity.

Anticipated outages (MWh) decreased by about 21 percent in Q2 2012. Meanwhile, the quantity of forced outages increased 60.84 percent in the same quarter.

In Q2 2012, the MSCP made two rule breach determinations pertaining to:

i) Failure by a market participant to comply with dispatch instructions and to reflect its true plant capabilities in its offers on 15 August 2011; and

ii) Failure by EMC to determine, release and publish the real-time dispatch schedule for period 30 on 2 December 2011.

* The category 'Unplanned Outages' was removed from the System Operation Manual with effect from 1 June 2012. Future editions of the Market Watch will reflect the change.

Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

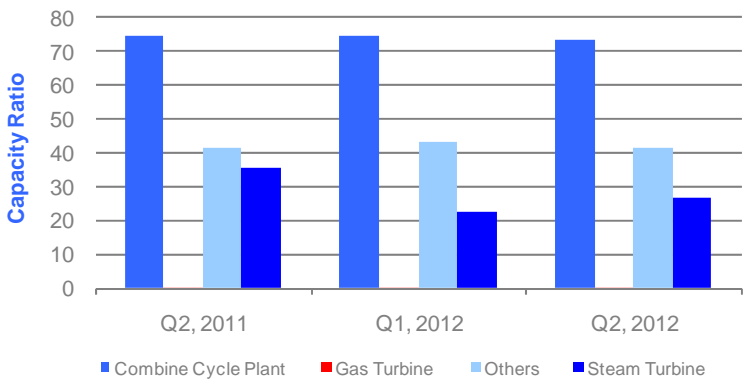


Chart 2: Relationship between USEP and Energy Supply Cushion - Q2 2012

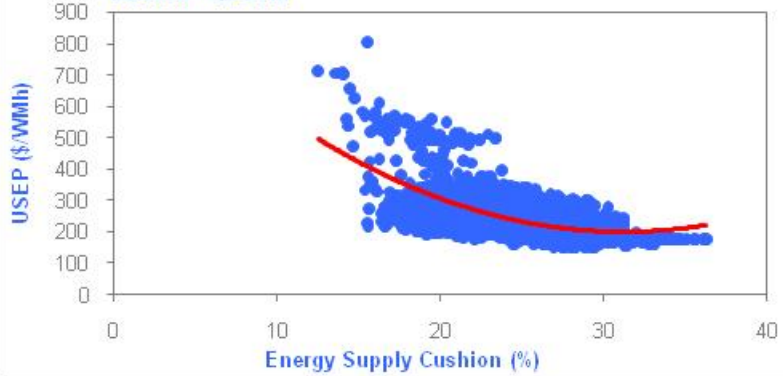
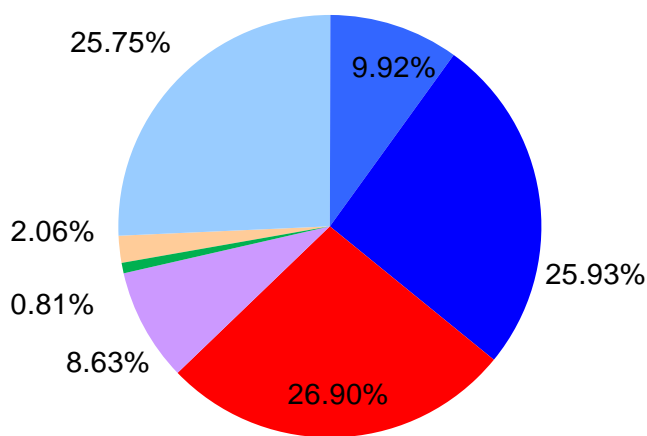
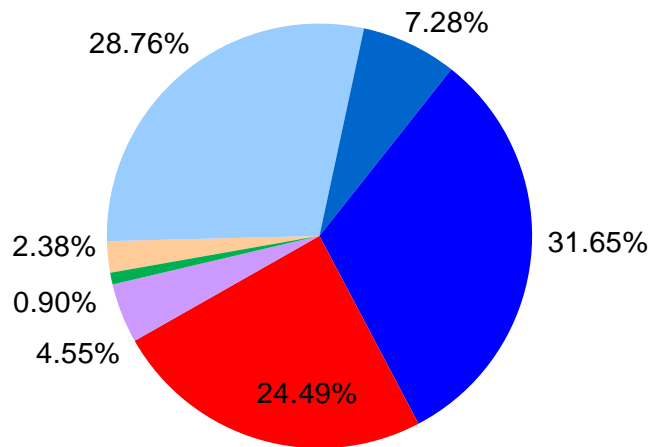


Chart 3: Comparison of Average Market Share by Generation Company Q2 2012



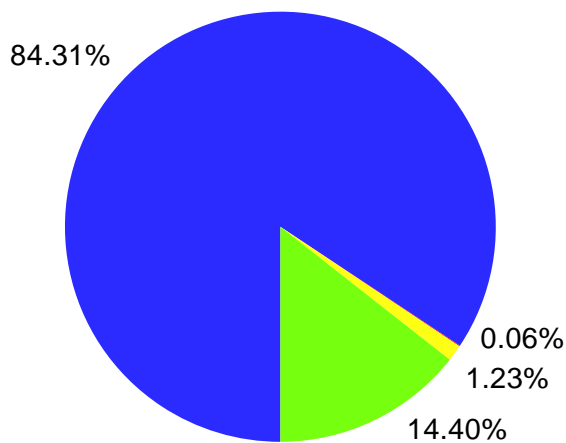
Based on Metered Energy Quantities



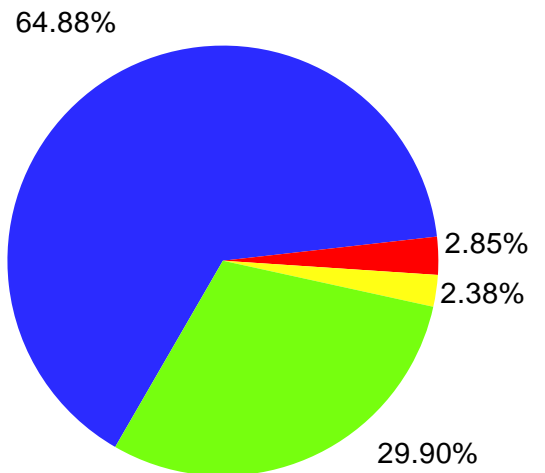
Based on Maximum Generation Capacity

G1 G2 G3 G4 G5 G6 G7

Chart 4: Comparison of Average Market Share by Generation Type Q2 2012



Based on Metered Energy Quantities



Based on Maximum Generation Capacity

Combine Cycle Plant Gas Turbine Others Steam Turbine

Demand Indicators

Chart 5: Monthly Load Forecast Variation

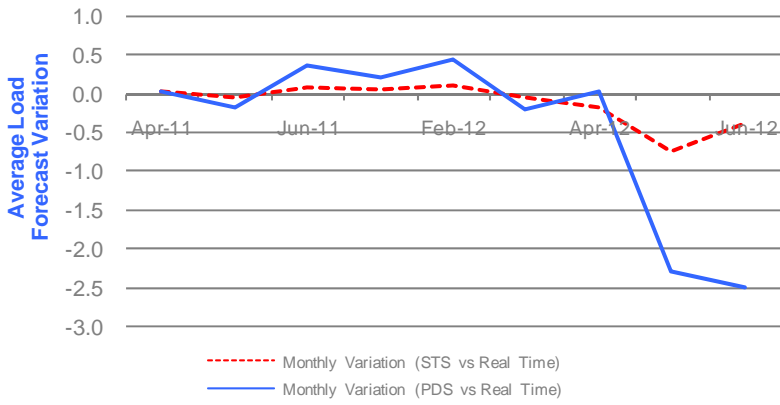
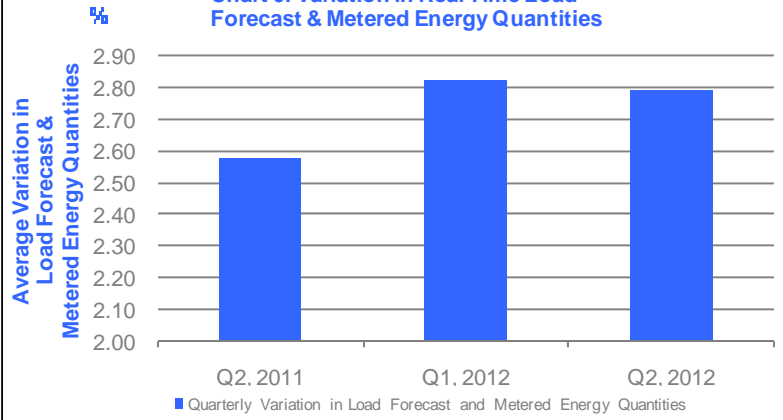


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



Energy Prices

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

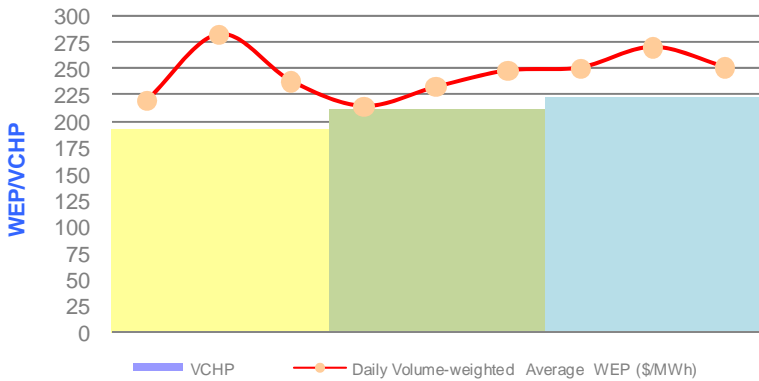


Chart 8: Comparison of Metered Energy Quantities

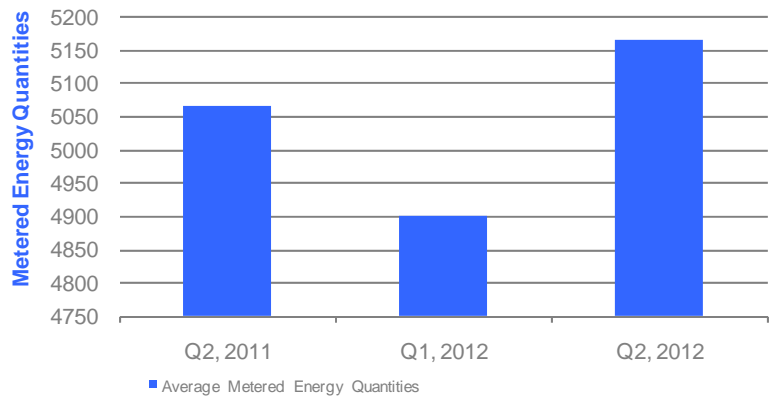


Chart 9: Percentage of Hours when WEP Falls Into a Particular Price Range

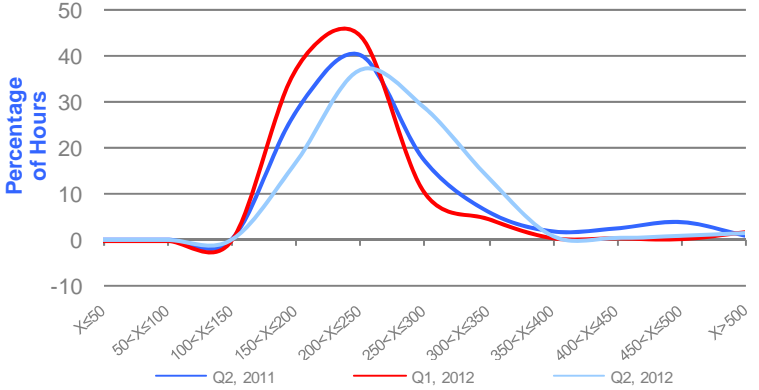


Chart 10: Percentage of Metered Energy Quantities when WEP Falls Into a Particular Price Range

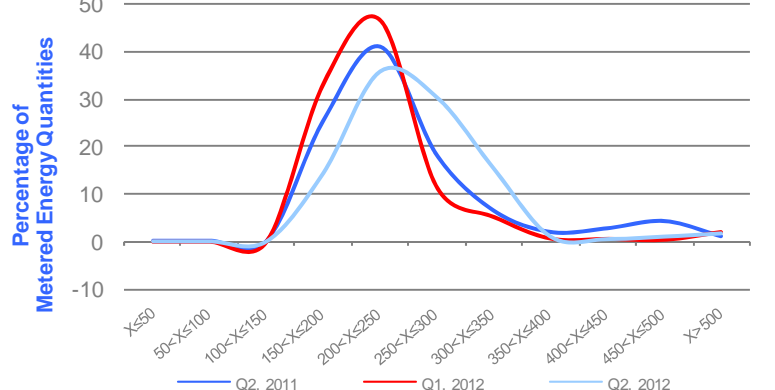


Chart 11: Correlation between WEP & Metered Energy Quantities

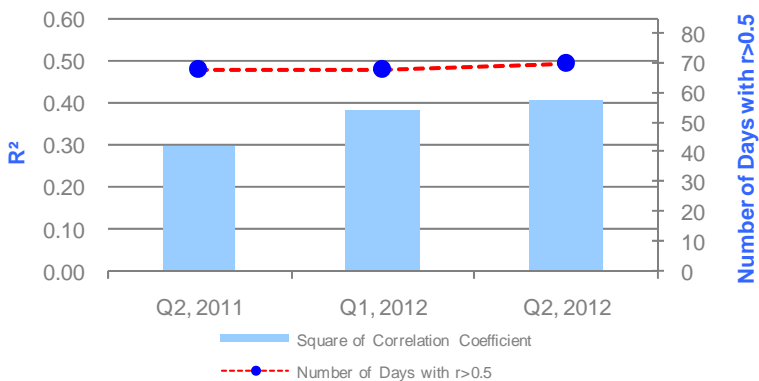
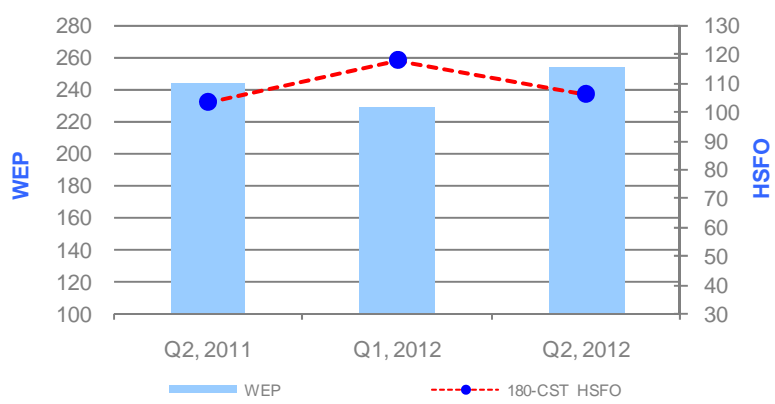


Chart 12: WEP vs Fuel Oil Prices (HSFO)



Ancillary Prices

Chart 13: Reserve and Regulation Prices

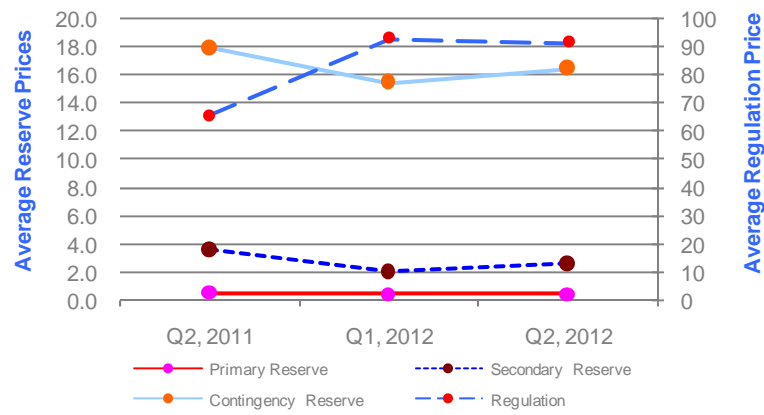


Table 2: Compliance Statistics for Q2 2012

No. of cases of potential rule breaches	402
Self-reports	0
Referrals/Complaints	402
MSCP initiatives	0
No. of determinations	418
Rule breach	2
No rule breach	415
No further action	1
Enforcement	2
No. of cases with enforcement action	
-Financial penalty	1
-Letter of non-compliance	1
Total amount of financial penalties	\$40,000
Total amount of costs	\$7,300

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

- Thean Lip Ping, Chair
- Lee Keh Sai
- Professor Lim Chin
- TPB Menon
- Philip Chua

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