

MSCP Market Watch

First Quarter (Jan-Mar) 2010

Issue 15

Table 1: Indicators of Market Performance

	2009		2010
	Q1	Q4	Q1
Price Indicators			
<i>Energy (\$/MWh)</i>			
- USEP	85.64	160.75	191.45
- WEP	86.89	161.92	192.36
- VCHP	167.14	161.70	171.05
<i>Ancillary Services (\$/MWh)</i>			
- Primary Reserve	0.95	0.36	2.02
- Secondary Reserve	2.76	5.64	12.41
- Contingency Reserve	7.24	9.50	21.10
- Regulation	35.98	52.11	63.29
HSFO Spot (US\$/barrel)	39.21	72.99	74.95
Demand Indicators			
<i>Forecast Demand (MW)</i>			
- Average	4,267	4,719	4,863
- Peak	5,467	5,841	6,106
<i>Metered Energy (MW)</i>			
- Average	4,152	4,593	4,729
- Peak	5,350	5,752	5,963
Supply Indicators			
<i>Capacity Ratio (%)</i>			
- CCGT	76.74	74.80	71.28
- GT	0.15	0.27	0.27
- OT	45.74	39.75	42.06
- ST	15.62	24.55	30.36
Supply Cushion (%)	26.60	23.75	22.64
<i>Total Outages (MWh Cumulative)</i>			
- Planned	2,199,036	2,606,015	1,639,256
- Unplanned	626,714	176,075	30,498
- Forced	18,002	180,109	41,302
Offers made below \$100/MWh (%)	77.25	55.66	57.81

Market Performance

In Q1 2010, the average USEP rose by 19.09% from \$160.75/MWh to \$191.45/MWh over Q4 2009. Higher demand and greater utilization of ST units contributed to the higher USEP. Similarly, the average WEP rose by 18.80% to \$192.36/MWh. Fuel oil prices and the VCHP also increased slightly, by 2.68% and 5.78% respectively.

The average prices for ancillary services also rose significantly in Q1 2010 over Q4 2009. The largest increase was in the primary reserve price, which rose from \$0.36/MWh to \$2.02/MWh. Secondary and contingency reserve prices rose by 120.21% and 122.25% to \$12.41/MWh and \$21.10/MWh, respectively. Meanwhile, the average regulation price saw an increase of 21.44% from \$52.11/MWh to \$63.20/MWh.

The higher average USEP coincided with higher demand in Q1 2010. Compared to Q4 2009, the average forecast demand this quarter increased by 3.05% to 4,863MW, while forecast peak demand rose by 4.54% to 6,106MW. Average metered energy rose by 2.95% while peak metered demand rose by 3.66%. Higher demand also coincided with a lower supply cushion, which declined by 1.11% to 22.64%. Meanwhile, the quantity of offers made below \$100/MWh increased by 2.15%.

Planned maintenance for CCGT units increased by 23.70% in Q1 2010. In contrast, the planned maintenance for ST units dropped by 65.12%. This drop coincided with a 5.68% increase and a 0.79% decline in scheduled generation for ST units and CCGT units, respectively. The greater utilization of more expensive ST units contributed to the higher USEP in Q1 2010.

The USEP rose above \$1,000/MWh for three periods in Q1 2010. Two price spikes occurred right after a forced outage of a ST unit on 22 February 2010. The momentary dip in the supply cushion also coincided with stronger demand. On 15 March 2010, one instance of a price spike occurred in Period 22, when the supply cushion was 9.64%, the lowest level in the quarter. Strong demand and low CCGT offer availability also coincided with a low supply cushion.

Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

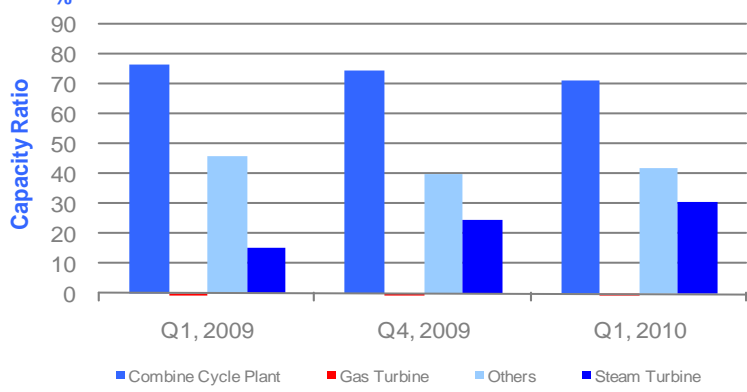


Chart 2: Relationship between USEP and Energy Supply Cushion - Q1 2010

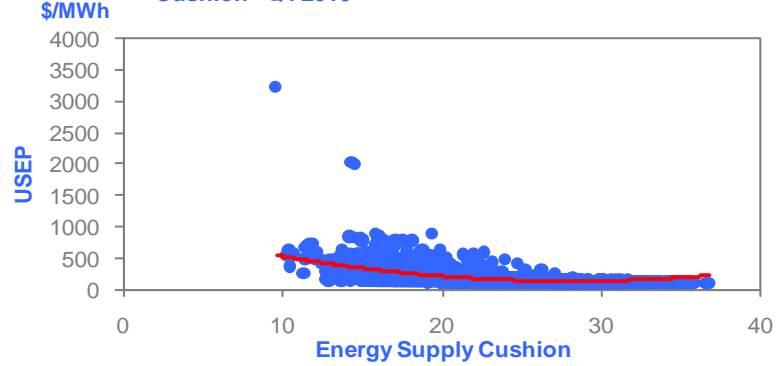


Chart 3: Comparison of Average Market Share by Generation Company Q1 2010

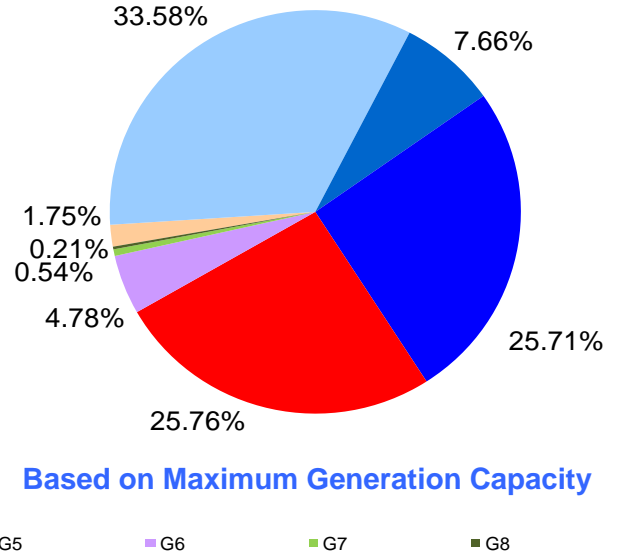
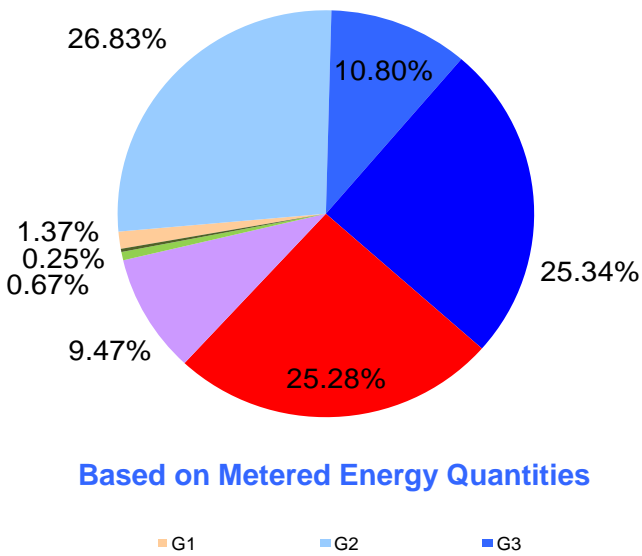
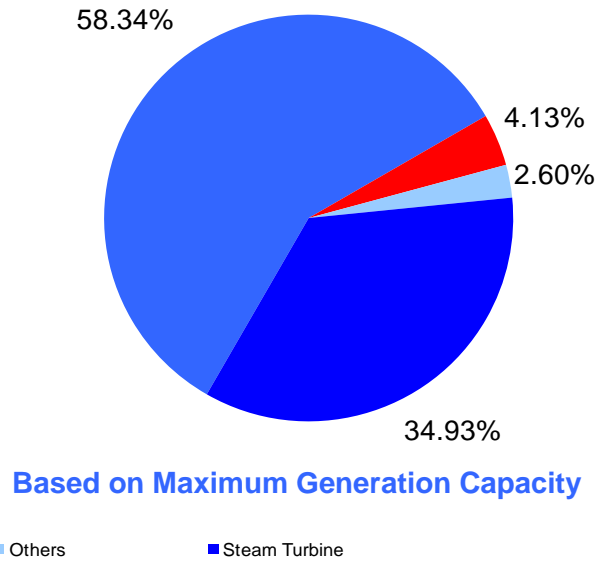
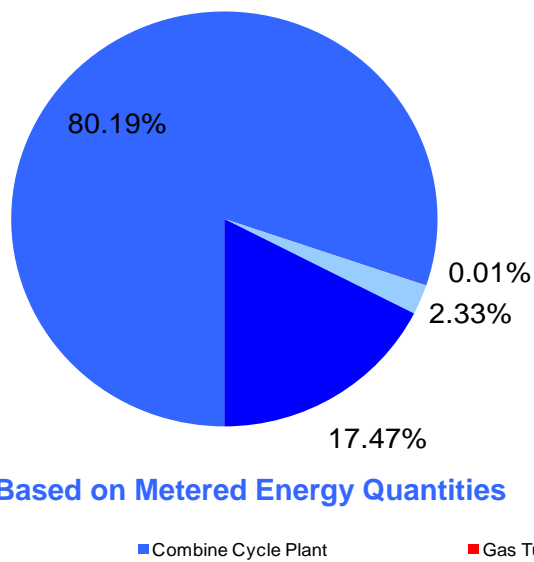


Chart 4: Comparison of Average Market Share by Generation Type Q1 2010



Demand Indicators

Chart 5: Monthly Load Forecast Variation

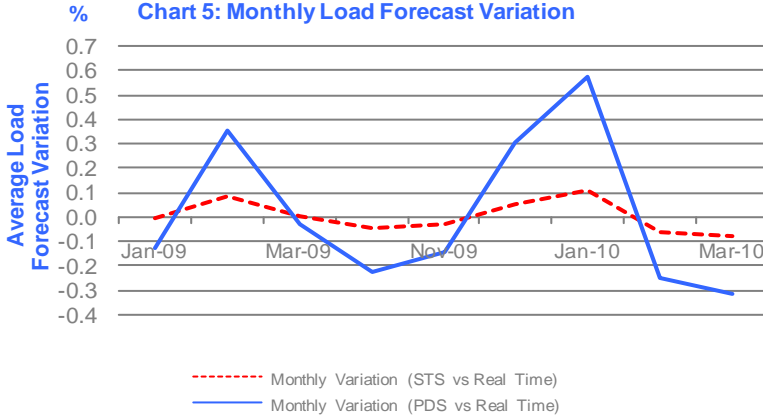
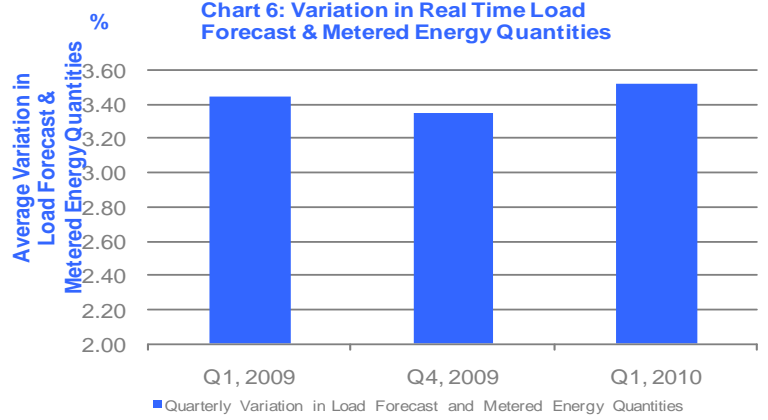


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



Energy Prices

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

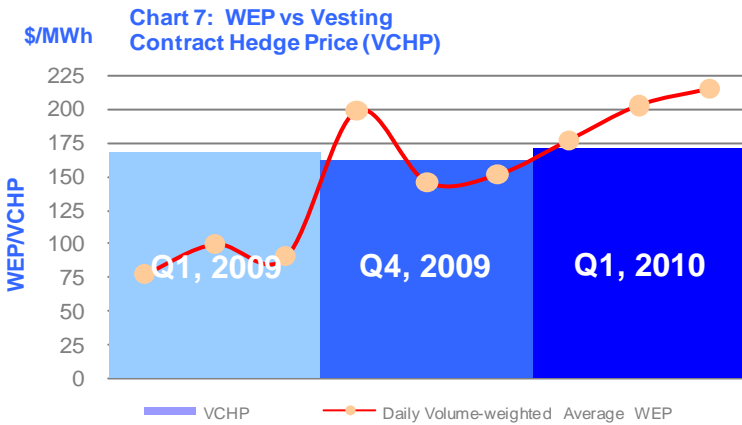


Chart 8: Comparison of Metered Energy Quantities

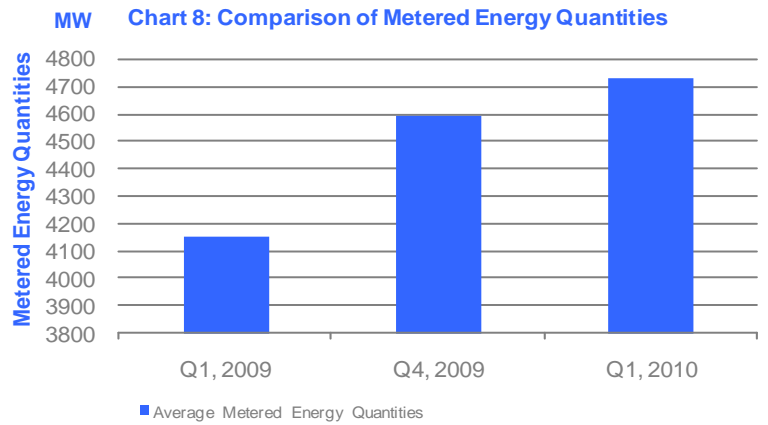


Chart 9: Percentage of Hours when WEP Falls Into a Particular Price Range

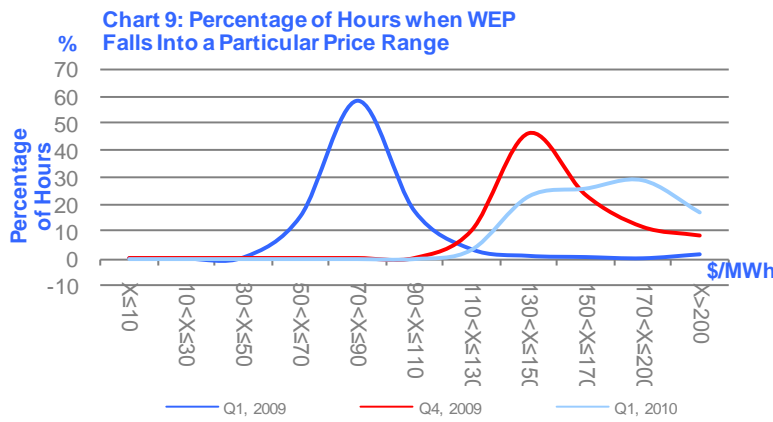


Chart 10: Percentage of Metered Energy Quantities when WEP Falls Into a Particular Price Range

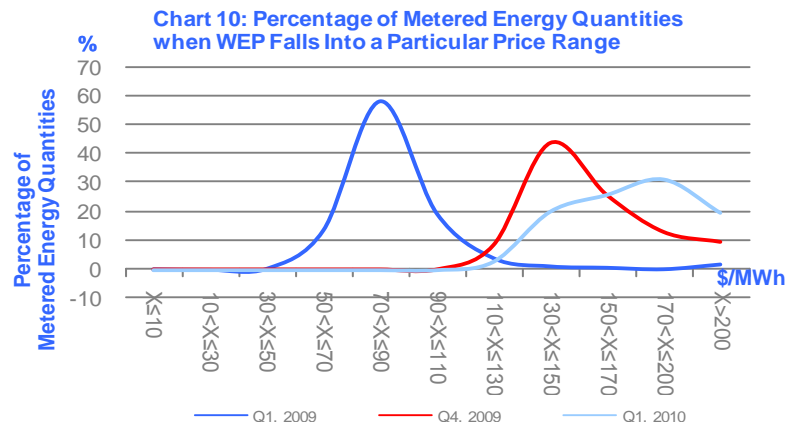


Chart 11: Correlation between WEP & Metered Energy Quantities

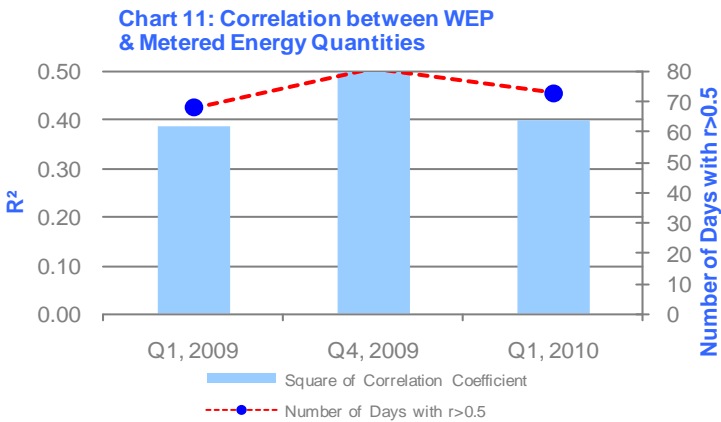
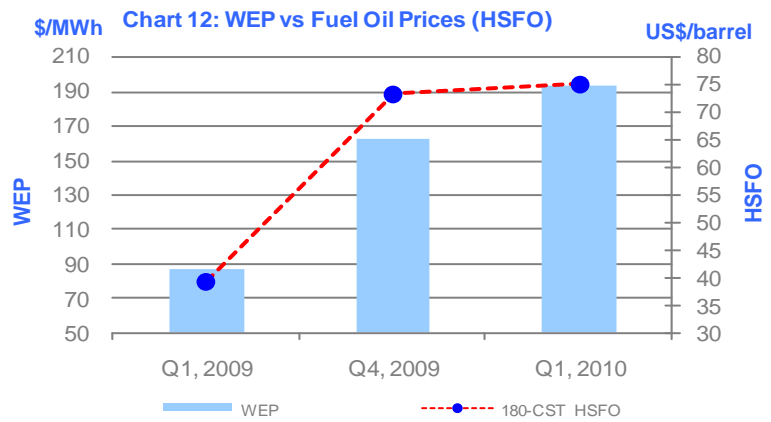


Chart 12: WEP vs Fuel Oil Prices (HSFO)



Ancillary Prices

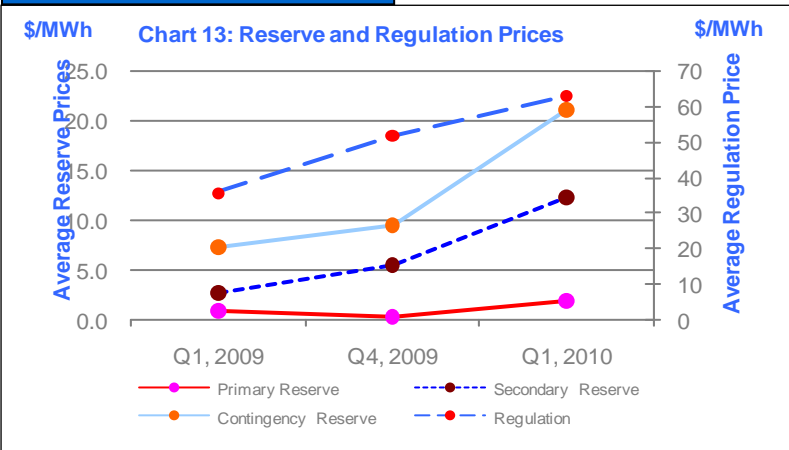


Table 2: Compliance Statistics for Q1 2010

No. of cases of potential rule breaches	830
Self-reports	3
Referrals/Complaints	827
MSCP initiatives	0
No. of determinations	1029
Rule breach	2
No rule breach	1015
No further action	12
Enforcement	2
No. of cases with enforcement action	
-Financial penalty	0
-Letter of non-compliance	2
Total amount of financial penalties	\$0
Total amount of costs	\$2,600

The Market Surveillance and Compliance Panel comprises 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.