

MSCP Market Watch

Fourth Quarter (Jan-Mar) 2006/07

Issue 3

Table 1: Indicators of Market Performance

	2005/06 Q4	2006/07 Q3 Q4	
Price Indicators			
<i>Energy (\$/MWh)</i>			
- USEP	113.58	125.08	125.11
- WEP	115.10	128.06	133.50
- VCHP	140.70	150.20	134.66
<i>Ancillary (\$/MWh)</i>			
- Primary Reserve	13.54	6.03	19.61
- Secondary Reserve	0.34	0.34	2.39
- Contingency Reserve	4.97	10.32	24.52
- Regulation	53.56	119.73	356.64
Average Reserve Cost (\$)	152,785	180,582	462,446
HSFO Spot (US\$/barrel)	50.28	43.29	45.30
Demand Indicators			
<i>Forecast Demand (MW)</i>			
- Average	4,213	4,414	4,390
- Peak	5,353	5,452	5,525
<i>Metered Energy Quantities (MW)</i>			
- Average	4,070	4,262	4,232
- Peak	5,224	5,309	5,350
Supply Indicators			
<i>Capacity Ratio (%)</i>			
- CCGT	81.89	74.84	67.82
- OCGT	0.13	0.26	0.44
- OT	42.63	41.75	40.70
- ST	16.95	25.84	28.70
Supply Cushion (%)	25.36	22.20	22.88
<i>Total Outages (MW)</i>			
- Planned	4,306,830	4,319,869	5,441,080
- Unplanned	14,176	0	751,550
- Forced	92,313	192,781	242,254
Offers less than \$100/MWh (%)	72.40	70.39	73.83

Market Performance

The average energy price for Q4 remained relatively unchanged on the back of flatter growth rates for demand and supply. However, energy prices were still subjected to some volatility due to the significant increase in forced outages.

In Q4, the capacity ratio for CCGT units continued to decline by 7.0%. In contrast, the ST capacity ratio continued to improve, rising to 28.7% compared to 17.0% during the same period in the previous year. This was mainly due to the increase in outages of CCGT units, including a unit undergoing commissioning, as market participants replaced the loss of CCGT capacity with ST capacity.

Prices for all three classes of reserve rose in Q4 compared to the last quarter. The increases in the average reserve prices were mainly due to the events on 6 January. On that day, the supply cushion dropped to a low of 11.7% due to forced outages. The commissioning of a 498MW CCGT unit also contributed to the higher reserve requirements. This resulted in primary reserve hitting its capped price of \$4,250/MWh for a period and contingency reserve hitting its capped price of \$3,250/MWh for two periods.

The MSCP also noted that the average regulation price hit a new high of \$356.6/MWh in Q4. The record was mainly due to the high average regulation price of \$719.5/MWh in January, which the MSCP has recently investigated. The average regulation price has since steadily declined, reaching \$141.9/MWh in March 2007.



Professor Lim Chin
for Chair, Market Surveillance and Compliance Panel
18 May 2007

Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

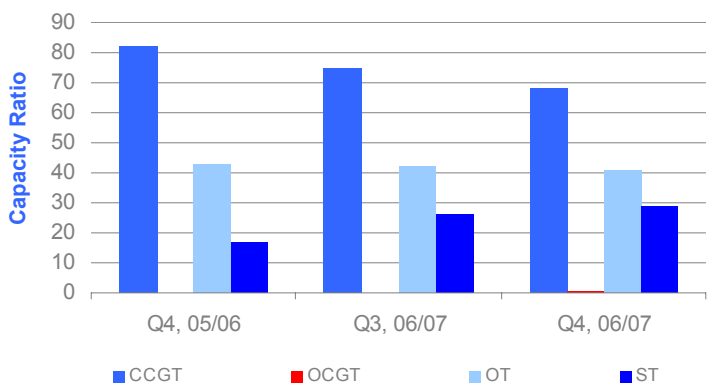


Chart 2: Relationship between USEP and Energy Supply Cushion - Q4 06/07

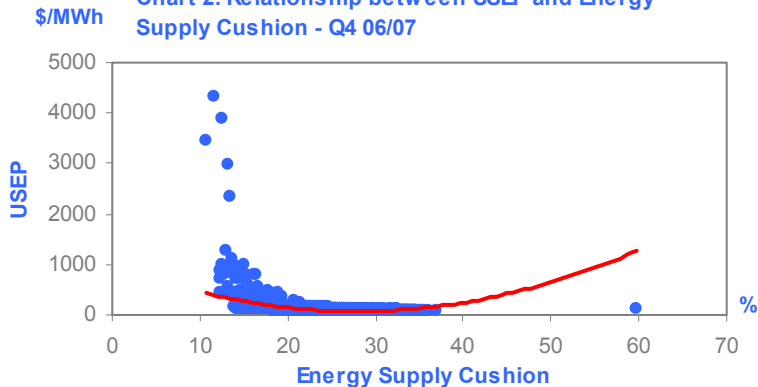
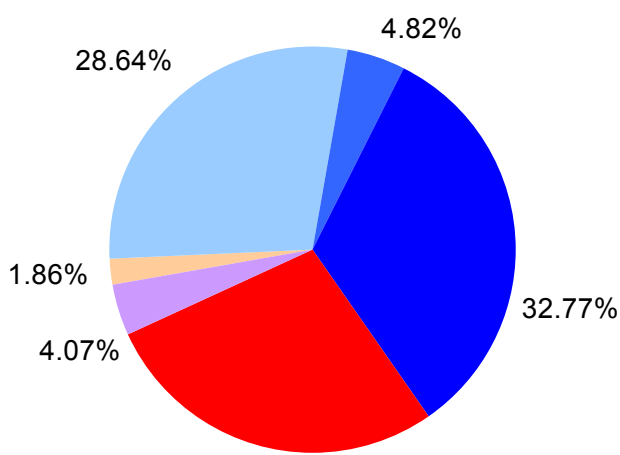
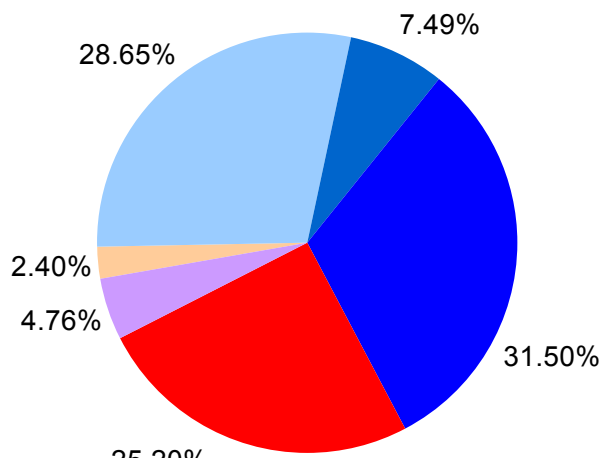


Chart 3: Comparison of Average Market Share by Generation Company Q4 06/07



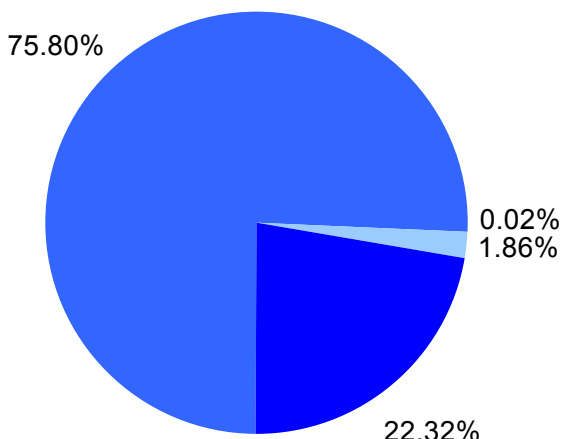
Based on Metered Energy Quantities

G1 G2 G3 G4 G5 G6



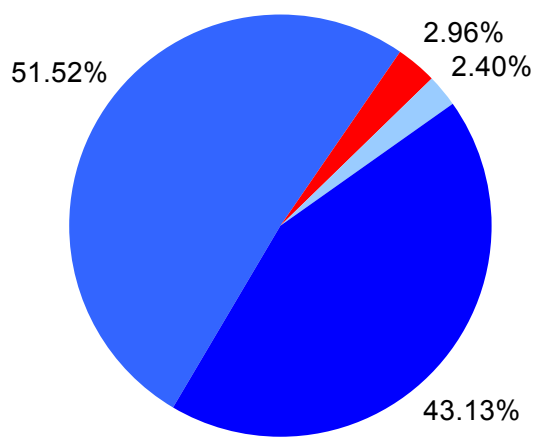
Based on Maximum Capacity

Chart 4: Comparison of Average Market Share by Generation Type Q4 06/07



Based on Metered Energy Quantities

CCGT OCGT



Based on Maximum Capacity

OT ST

Demand Indicators

Chart 5: Monthly Load Forecast Variation

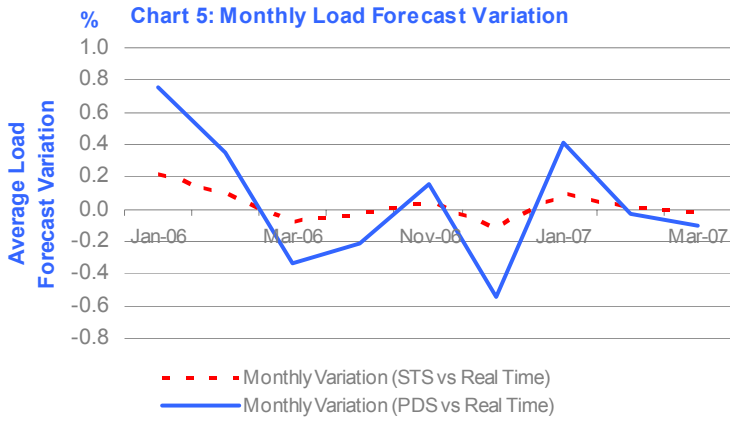
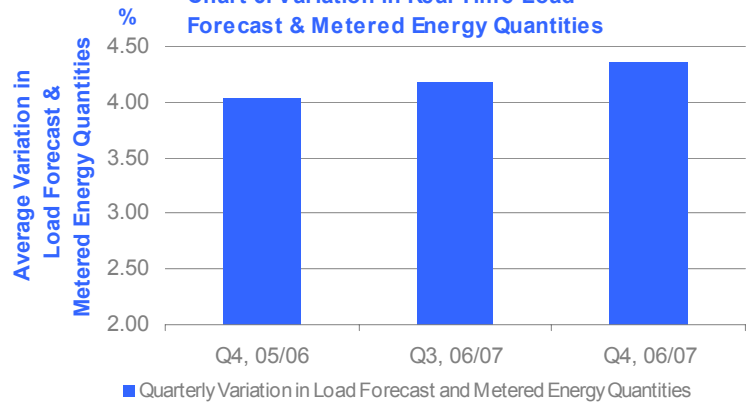


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



Energy Prices

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

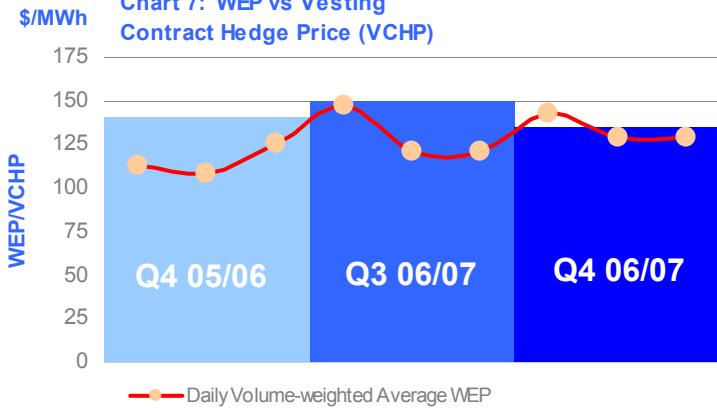


Chart 8: Comparison of Metered Energy Quantities

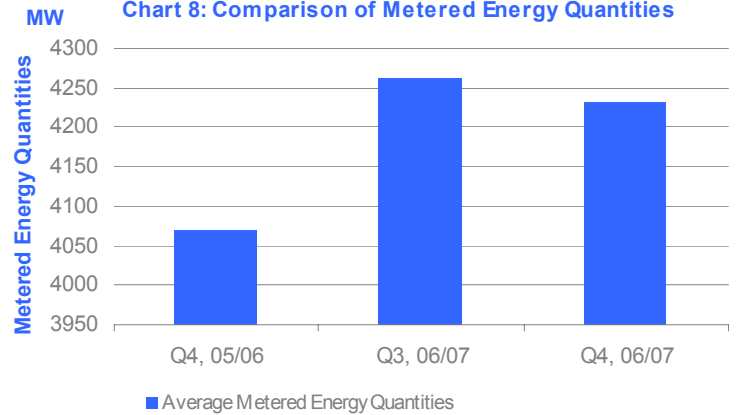


Chart 9: Percentage of Hours when WEP Falls Into a Particular Price Range

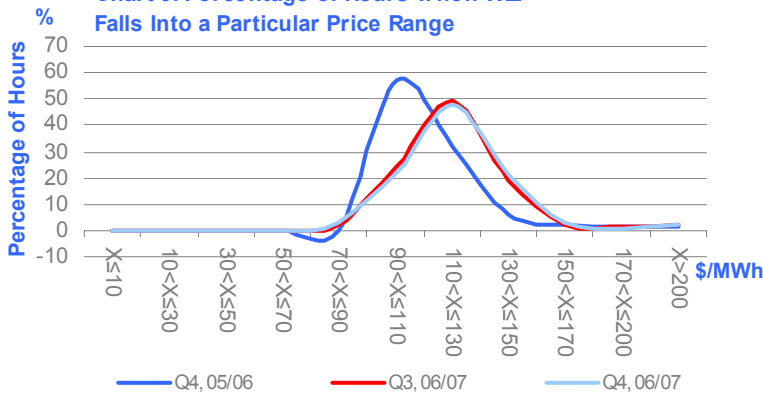


Chart 10: Percentage of Metered Energy Quantities when WEP Falls Into a Particular Price Range

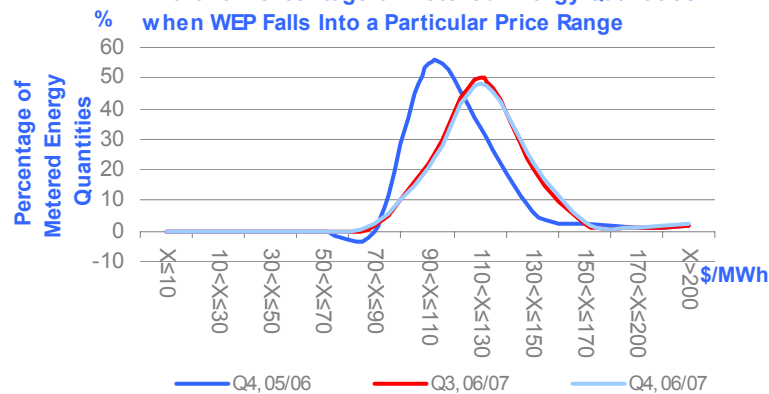


Chart 11: Correlation between WEP & Metered Energy Quantities

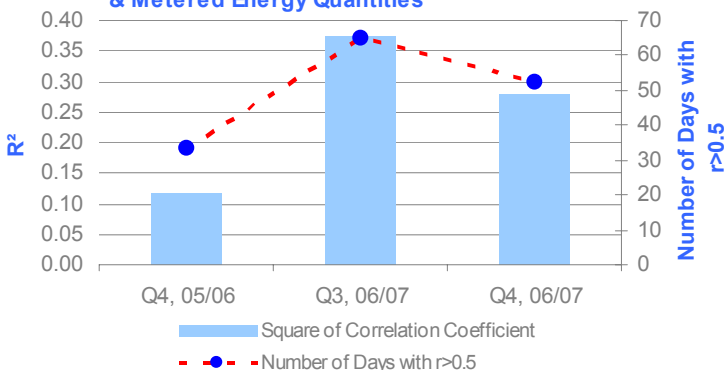
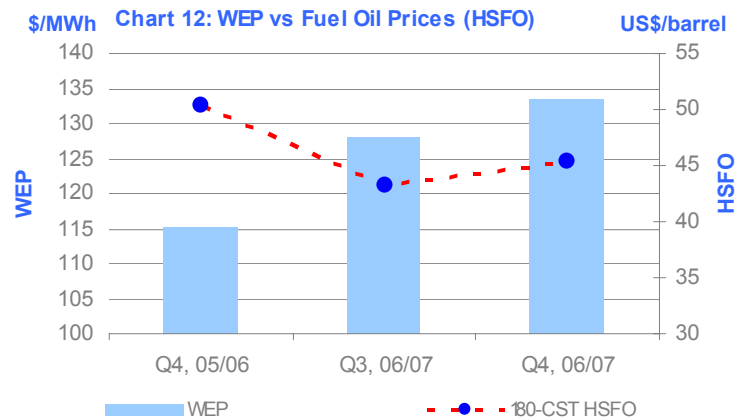
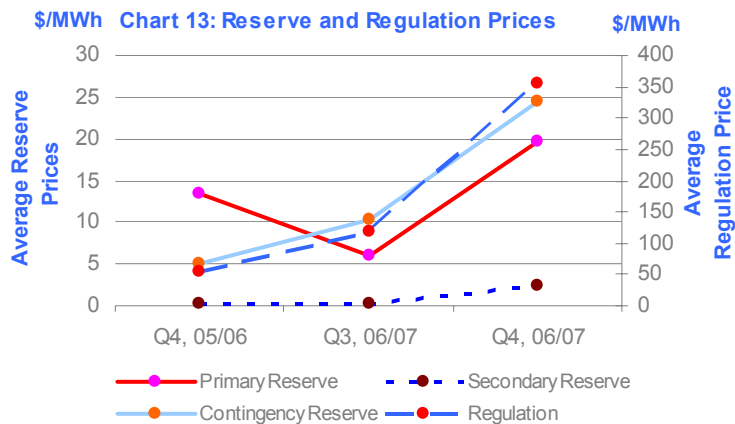


Chart 12: WEP vs Fuel Oil Prices (HSFO)



Ancillary Prices



Market Compliance

Table 2: Compliance Statistics for Q4 2006/07

No. of cases of potential rule breaches	397
<i>Self-reports</i>	7
<i>Referrals/Complaints</i>	390
<i>MSCP initiatives</i>	0
No. of determinations	860
<i>Rule breach</i>	8
<i>No rule breach</i>	800
<i>No further action</i>	52
Enforcement	
No. of cases with enforcement action	8
- <i>Financial penalty</i>	0
- <i>Letter of non-compliance</i>	8
Total amount of financial penalties	\$0
Total amount of costs	\$8,000

The Market Surveillance and Compliance Panel comprises the following persons:

- *Joseph Grimberg SC, Chair*
- *Lee Keh Sai*
- *Professor Lim Chin*
- *TPB Menon*
- *David Wong*

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