

# MSCP Market Watch

First Quarter (Apr-Jun) 2007/08

Issue 4

Table 1: Indicators of Market Performance

	2006/07		2007/08
	Q1	Q4	Q1
<b>Price Indicators</b>			
<i>Energy (\$/MWh)</i>			
- USEP	139.48	125.11	113.84
- WEP	140.78	133.50	115.35
- VCHP	139.44	134.66	121.14
<i>Ancillary (\$/MWh)</i>			
- Primary Reserve	32.39	19.61	2.15
- Secondary Reserve	1.97	2.39	0.14
- Contingency Reserve	11.61	24.52	3.72
- Regulation	56.84	356.64	62.07
Average Reserve Cost (\$)	364,315	462,446	65,167
HSFO Spot (US\$/barrel)	53.08	45.30	54.33
<b>Demand Indicators</b>			
<i>Forecast Demand (MW)</i>			
- Average	4,376	4,390	4,610
- Peak	5,446	5,525	5,675
<i>Metered Energy Quantities (MW)</i>			
- Average	4,229	4,232	4,449
- Peak	5,326	5,350	5,535
<b>Supply Indicators</b>			
<i>Capacity Ratio (%)</i>			
- CCGT	79.99	67.82	75.30
- OCGT	0.31	0.44	0.08
- OT	41.90	40.70	39.90
- ST	22.50	28.70	25.81
Supply Cushion (%)	24.09	22.86	21.82
<i>Total Outages (MW)</i>			
- Planned	5,184,928	6,128,788	5,304,059
- Unplanned	24,850	1,183,884	694,735
- Forced	141,835	270,704	64,430
Offers less than \$100/MWh (%)	65.22	76.59	74.26

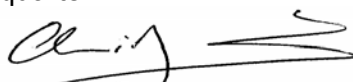
## Market Performance

Average energy prices for Q1 2007/08 dropped 9% qoq to \$113.8/MWh despite an increase in energy demand of 5%, a lower supply cushion and a lower percentage of offers below \$100/MWh. This drop was even more staggering in the ancillary market, as the average prices dropped by more than 80% in all classes of reserves. Although the regulation price was still higher by 9.2% yoy, it almost returned to the level last seen before the high regulation prices started in October 2006.

Lower energy price volatility was evident as slightly more than 80% of the energy prices fell between \$90/MWh and \$130/MWh this quarter, compared to 69.9% in Q4 2006/07 and 49.6% in Q1 2006/07.

This quarter's drop in energy prices and reduced energy price volatility were the result of improved plant availability, a lower volume of outages and a change in offer prices. A CCGT that had faced technical problems resumed operations, and a new CCGT became commercially operational. Average plant availability improved by 3.6%, led by a 9.3% rise in CCGT availability. In May 2007, overall plant availability crossed the 6,000MW mark for the first time since market start. Average outages dropped by around 20%, with lower outages recorded across anticipated and unanticipated outages. The ancillary market also saw the effects of improved supply in the energy market.

In its annual report for 2006/07, the MSCP observed that high prices tend to occur when the supply cushion drops below 15%. However, for periods when the supply cushion was less than 15%, the average energy price this quarter was only \$179.2/MWh, compared to \$808.4/MWh for the last quarter. This difference was due to offers of \$500/MWh or less increasing substantially from an average of 5,269MW to 5,929MW qoq. During periods with a tight supply cushion, the USEP exceeded \$500/MWh only 4.0% of the time this quarter, compared to 53.6% for the last quarter.



Professor Lim Chin  
for Chair, Market Surveillance and Compliance Panel  
14 August 2007

# Supply Indicators

Chart 1: Capacity Ratio of Generation Plants

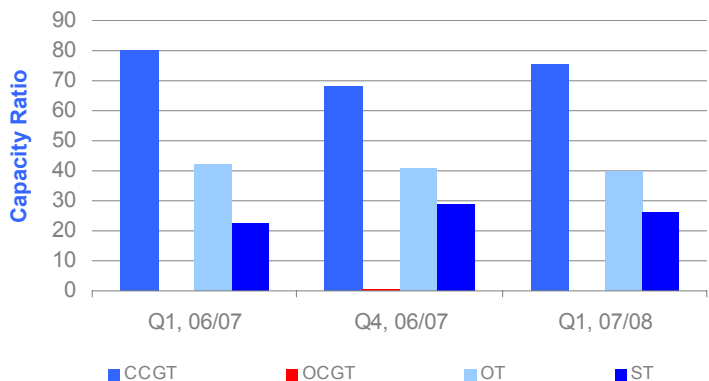


Chart 2: Relationship between USEP and Energy Supply Cushion - Q1 07/08

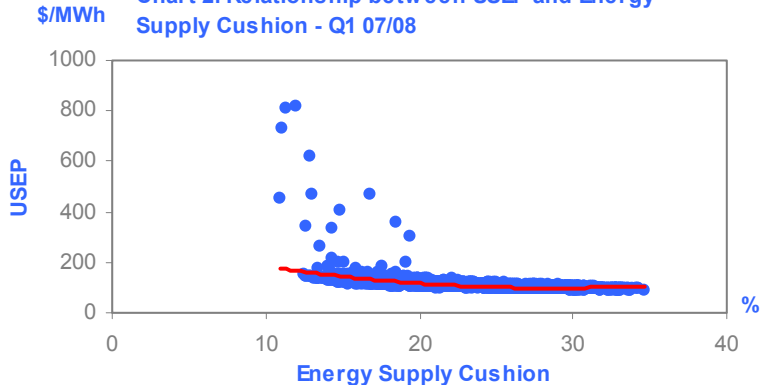
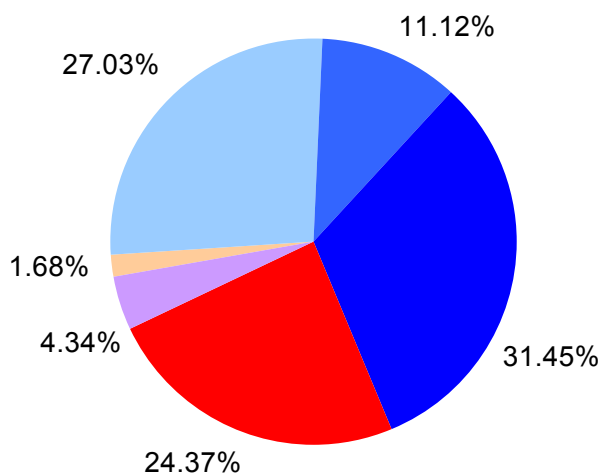
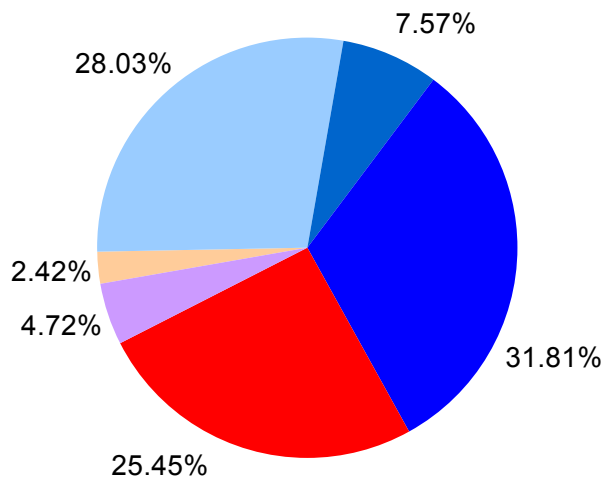


Chart 3: Comparison of Average Market Share by Generation Company Q1 07/08



Based on Metered Energy Quantities

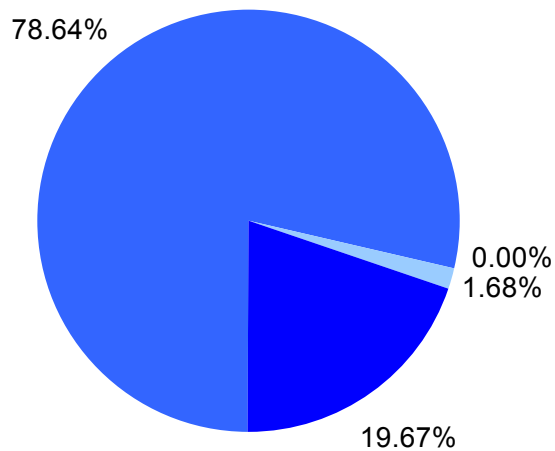
G1 G2 G3



Based on Maximum Generation Capacity

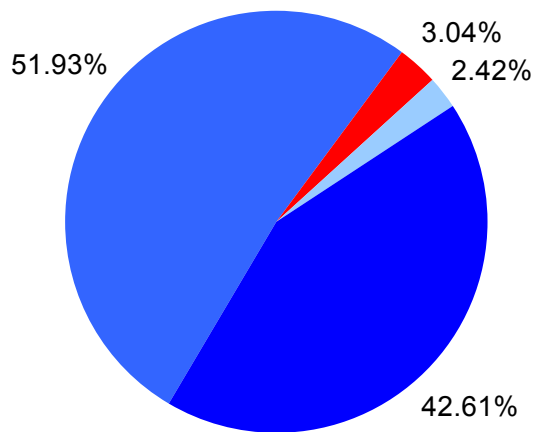
G4 G5 G6

Chart 4: Comparison of Average Market Share by Generation Type Q1 07/08



Based on Metered Energy Quantities

CCGT OCGT



Based on Maximum Generation Capacity

OT ST

## Demand Indicators

Chart 5: Monthly Load Forecast Variation

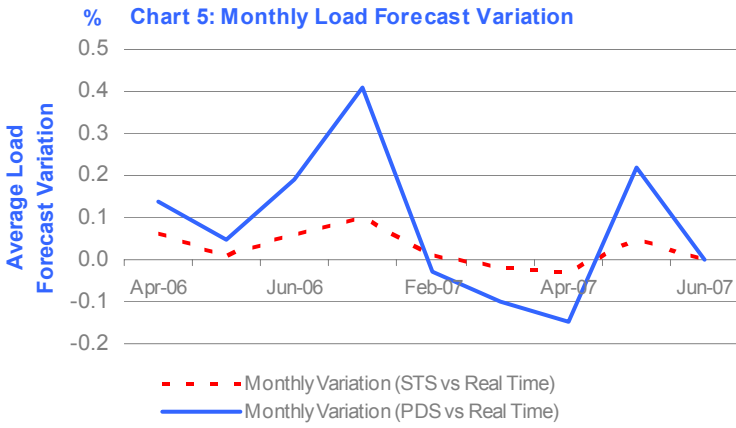
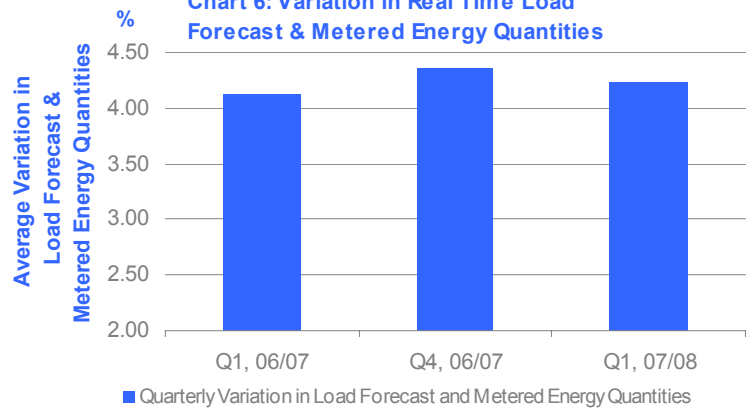


Chart 6: Variation in Real Time Load Forecast & Metered Energy Quantities



## Energy Prices

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

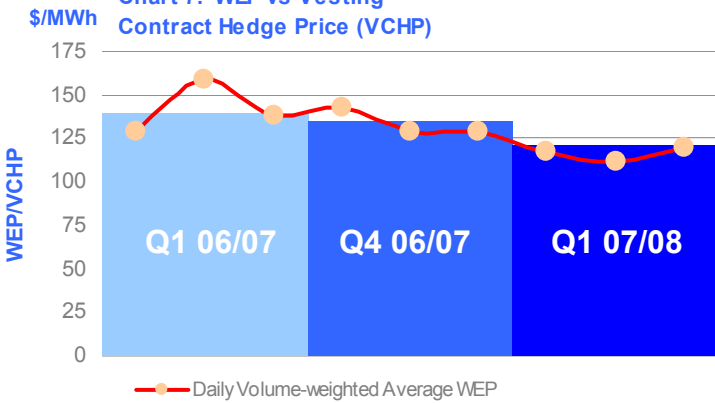


Chart 8: Comparison of Metered Energy Quantities

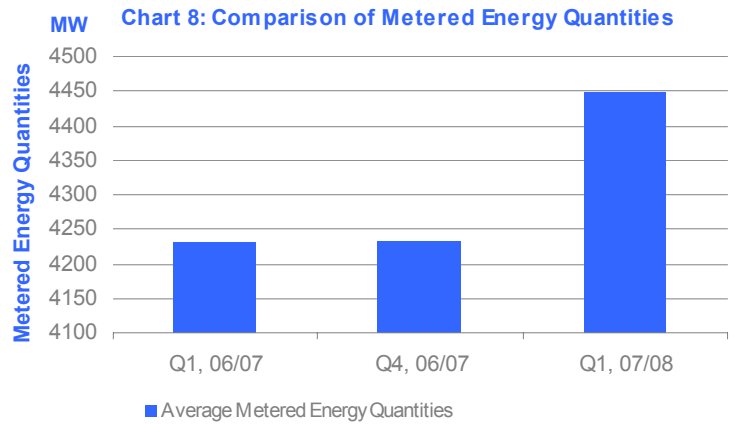


Chart 9: Percentage of Hours when WEP Falls Into a Particular Price Range

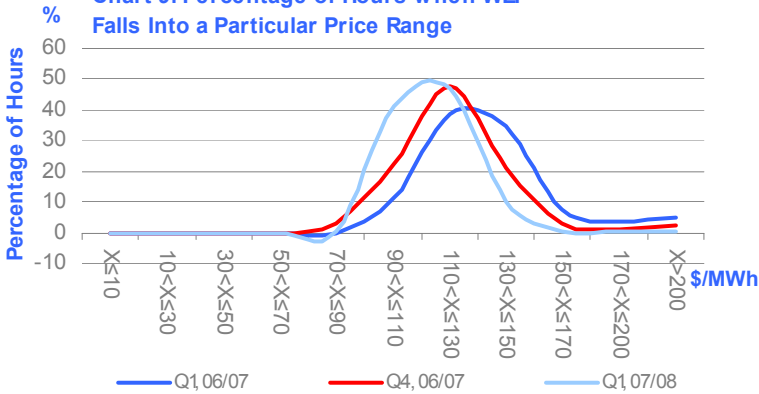


Chart 10: Percentage of Metered Energy Quantities when WEP Falls Into a Particular Price Range

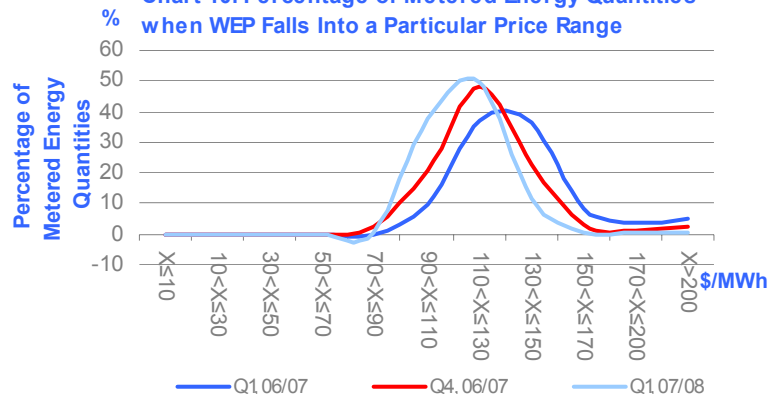


Chart 11: Correlation between WEP & Metered Energy Quantities

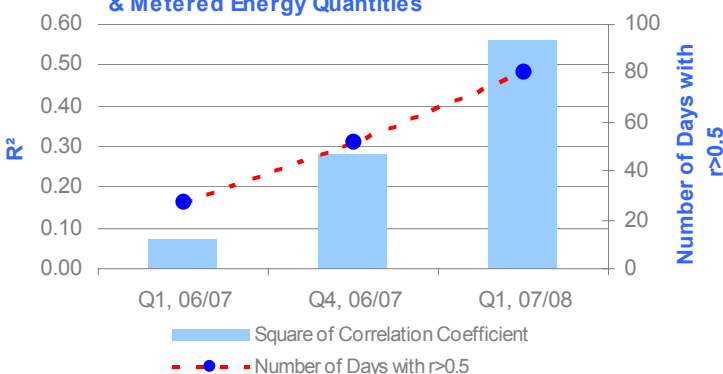
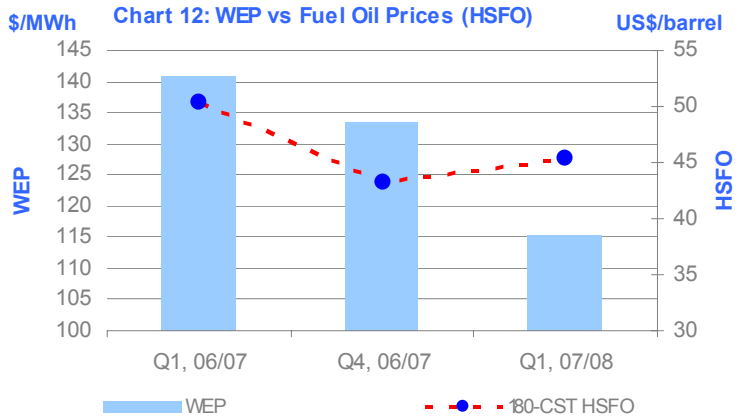
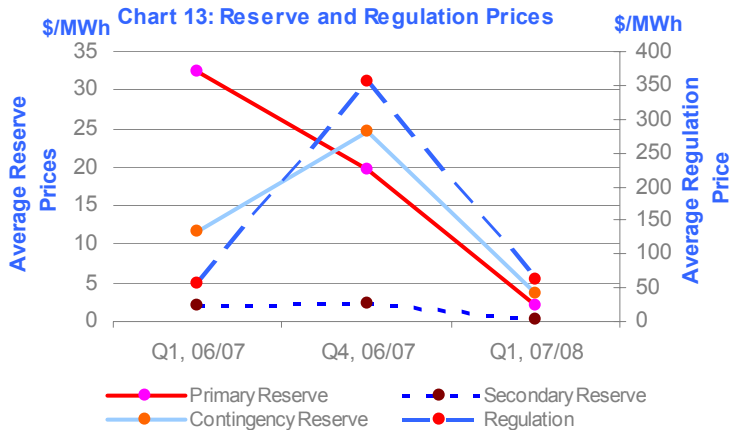


Chart 12: WEP vs Fuel Oil Prices (HSFO)



## Ancillary Prices



## Market Compliance

Table 2: Compliance Statistics for Q1 2007/08

<b>No. of cases of potential rule breaches</b>	<b>451</b>
Self-reports	5
Referrals/Complaints	446
MSCP initiatives	0
<b>No. of determinations</b>	<b>459</b>
Rule breach	0
No rule breach	384
No further action	75
<b>Enforcement</b>	
No. of cases with enforcement action	0
-Financial penalty	0
-Letter of non-compliance	0
Total amount of financial penalties	\$0
Total amount of costs	\$0

The Market Surveillance and Compliance Panel comprises the following persons:

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

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