Market Performance

Q2 2009 saw the average 180-CST HSFO rise by 36.6%, from US$39.21/barrel to US$53.57/barrel. The average USEP saw a significant increase of 116.5%, from $85.64/MWh to $185.39/MWh. Nevertheless, the VCHP for Q2 2009 was reduced by 31% to $115.26/MWh.

After declining for two quarters, the average forecast demand finally picked up in Q2 2009, rising by 9.9% to 4,689MW. Forecast peak demand also rose by 7.5% to 5,876MW. However, overall demand levels remained lower than in Q2 2008.

The supply cushion in Q2 2009 declined by 3.64%, from 26.60% to 22.96%. This was despite an overall reduction of 10.4% in the outage level. Additionally, the quantity of offers made below $100/MWh declined by 7.49% to 69.76%. This decline appeared in line with increased fuel costs. The combination of a lower supply cushion and fewer low-priced offers contributed to the overall increase in the USEP.

Prices of ancillary services in Q2 2009 rose in tandem with the USEP. Similarly, the regulation prices also increased from $35.98/MWh to $81.80/MWh.

In Q2 2009, the USEP rose above $1,000/MWh for 21 periods, with 17 of them occurring between 20 and 23 April, 3 on 13 May and 1 on 10 June. From 20 to 23 April, the price spikes had coincided with lower offer quantities from CCGT units. Three CCGT units were taken out for maintenance 20-21 April, with one returning on 22 April. Compared to the average demand for the month of April, average demand was higher by 4.7% for these four days, which caused a corresponding decline in the supply cushion by 3.0%. Reduction volume of low-priced offers also contributed to the high USEPs. On 13 May, three periods of high prices coincided with the forced outage of two CCGT units and higher demand. One price spike occurred during an off-peak period on 10 June, which was caused by a momentary dip in the supply cushion.

In June, the MSCP submitted to the EMA an investigation report and recommendations concerning the price spikes between 20 and 23 April. Noting that the average USEP rose significantly above the LRMC in Q2 2009, the MSCP has been investigating the market outcomes and will be submitting a further report to the EMA. The MSCP will continue to closely monitor market prices and advise the EMA as appropriate.
**Demand Indicators**

- **Chart 5:** Monthly Load Forecast Variation
  - Monthly Variation (STS vs Real Time)
  - Monthly Variation (PDS vs Real Time)

**Energy Prices**

- **Chart 7:** WEP vs Vesting Contract Hedge Price (VCHP)
  - Q2, 2008
  - Q1, 2009
  - Q2, 2009

- **Chart 8:** Comparison of Metered Energy Quantities
  - WEP
  - 180-CST HSFO

- **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
  - $R^2$
  - Number of Days with $r>0.5$

- **Chart 12:** WEP vs Fuel Oil Prices (HSFO)
  - WEP
  - 180-CST HSFO

**Demand Indicators**

- **Chart 6:** Variation in Real Time Load Forecast & Metered Energy Quantities
  - Q2, 2008
  - Q1, 2009
  - Q2, 2009

**Energy Prices**

- **Chart 13:** WEP vs Fuel Oil Prices (HSFO)
  - WEP
  - 180-CST HSFO
Ancillary Prices

Chart 13: Reserve and Regulation Prices

Table 2: Compliance Statistics for Q2 2009

<table>
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<th>Category</th>
<th>Figures</th>
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<td>Total amount of costs</td>
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The Market Surveillance and Compliance Panel comprises the following persons:
- Thean Lip Ping, Chair
- Lee Keh Sai
- Professor Lim Chin
- TPB Menon

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