

WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY
REGULATOR

10 May-16 May 2009

Summary

Average spot prices for the mainland regions ranged from \$29/MWh in Queensland to \$31/MWh in the other three mainland regions. Prices fell for the second week in a row.

While the average spot price in Tasmania was \$40/MWh, the spot price was relatively volatile, exceeding \$100/MWh on 36 occasions early in the week, with sustained periods of very low prices (around \$1.30/MWh) later in the week, following increased rainfall. The majority of the higher prices occurred at off-peak times. There was one negative price (-\$165/MWh) on Friday 15 May. Although there were high spot prices during the week, as they did not exceed three times the weekly average price, these events are not analysed any further in this report.

Spot market prices

Figure 1 sets out the volume weighted average prices for 10 May to 16 May and the financial year to date across the National Electricity Market (NEM). It compares these prices with price outcomes from the previous week and year to date respectively.

Figure 1: Volume weighted average spot price by region (\$/MWh)

| | Qld | NSW | VIC | SA | Tas |
|-----------------------------------|------|-----|------|------|------|
| Average price for 10 May – 16 May | 29 | 31 | 31 | 31 | 40 |
| Financial year to date | 37 | 44 | 52 | 74 | 49 |
| % change from previous week | -7% | -7% | -19% | -17% | -28% |
| % change from year to date | -38% | -1% | 1% | -33% | -11% |

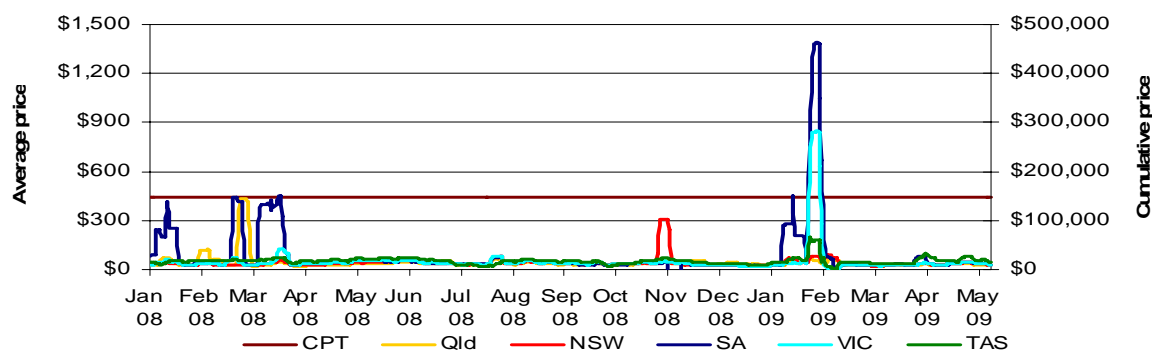
*The percentage change between last week's average spot price and the average price for the previous week.

**The percentage change between the average spot price for the current financial year to date and the average spot price over the similar period for the previous financial year.

The AER provides further information if the spot price exceeds three times the weekly average. The price did not exceed three times the weekly average in any region. Longer term market trends are attached in Appendix A.

Figure 2 shows the seven day rolling cumulative price for each region together with the Cumulative Price Threshold (CPT) (and the equivalent seven day time weighted average price).

Figure 2: Seven day rolling cumulative price and CPT



Financial markets

Figures 3 to 10 show futures contract¹ prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 18 May. Figure 3 shows the base futures contract prices for the next three calendar years, and the three year average. Also shown are percentage changes compared to the previous week.

Figure 3: Base calendar year futures contract prices (\$/MWh)

| | QLD | | NSW | | VIC | | SA | |
|--------------------|-----|------|-----|------|-----|------|----|----|
| Calendar Year 2010 | 43 | -2%* | 45 | -2%* | 48 | -2%* | 59 | 0% |
| Calendar Year 2011 | 48 | -4% | 51 | -2% | 53 | -2%* | 69 | 0% |
| Calendar Year 2012 | 62 | 0% | 61 | 0% | 69 | 0% | 69 | 0% |
| Three year average | 51 | -2% | 52 | -1% | 57 | -1% | 66 | 0% |

Source: d-cyphaTrade www.d-cyphatrade.com.au

* there were trades in these products.

Figure 4 shows the \$300 cap contract price for the first quarter of 2010 and the 2009-10 financial year and the percentage change from the previous week.

Figure 4: \$300 cap contract prices (\$/MWh)

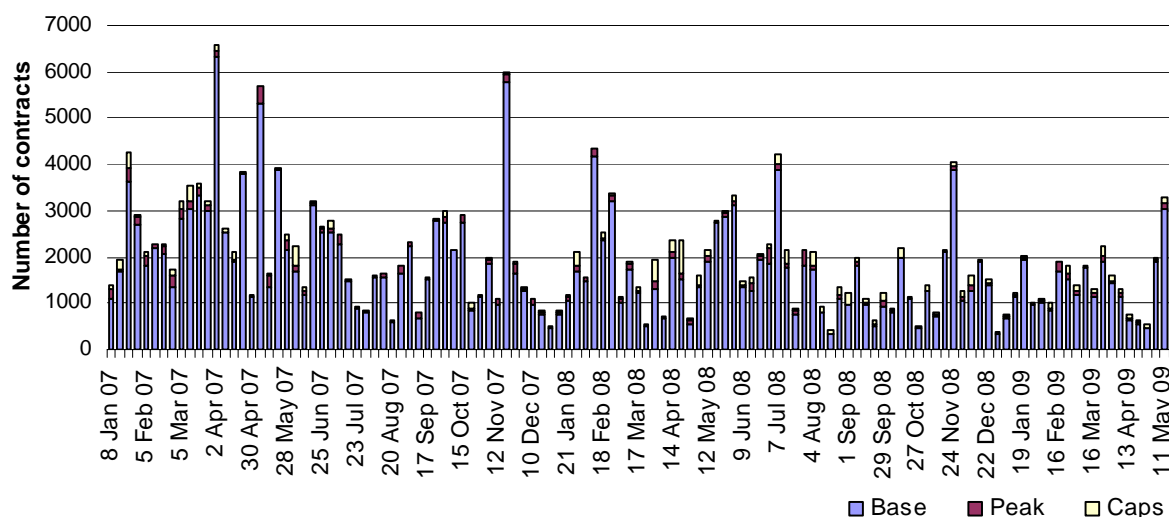
| | QLD | | NSW | | VIC | | SA | |
|-------------------|-----|-----|-----|-----|-----|-----|----|----|
| Q1 2010 | 27 | -2% | 21 | 0% | 35 | 0% | 45 | 0% |
| Financial 2009-10 | 11 | -6% | 10 | -6% | 12 | -3% | 17 | 0% |

Source: d-cyphaTrade www.d-cyphatrade.com.au

Note: there were no trades in these products.

Figure 5 shows the weekly trading volumes for base, peak and cap contracts. The date represents the end of the trading week.

Figure 5: Number of exchange traded contracts per week

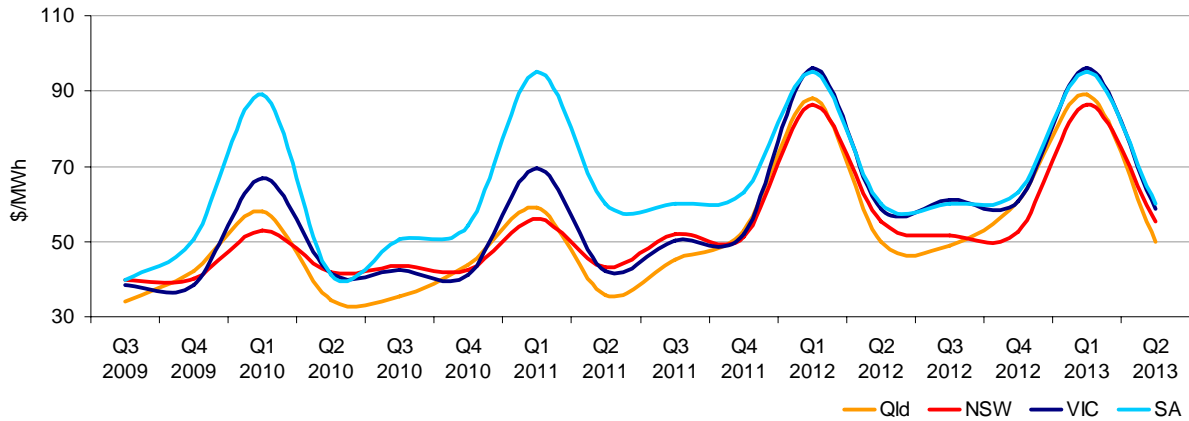


Source: d-cyphaTrade www.d-cyphatrade.com.au

¹ Futures contracts on the SFE are listed by d-cyphaTrade (www.d-cyphatrade.com.au). A futures contract is typically for one MW of electrical energy per hour based on a fixed load profile. A base load profile is defined as the base load period from midnight to midnight Monday to Sunday over the duration of the contract quarter. A peak load profile is defined as the peak-period from 7 am to 10 pm Monday to Friday (excluding Public holidays) over the duration of the contract quarter.

Figure 6 shows the prices for base contracts for each quarter for the next four financial years.

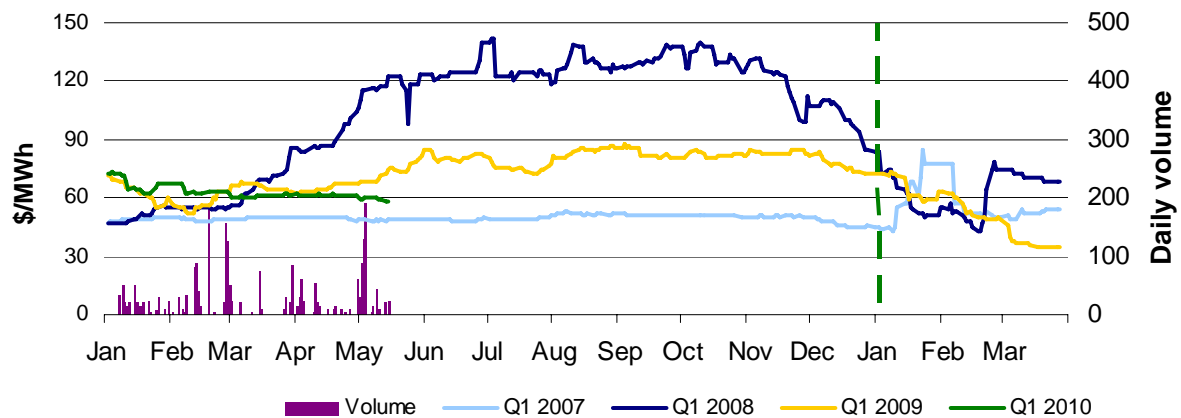
Figure 6: Quarterly base future prices Q3 2009 – Q2 2013



Source: d-cyphaTrade www.d-cyphatrade.com.au

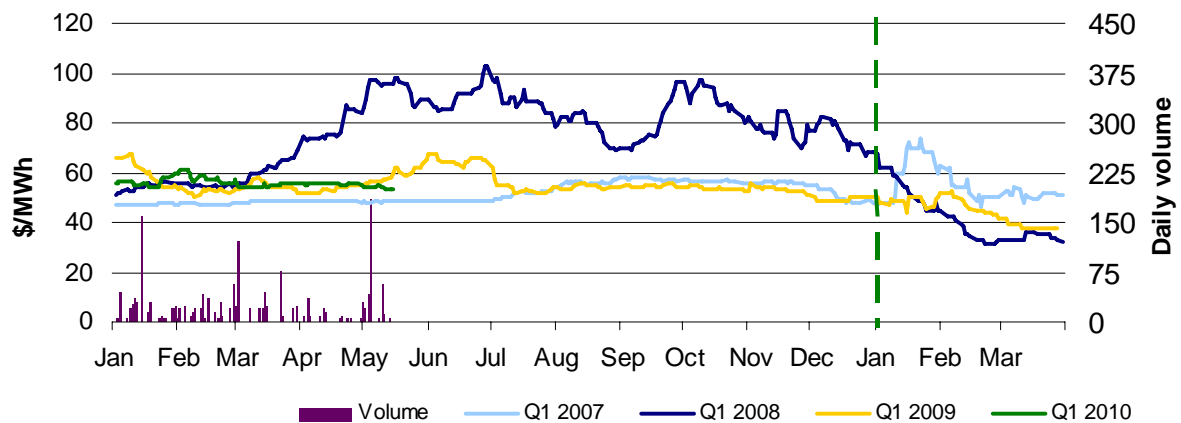
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009 and 2010. Also shown is the daily volume of Q1 2010 base contracts traded. The vertical dashed line signifies the start of the Q1 period for which the contracts are being purchased.

Figure 7: Queensland Q1 2007, 2008, 2009 and 2010



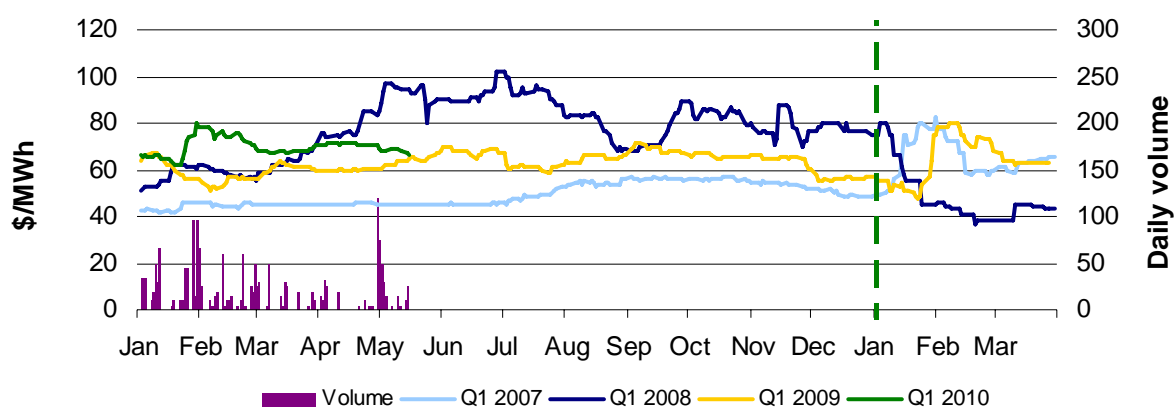
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 8: New South Wales Q1 2007, 2008, 2009 and 2010



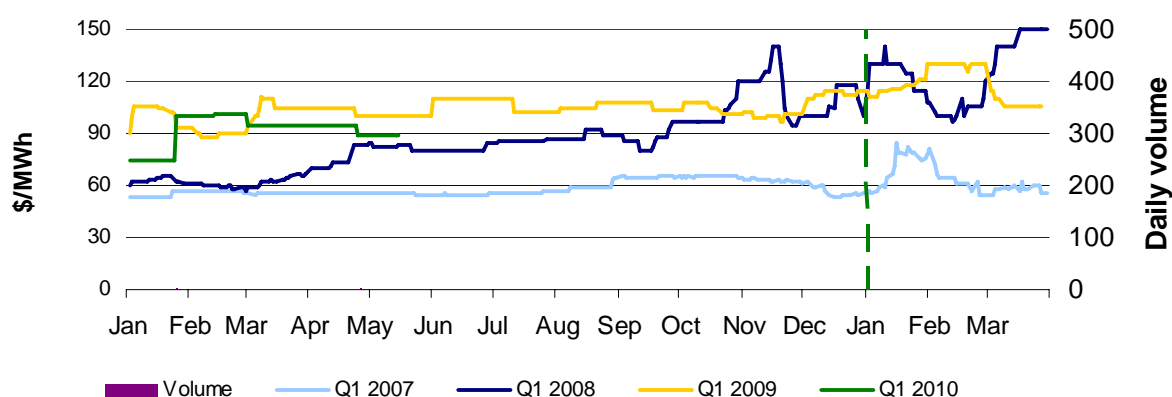
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 9: Victoria Q1 2007, 2008, 2009 and 2010



Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 10: South Australia Q1 2007, 2008, 2009 and 2010



Source: d-cyphaTrade www.d-cyphatrade.com.au

Spot market forecasting variations

The AER is required under the National Electricity Rules to determine whether there is a significant variation between the forecast spot price published by the National Electricity Market Management Company the actual spot price and, if there is a variation, state why the AER considers the significant price variation occurred. It is not unusual for there to be significant variations as demand forecasts vary and as participants react to changing market conditions. There were 130 trading intervals throughout the week where actual prices varied significantly from forecasts². This compares to the weekly average in 2008 of 130 counts. Reasons for these variances are summarised in Figure 11³.

Figure 11: Reasons for variations between forecast and actual prices

| | Availability | Demand | Network | Combination |
|---------------------------|--------------|--------|---------|-------------|
| % of total above forecast | 2% | 30% | 0% | 0% |
| % of total below forecast | 65% | 1% | 0% | 2% |

² A trading interval is counted as having a variation if the actual price differs significantly from the forecast price either four or 12 hours ahead.

³ The table summarises (as a percentage) the number of times when the actual price differs significantly from the forecast price four or 12 hours ahead and the major reason for that variation. The reasons are classified as availability (which means that there is a change in the total quantity or price offered for generation), demand forecast inaccuracy, changes to network capability or as a combination of factors (when there is not one dominant reason). An instance where both four and 12 hour ahead forecasts differ significantly from the actual price will be counted as two variations.

Demand and bidding patterns

The AER reviews demand, network limitations and generator bidding as part of its market monitoring to better understand the drivers behind price variations. Figure 12 shows the change in total available capacity in each region from the previous week and at the price levels shown, for peak periods⁴. For example, in Queensland 150 MW more capacity was offered at prices under \$20/MWh this week compared to the previous week. Also included is the change in average demand during peak periods, for comparison.

Figure 12: Changes in available generation and average demand compared to the previous week during peak periods

| MW | <\$20/MWh | Between \$20 and \$50/MWh | Total availability | Change in average demand |
|--------------|------------|---------------------------|--------------------|--------------------------|
| Qld | 150 | -36 | -4 | 149 |
| NSW | -211 | 355 | -264 | 218 |
| VIC | 682 | -277 | 383 | -13 |
| SA | 47 | 57 | 34 | -90 |
| TAS | 147 | -39 | -40 | 6 |
| TOTAL | 815 | 60 | 109 | 270 |

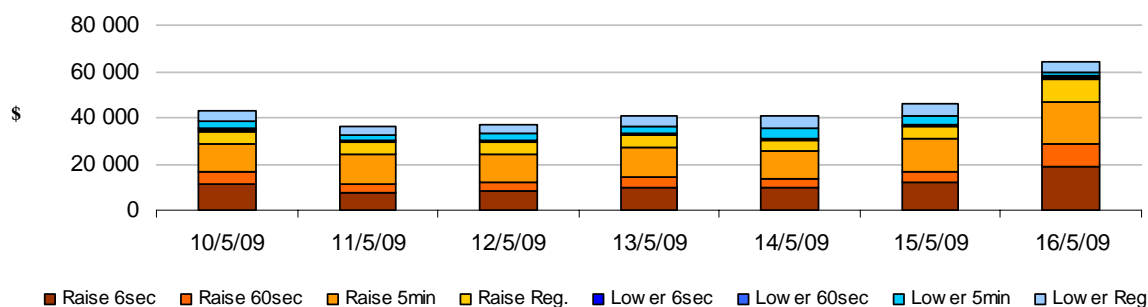
Ancillary services market

The total cost of frequency control ancillary services (FCAS) on the mainland for the week was \$232 000 or less than one per cent of turnover in the energy market.

The total cost of FCAS in Tasmania for the week was \$77 000 or approximately one per cent of turnover in the energy market.

Figure 13 shows the daily breakdown of cost for each FCAS for the NEM.

Figure 13: Daily frequency control ancillary service cost



Australian Energy Regulator

May 2009

⁴ A peak period is defined as between 7 am and 10 pm on weekdays, which aligns with the SFE contract definition.

Detailed NEM Price and Demand Trends

for Weekly Market Analysis
10 May - 16 May 2009



Table 1: Financial year to date spot market volume weighted average price

| Financial year | QLD | NSW | VIC | SA | TAS |
|----------------------|------|-----|-----|------|------|
| 2008-09 (\$/MWh) YTD | 37 | 44 | 52 | 74 | 49 |
| 2007-08 (\$/MWh) YTD | 60 | 44 | 51 | 109 | 56 |
| Change* | -38% | -1% | 1% | -33% | -11% |
| 2007-08 (\$/MWh) | 58 | 44 | 51 | 101 | 57 |

Table 2: NEM turnover

| Financial year | NEM Turnover** (\$, billion) | Energy (TWh) |
|----------------|------------------------------|--------------|
| 2008-09 YTD | \$8.412 | 182 |
| 2007-08 | \$11.125 | 208 |

Table 3: Recent monthly and quarterly spot market volume weighted average price and turnover

| Volume weighted average (\$/MWh) | QLD | NSW | VIC | SA | TAS | Turnover (\$, billion) |
|----------------------------------|------|-----|-----|------|-----|------------------------|
| Jan-09 | 44 | 57 | 190 | 374 | 85 | 1.962 |
| Feb-09 | 42 | 47 | 38 | 47 | 40 | 0.709 |
| Mar-09 | 27 | 26 | 26 | 35 | 37 | 0.466 |
| Apr-09 | 34 | 38 | 40 | 38 | 69 | 0.622 |
| May-09 MTD | 30 | 32 | 35 | 35 | 48 | 0.295 |
| Q1 2009 | 37 | 43 | 87 | 161 | 55 | 3.136 |
| Q1 2008 | 80 | 34 | 50 | 243 | 54 | 3.358 |
| Change* | -53% | 28% | 73% | -34% | 1% | 1.09% |

Table 4: ASX energy futures contract prices at 18 May

| | QLD | | NSW | | VIC | | SA | |
|--------------------------------|------|------|------|------|------|------|------|------|
| | Base | Peak | Base | Peak | Base | Peak | Base | Peak |
| Q1 2010 | | | | | | | | |
| Price on 11 May (\$/MW) | 60 | 102 | 55 | 90 | 69 | 123 | 89 | 102 |
| Price on 18 May (\$/MW) | 58 | 99 | 53 | 87 | 67 | 122 | 89 | 102 |
| Open interest on 18 May | 1935 | 135 | 1288 | 22 | 1537 | 35 | 8 | 0 |
| Traded in the last week (MW) | 100 | 60 | 72 | 10 | 56 | 5 | 0 | 0 |
| Traded since 1 Jan 09 (MW) | 2395 | 155 | 1682 | 22 | 1764 | 50 | 8 | 0 |
| Settled price for Q1 09(\$/MW) | 35 | 48 | 38 | 48 | 62 | 114 | 102 | 200 |

Table 5: Changes to availability of low priced generation capacity offered to the market

| Comparison: | QLD | NSW | VIC | SA | TAS | NEM |
|----------------------------|------|------|------|------|------|-------|
| March 09 with March 08 | | | | | | |
| MW Priced <\$20/MWh | -557 | -386 | 119 | -246 | -50 | -1121 |
| MW Priced \$20 to \$50/MWh | 562 | 347 | 129 | -1 | -2 | 1035 |
| April 09 with April 08 | | | | | | |
| MW Priced <\$20/MWh | -755 | -678 | 323 | 366 | -41 | -785 |
| MW Priced \$20 to \$50/MWh | 698 | -218 | -214 | -33 | 57 | 290 |
| May 09 with May 08 | | | | | | |
| MW Priced <\$20/MWh | -556 | -459 | 592 | 239 | -166 | -350 |
| MW Priced \$20 to \$50/MWh | 541 | 166 | 47 | 35 | 222 | 1012 |

*Note: These percentage changes are calculated on VWA prices prior to rounding

** Estimated value