

# WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY  
REGULATOR

18 May – 25 May 2008

## Summary

Average prices for the week on the mainland ranged from \$40/MWh in Queensland to \$57/MWh in Victoria. Prices in Tasmania averaged \$70/MWh. These prices represent an increase compared to the previous week in all regions except South Australia due to higher demand and reduced availability of low-priced generation..

In the financial markets, base futures prices were higher across New South Wales, Queensland and Victoria compared to the previous week.

## Spot market prices

Figure 1 sets out the volume weighted average price for this week and this financial year to date across the NEM regions and compares them 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
Ave price for 18 May – 25 May	40	49	57	52	70
Financial year to 25 May	59	44	51	108	56
% change from previous week*	10%	14%	1%	-7%	8%
% change from year to date**	41%	-4%	1%	103%	18%

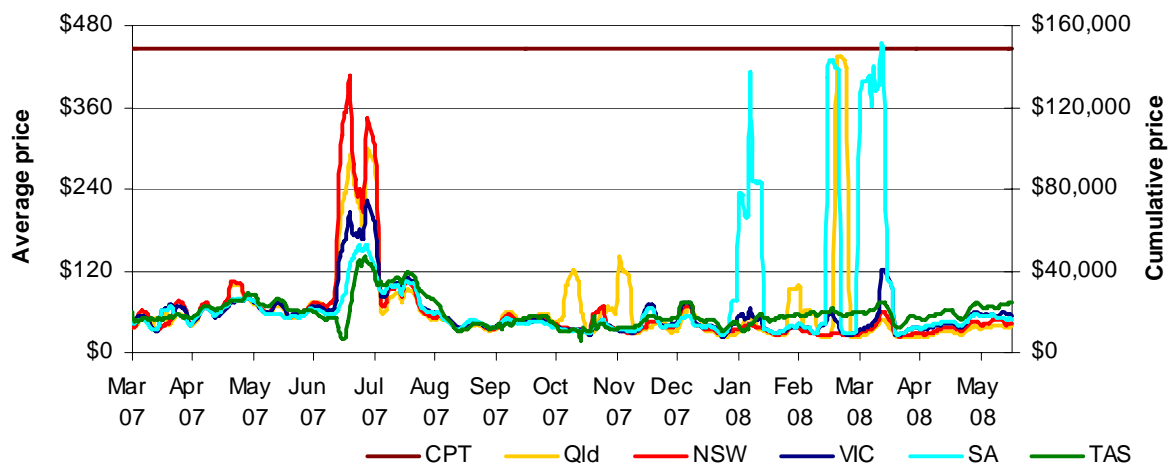
\*The percentage change between last week's average spot price and the average price for the previous week.

\*\*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. Queensland and New South Wales regions recorded prices greater than three times the weekly average. Details of these events are attached in Appendix A. Longer term market trends are attached in Appendix B.

Figure 2 shows the seven day rolling cumulative price for each region together with the CPT (and the equivalent seven day time-weighted average price) for the last 15 months.

**Figure 2: Seven day rolling cumulative price and CPT**



## Financial markets

Figures 3 to 10 show futures contract<sup>1</sup> prices traded on the Sydney Futures Exchange as at close of trade on Monday 26 May. Figure 3 shows the financial year base futures contract prices for this year and the next two years, and the three year average. Also shown are percentage changes compared to a week earlier.

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

	QLD		NSW		VIC		SA	
Financial 2008-09	55	7%	51	5%	52	4%	64	0%
Financial 2009-10	51	5%	53	3%	53	3%	55	0%
Financial 2010-11	52	1%	53	0%	67	1%	47	6%
Three year average	53	4%	52	3%	57	2%	55	2%

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

Figure 4 shows the \$300 cap contract price for the first quarter of 2009 and the 2009 calendar year and the change from the previous week.

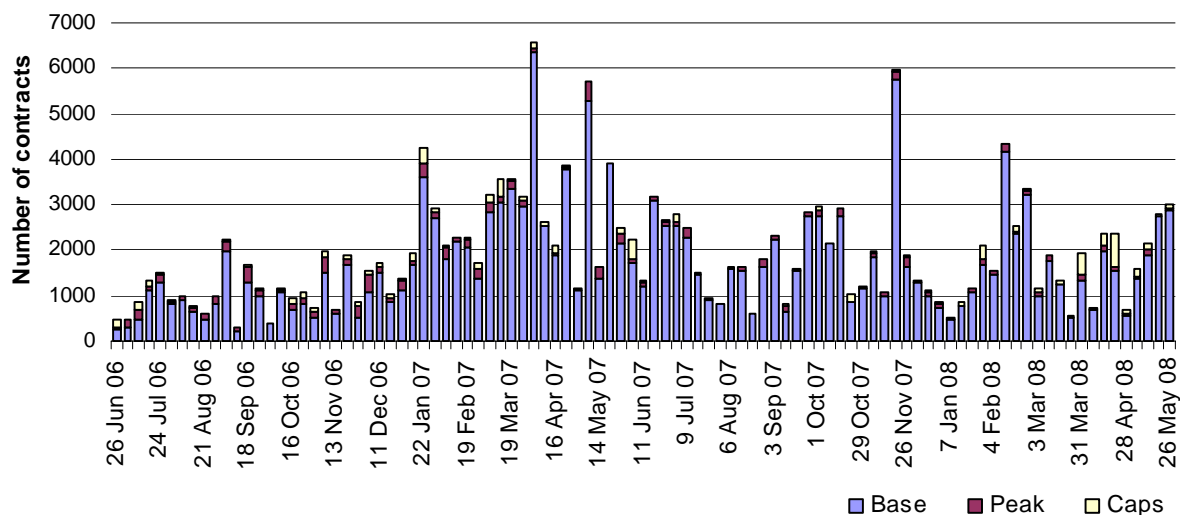
**Figure 4: \$300 cap contract prices (\$/MWh)**

	QLD		NSW		VIC		SA	
Q1 2009 price	40	12%	27	0%	26	-4%	46	2%
Calendar 2009	15	8%	13	0%	12	0%	15	2%

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

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

**Figure 5: Number of exchange traded contracts per week**

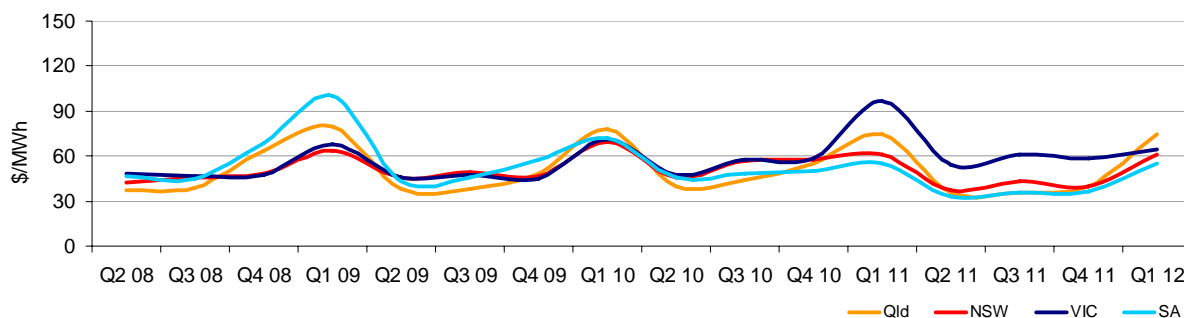


Source: d-cyphaTrade www.d-cyphatrade.com.au

<sup>1</sup> 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 years.

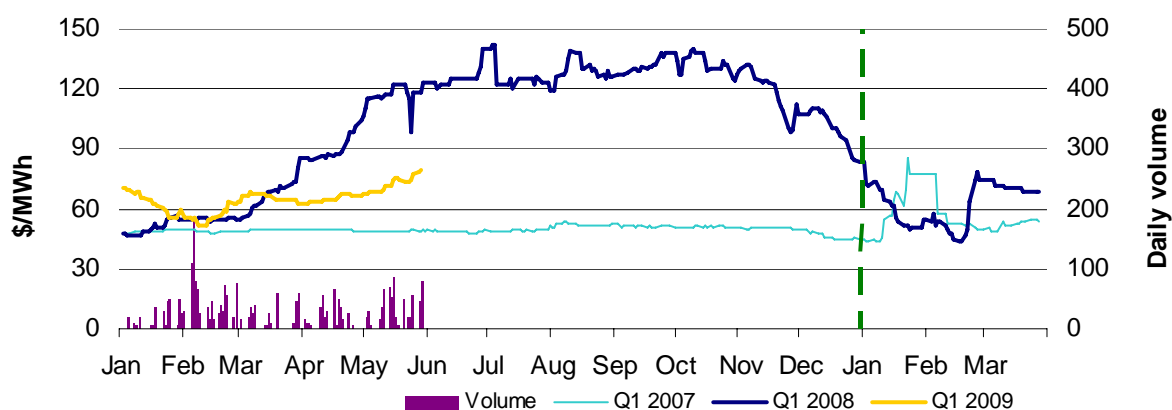
**Figure 6: Quarterly base future prices 2008 - 2011**



Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

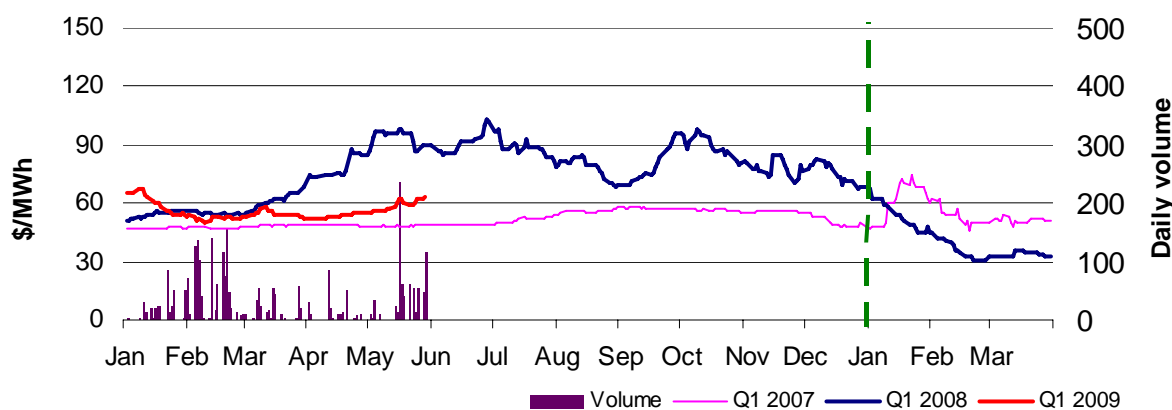
Figures 7-10 compares for each region the closing daily base contract price for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 09 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

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



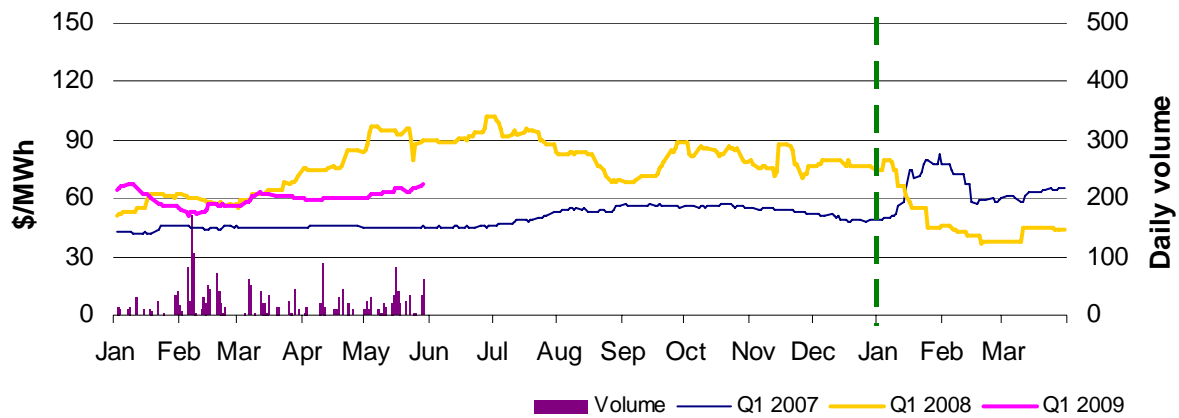
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



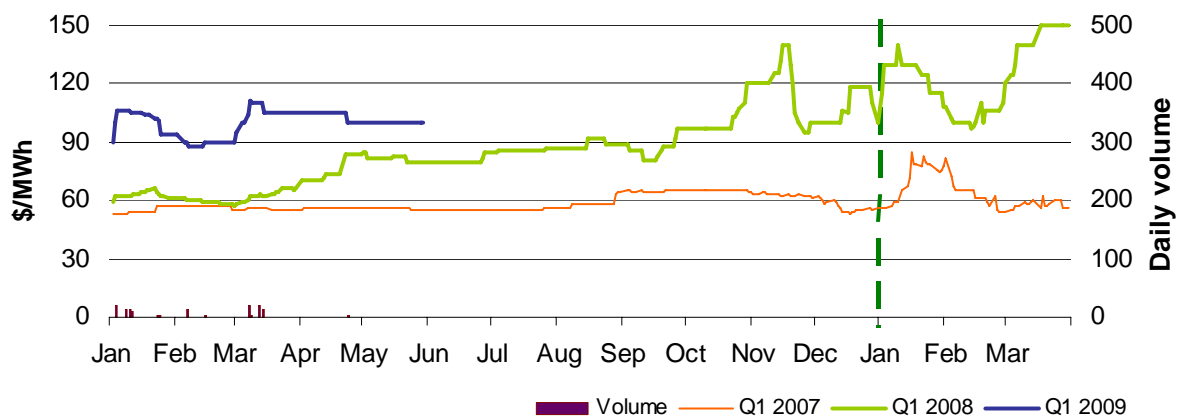
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



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

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



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

### Spot market forecasting variations

The AER is required by the National Electricity Rules to determine whether there is a significant variation between the forecast spot price published by NEMMCO and the actual spot price and state why the AER considers that 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. For the week, there were 124 trading intervals where actual prices significantly varied from forecasts<sup>2</sup>. This compares to the weekly average in 2007 of 125 counts. Reasons for these variances are summarised in Figure 11.<sup>3</sup>

**Figure 11: Reasons for variations between forecast and actual prices**

	Availability	Demand	Network	Combination
Price is higher than forecast	12%	47%	0%	9%
Price is lower than forecast	4%	18%	0%	10%

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

<sup>3</sup> The table summarises (as a percentage) the number of times when the actual price differs significantly from the forecast price four or twelve 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 twelve and four 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 our market monitoring to better understand the drivers behind price variations. Figure 12 shows changes to the offer price and available capacity of generation in each region for the on-peak periods only<sup>4</sup>. For example, in Queensland 187 MW less was offered at prices less than \$20/MWh this week compared to the previous week. Also included is the change in average demand during peak periods for comparison.

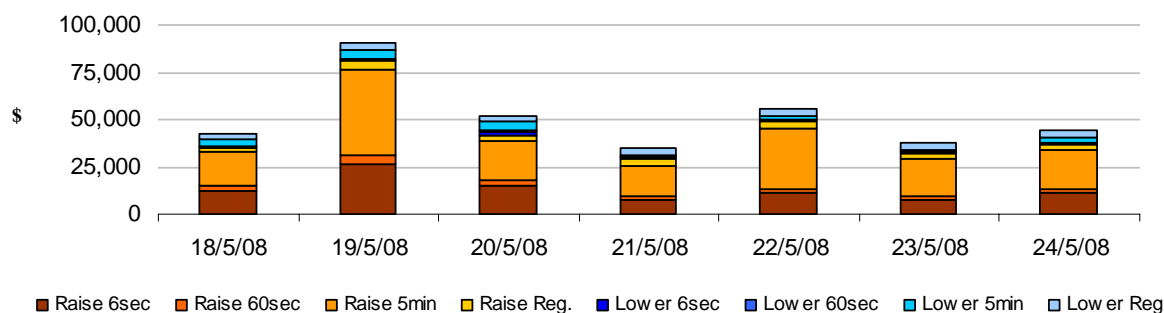
**Figure 12: Changes in available generation compared to the previous week during peak times**

\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	-187	36	281	-55
New South Wales	428	116	1,139	374
Victoria	524	-55	585	278
South Australia	58	-5	142	60
Tasmania	-199	-26	-66	63
Snowy	0	-48	-2	-4
Total	624	17	2,079	717

## Ancillary services market

The total cost of ancillary services on the mainland for the week was \$270 000 or 0.2 per cent of turnover in the energy market. The total cost of ancillary services in Tasmania for the week was \$88 000 or 0.6 per cent of the turnover in the Tasmanian energy market. Figure 13 shows the daily breakdown of cost for each frequency control ancillary service.

**Figure 13: Daily frequency control ancillary service cost**



<sup>4</sup> Peak periods is defined as between 7 am and 10 pm on weekdays, which aligns with the SFE contract definition.

# APPENDIX A:

## Detailed Market Analysis



18 May – 24 May 2008

**National:** Spot prices within the national market are regularly aligned with conditions in one region reflected across all others. There were two occasions where the spot price aligned across the regions and the New South Wales price was greater than three times the New South Wales weekly average price of \$44/MWh – the New South Wales spot price has been used as a proxy national price under these conditions as New South Wales is located in the centre of the NEM.

### Sunday, 18 May

<b>6:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	133.82	87.39	86.93
Demand (MW)	26 519	25 687	25 501
Available capacity (MW)	33 178	33 326	33 151
<b>6:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	141.63	114.00	145.19
Demand (MW)	27 101	26 419	26 289
Available capacity (MW)	33 395	33 357	33 121

Conditions at the time saw demand across the market 830 MW higher than forecast four hours ahead and 1000 MW higher than that forecast 12 hours ahead. Available capacity was close to that forecast four and 12 hours ahead.

There was no other significant rebidding.

# Appendix B: Detailed NEM Price and Demand Trends



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

Financial year	QLD	NSW	SNOWY	VIC	SA	TAS
2007-08 (\$/MWh) YTD	59	44	32	51	108	56
2006-07 (\$/MWh) YTD	42	46	31	51	53	48
Change (YTD)	41%	-4%	0%	1%	103%	18%
2006-07 (\$/MWh)	57	67	38	61	59	51

**Table 2: NEM turnover**

Financial year	NEM Turnover* (\$, billion)	Energy (TWh)
2007-08 YTD	\$10.1	186
2006-07	\$12.7	206
2005-06	\$7.9	201
Change (2005-06 to 2006-07)	61%	2.7%

\* estimated value

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

Volume weighted average (\$/MWh)	QLD	NSW	SNOWY	VIC	SA	TAS	Turnover (\$, billion)
Jan-08	52	36	28	45	186	48	0.94
Feb-08	161	28	24	41	207	58	1.30
Mar-08	31	37	29	65	325	57	1.12
Apr-08	29	34	28	41	44	56	0.60
May-08	39	45	36	56	53	68	0.66
Q1 2007	60	57	29	75	69	50	3.26
Q1 2008	80	34	27	50	243	54	3.36
Change	34%	-40%	-8%	-33%	252%	9%	

**Table 4: ASX energy futures contract prices at 27 May**

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2009								
Price on 19 May (\$/MW)	74	133	59	96	64	109	100	160
Price on 26 May (\$/MW)	80	134	64	104	68	114	100	160
Open interest on 26 May	1883	130	1836	66	1349	387	145	0
Traded in the last week (MW)	221	20	288	0	140	5	0	0
Traded since 1 Jan 08	2651	261	2945	68	2042	360	155	0
Settled price for Q1 08(\$/MW)	68	97	32	42	43	65	152	322

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

Comparison:	QLD	NSW	SNOWY	VIC	SA	TAS	NEM
March 08 with March 07							
MW Priced <\$20	134	-130	27	-59	46	-19	-1
MW Priced \$20 to \$50	7	1,087	463	-100	-51	27	1434
April 08 with April 07							
MW Priced <\$20	1,048	1,029	0	-201	-139	41	1777
MW Priced \$20 to \$50	-45	827	527	-97	150	60	1422
May 08 with May 07							
MW Priced <\$20	544	588	-74	-189	-10	-72	786
MW Priced \$20 to \$50	72	281	404	-51	-40	18	685