

# WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY  
REGULATOR

27 April – 3 May 2008

## Summary

Average prices for the week on the mainland ranged from \$39/MWh in Queensland to \$58/MWh in Victoria. Prices in Tasmania averaged \$70/MWh. These prices represent around a 40 per cent increase compared to the previous week as a result of cooler conditions driving increased demand and a decrease in generator availability.

In the financial markets base calendar and financial year prices increased slightly. In Victoria cap contracts for the first quarter of 2009 increased by 14 per cent 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 27 April – 3 May	39	47	58	56	70
Financial year to 3 May	61	44	51	112	55
% change from previous week*	41%	41%	52%	38%	39%
% change from year to date**	48%	-2%	2%	110%	20%

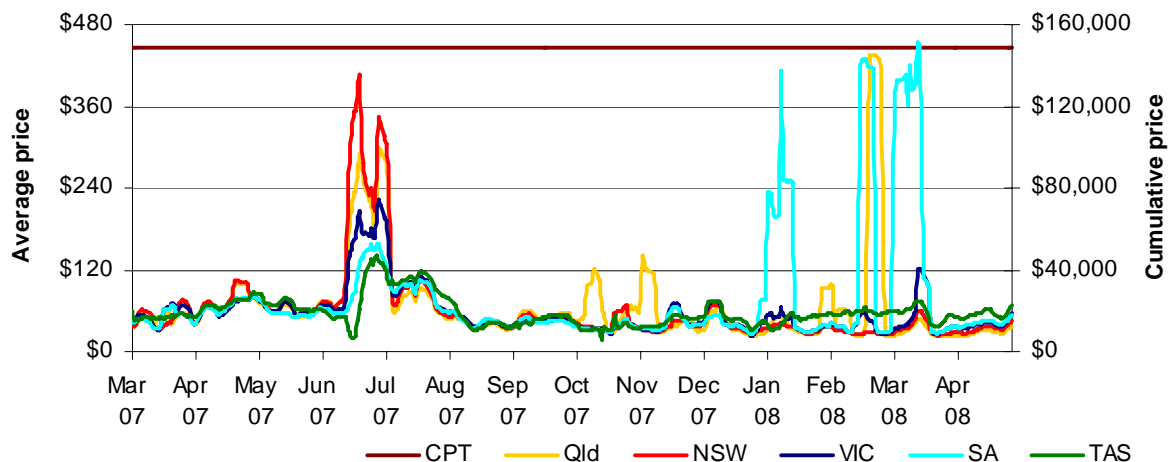
\*The percentage change between last week's average spot price and the average price for the previous week.

\*\*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. There was one spot price greater than three times the weekly average in Queensland, which is detailed 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).

**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 5 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 2009	48	2%	47	3%	50	4%	64	0%
Financial 2010	48	1%	51	0%	51	2%	54	0%
Financial 2011	52	0%	52	0%	53	0%	44	0%
Three year average	49	1%	50	1%	51	2%	54	0%

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

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

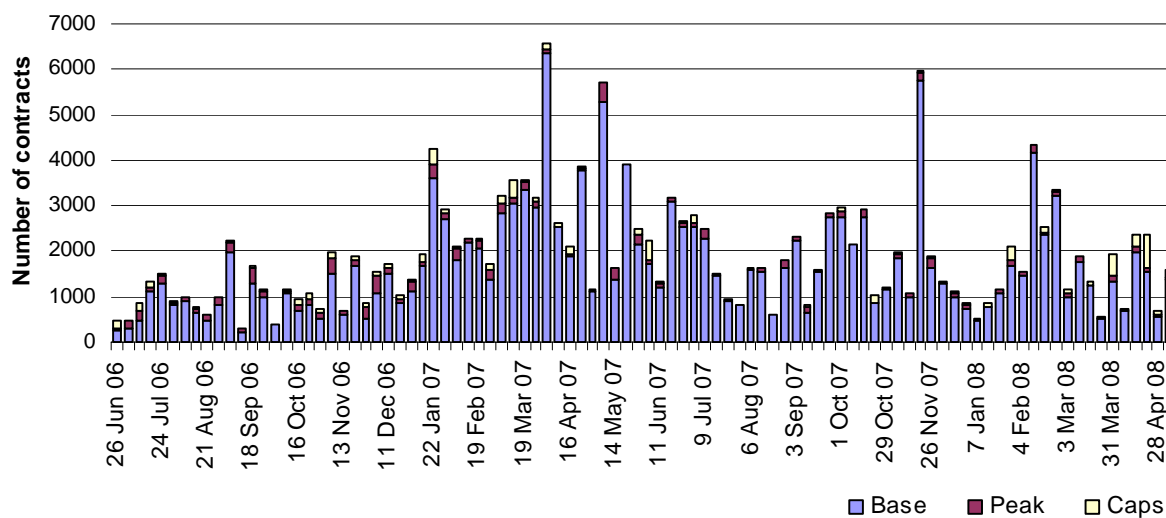
**Figure 4: \$300 cap contract prices (\$/MWh)**

	QLD		NSW		VIC		SA	
Q1 2009 price	33	0%	24	0%	27	14%	45	0%
Calendar 2009	13	0%	12	0%	11	8%	15	0%

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**

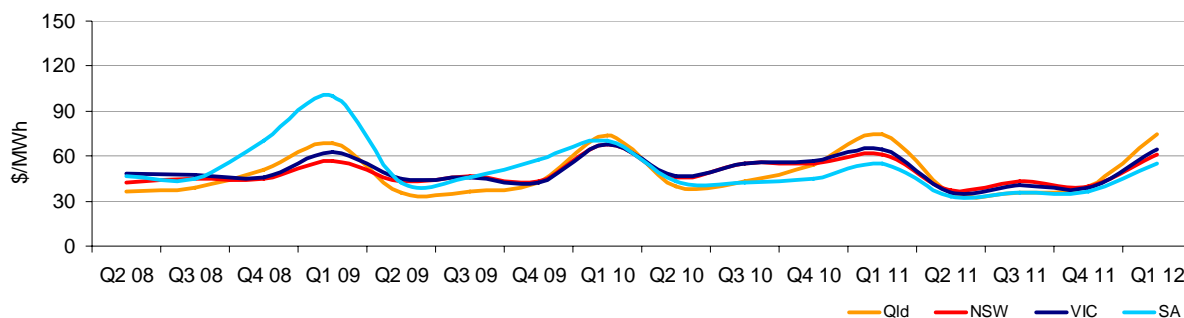


Source: d-cyphaTrade www.d-cyphatrade.com.au

<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)

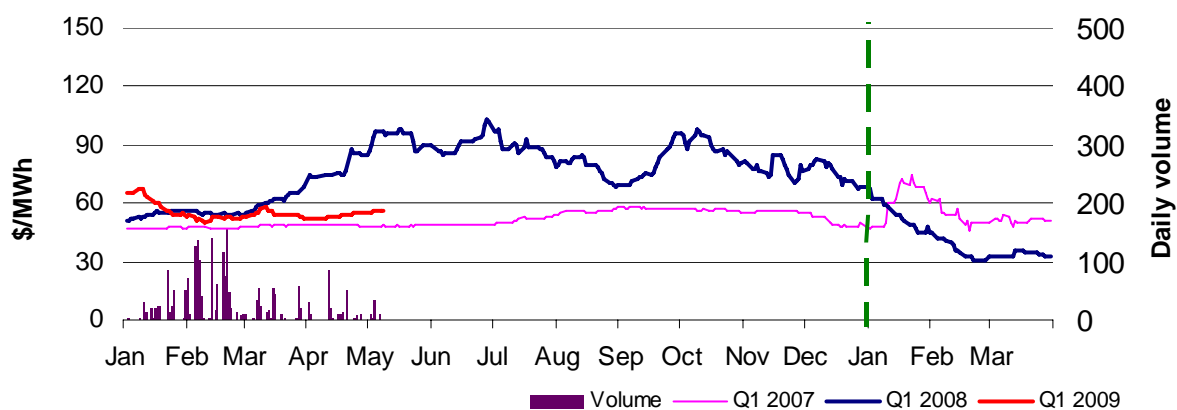
Figures 7-10 compares for each region the closing daily base contract price for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 09 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

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



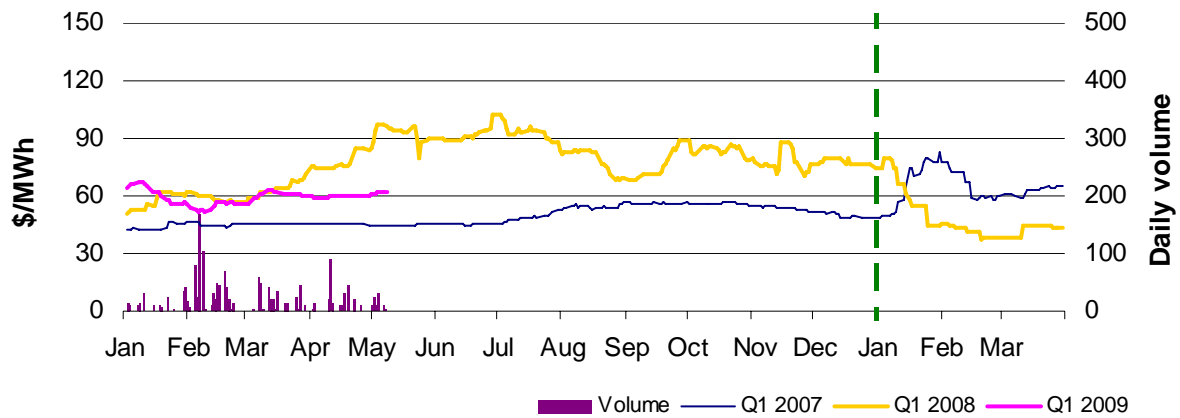
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



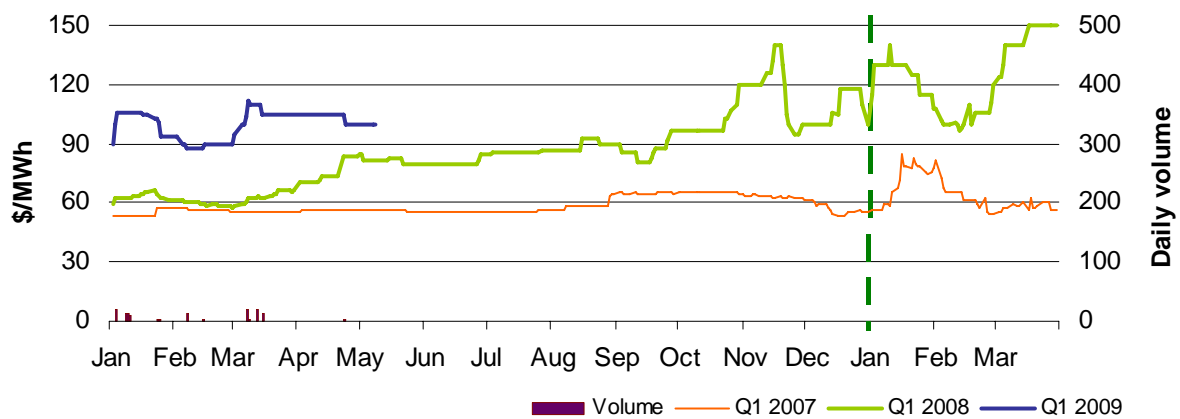
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

**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 149 trading intervals where actual prices significantly varied from forecasts. Reasons for these variances are summarised in Figure 11.

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

	<b>Availability</b>	<b>Demand</b>	<b>Network</b>	<b>Combination</b>
Price is higher than forecast	7%	57%	0%	12%
Price is lower than forecast	1%	23%	0%	1%

## 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>2</sup>. For example, in Queensland 93 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.

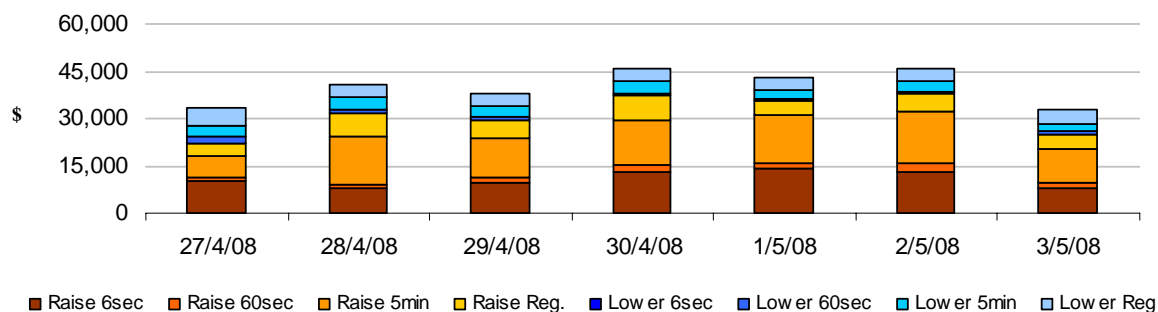
**Figure 12: Changes in available generation compared to the previous week during peak times**

\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	-93	-56	-363	164
New South Wales	-46	78	61	549
Victoria	-52	20	-437	643
South Australia	311	-140	337	121
Tasmania	190	-52	-14	104
Snowy	0	-88	89	-6
Total	309	-237	-326	1,575

## Ancillary services market

The total cost of ancillary services on the mainland for the week was \$202 000 or 0.1 per cent of turnover in the energy market. The total cost of ancillary services in Tasmania for the week was \$78 000 or 0.5 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>2</sup> Peak periods is defined as between trading intervals ending 7.30 am and 10 pm on weekdays, which aligns with the SFE contract definition.

# APPENDIX A:

## Detailed Market Analysis



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**Queensland:** There was one occasion where the spot price in Queensland was greater than three times the Queensland weekly average price of \$39/MWh.

### Monday, 28 April

<b>6:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	117.31	79.91	61
Demand (MW)	6855	6928	6842
Available capacity (MW)	9116	9352	9869

Conditions at the time saw prices aligned across all regions. Available capacity in Queensland was 160 MW lower than forecast four hours ahead and 750 MW lower than forecast 12 hours ahead.

Over two rebids at 8.53 am and 9.29 am CS Energy reduced the availability at Callide by 400 MW, all of which was priced below \$75/MWh. The first rebid reduced unit B1 by 45 MW – the reasons given was “Call\_B\_1 Boiler issue” and the second rebid shutdown unit B2 – the reasons given was “Call\_B\_2 condenser leak”. At 5.23 pm the availability of Kogan Creek was reduced by 150 MW all priced below \$15/MWh. The reason given was “SCC constraints”.

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	61	44	31	51	112	55
2006-07 (\$/MWh) YTD	41	45	30	50	53	46
Change (YTD)	48%	-2%	3%	2%	110%	20%
2006-07 (\$/MWh)	57	67	38	61	59	51

**Table 2: NEM turnover**

Financial year	NEM Turnover* (\$, billion)	Energy (TWh)
2007-08 YTD	\$9.6	174
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)
Dec-07	41	43	32	50	54	52	0.78
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
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 6 May**

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2009								
Price on 28 Apr (\$/MW)	67	119	55	90	61	102	100	160
Price on 05 May (\$/MW)	68	119	57	90	62	107	100	160
Open interest on 05 May	1748	95	1556	66	1223	382	145	0
Traded in the last week (MW)	55	0	60	0	80	10	0	0
Traded since 1 Jan 08	2029	177	2221	68	1640	350	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
February 08 with February 07							
MW Priced <\$20	-243	-732	4	-221	-44	-94	-1331
MW Priced \$20 to \$50	318	1,387	282	-38	0	-66	1883
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