

# WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY  
REGULATOR

8-14 March 2009

## Summary

Average spot prices on the mainland ranged from \$23/MWh in Queensland and New South Wales to \$28/MWh in South Australia. The average spot price in Tasmania was \$36/MWh.

## Spot market prices

Figure 1 sets out the volume weighted average prices for 8 to 14 March and the financial year to date across the National Electricity Market. 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 8 March – 14 March	23	23	25	28	36
Financial year to 14 March	38	46	56	82	48
% change from previous week*	-17	2	8	14	-2
% change from year to date**	-42	0	12	-32	-13

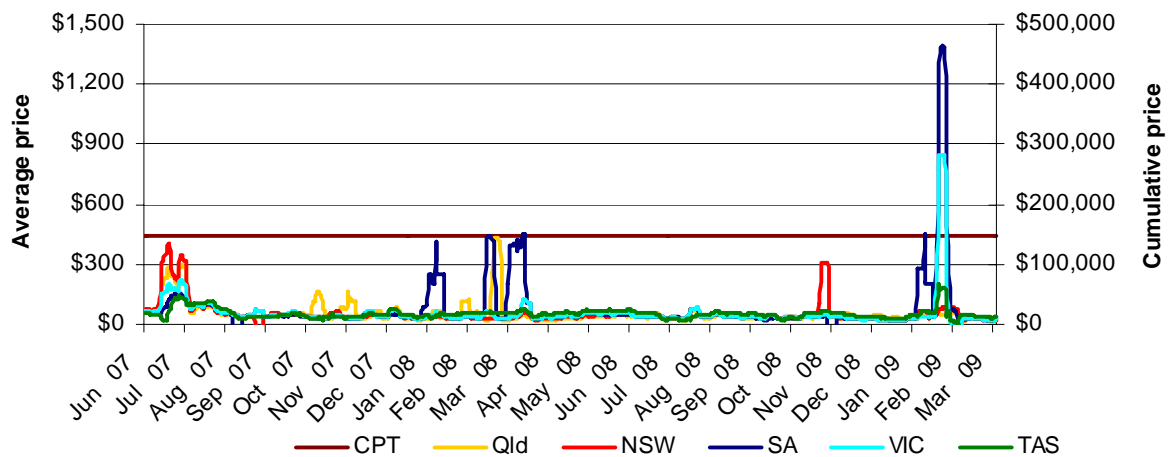
\*The percentage change between last week's average spot price and the average price for the previous week.

\*\*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 were no such events this week. 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 contract<sup>1</sup> prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 16 March. Figure 3 shows the base futures contract prices for the next three financial 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 2009-10	44	0%	46	0%	48	0%	59	0%
Financial 2010-11	54	-2%	57	-1%	60	-2%	67	0%
Financial 2011-12	63	0%	63	0%	65	0%	69	0%
Three year average	54	-1%	56	0%	58	-1%	65	0%

Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)  
 Note: there were no trades in any of these products.

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

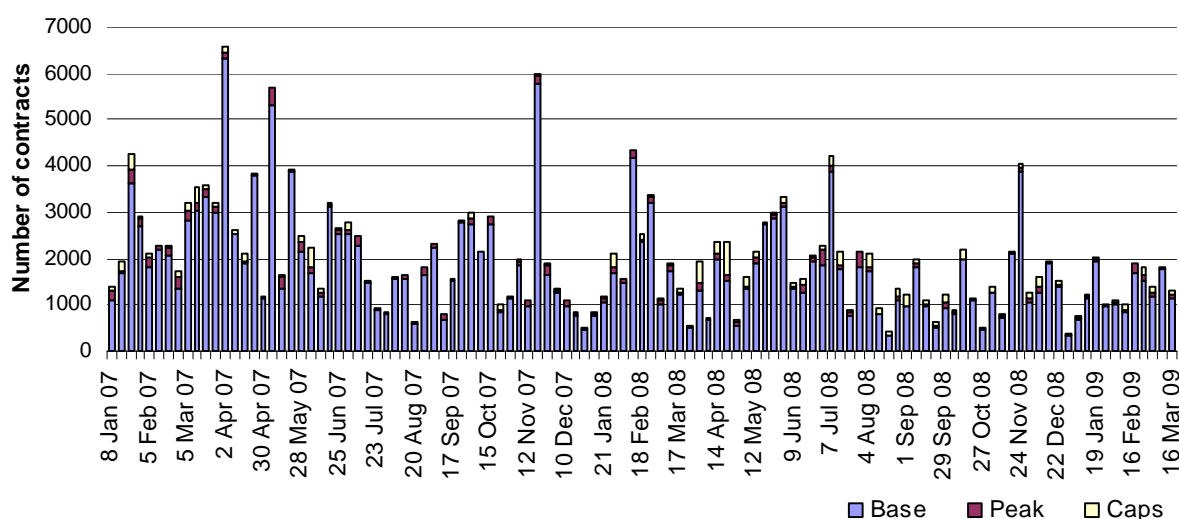
**Figure 4: \$300 cap contract prices (\$/MWh)**

	QLD		NSW		VIC		SA	
Q1 2009 price	6	-18%	6	-8%	29	-3%	90	0%
Calendar 2009	6	-13%	6	-2%	11	-4%	28	0%

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

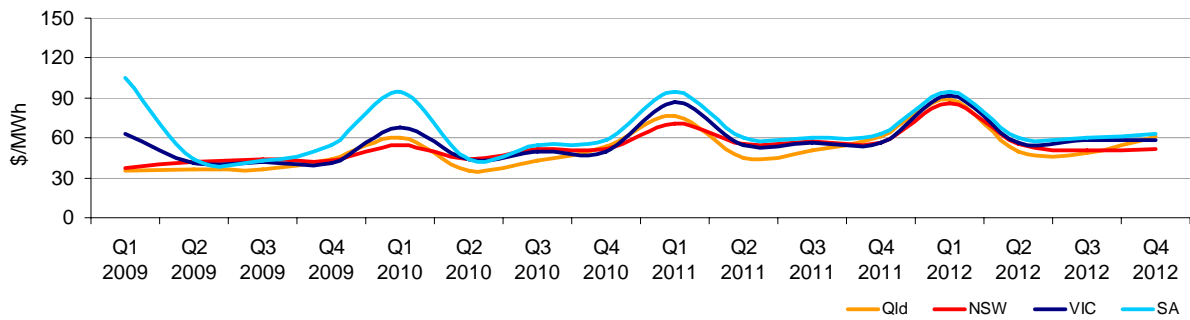


Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

<sup>1</sup> Futures contracts on the SFE are listed by d-cyphaTrade ([www.d-cyphatrade.com.au](http://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.

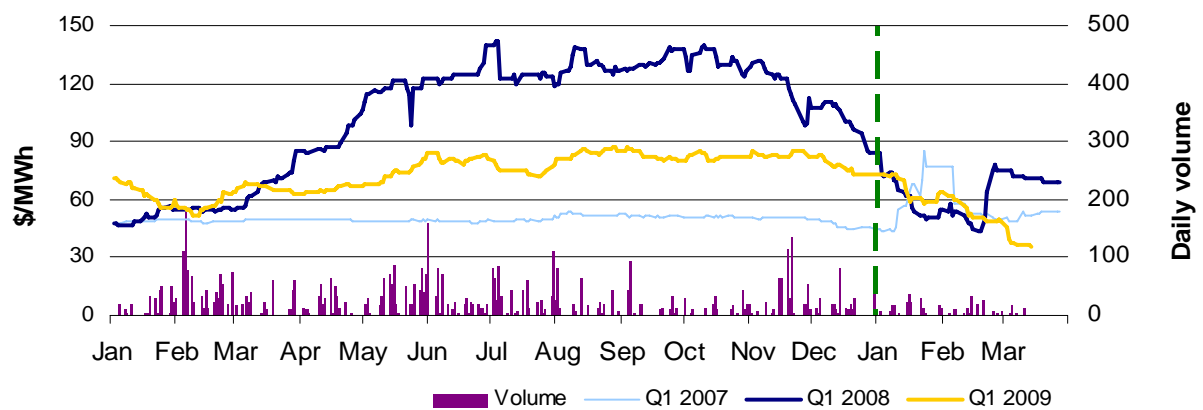
**Figure 6: Quarterly base future prices 2009 - 2012**



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

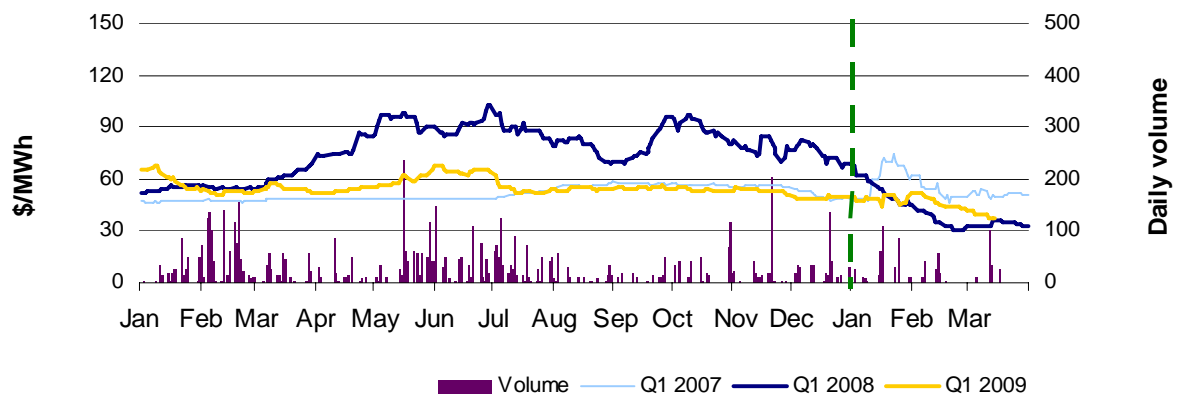
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 2009 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

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



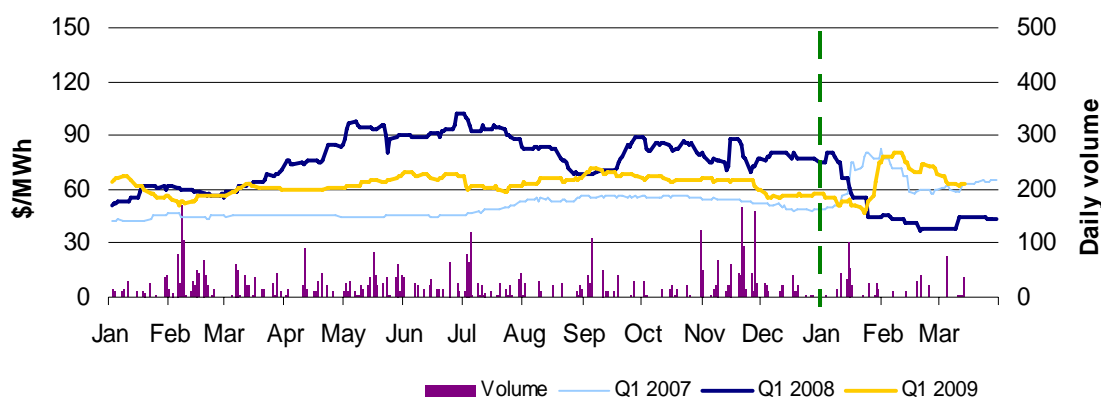
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



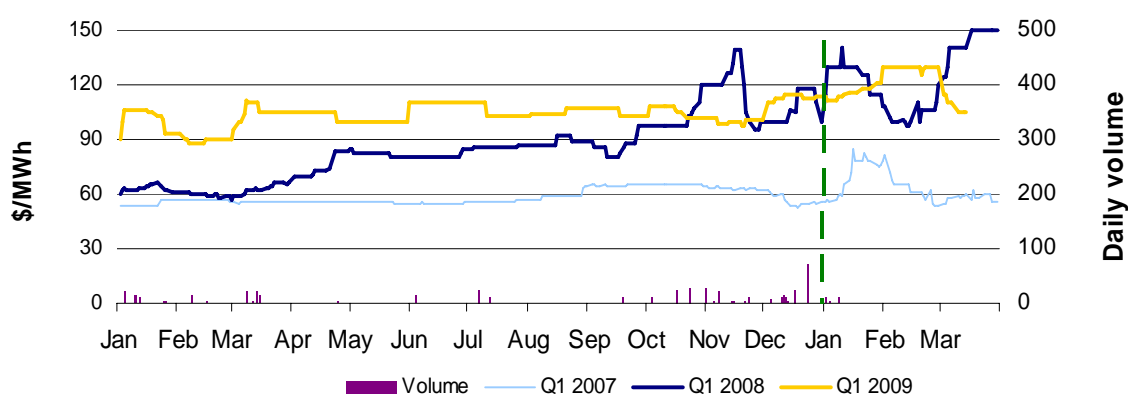
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



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

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



Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://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 NEMMCO and the actual spot price and, if there is a variation, 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. There were 107 trading intervals where actual prices significantly varied from forecasts<sup>2</sup> throughout the week. This compares to the weekly average in 2008 of 130 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
% of total above forecast	0%	50%	0%	0%
% of total below forecast	50%	0%	0%	0%

<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 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 the peak periods only<sup>4</sup>. For example, in Queensland 139 MW less 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 times**

MW	<\$20/MWh	Between \$20 and \$50/MWh	Total availability	Change in average demand
Queensland	-139	-59	-139	-628
New South Wales	-195	-30	204	-67
Victoria	112	-71	120	39
South Australia	-126	-44	-134	150
Tasmania	-45	23	149	-11
Total	-393	-181	200	-517

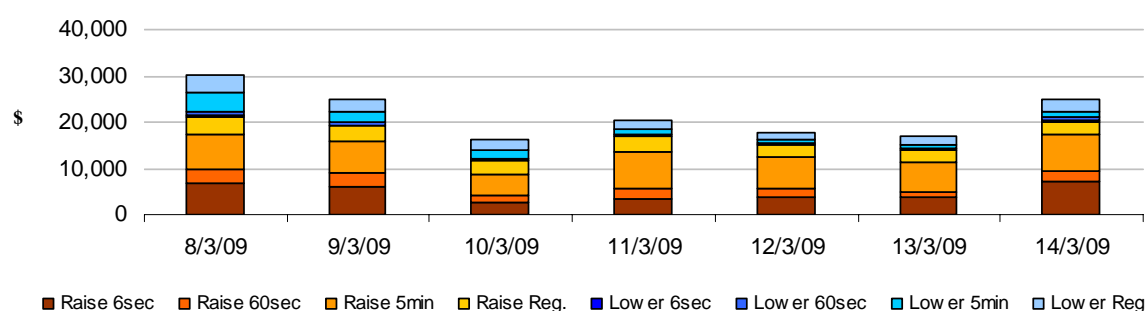
## Ancillary services market

The total cost of frequency control ancillary services on the mainland for the week was \$123 500 or less than one per cent of turnover in the energy market.

The total cost of ancillary services in Tasmania for the week was \$27 700 or less than one per cent of turnover in the energy market in Tasmania.

Figure 13 shows the daily breakdown of cost for each frequency control ancillary service for the NEM.

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



<sup>4</sup> 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



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

Financial year	QLD	NSW	VIC	SA	TAS
2008-09 (\$/MWh) YTD	38	46	56	82	48
2007-08 (\$/MWh) YTD	67	46	50	121	55
Change*	-42%	0%	12%	-32%	-13%
2007-08 (\$/MWh)	58	44	51	101	57

**Table 2: NEM turnover**

Financial year	NEM Turnover** (\$, billion)	Energy (TWh)
2008-09 YTD	\$7.222	148
2007-08	\$11.125	208
2006-07	\$12.695	206
Change (2006-07 to 2007-08)	-12%	0.8%

**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)
Nov-08	40	32	36	34	51	0.603
Dec-08	36	25	23	26	33	0.476
Jan-09	44	57	190	374	85	1.962
Feb-09	42	47	38	47	40	0.709
Mar-09 MTD	26	23	24	26	36	0.192
Q4 2008	39	51	34	32	44	2.133
Q4 2007	56	41	44	46	44	2.345
Change*	-29%	23%	-23%	-30%	0%	-0.48%

**Table 4: ASX energy futures contract prices at 16 March**

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2009								
Price on 09 Mar (\$/MW)	37	54	39	55	64	125	110	200
Price on 16 Mar (\$/MW)	36	50	38	50	63	115	105	200
Open interest on 16 Mar	2530	263	2787	231	2272	444	247	20
Traded in the last week (MW)	15	0	160	0	50	0	0	0
Traded since 1 Jan 08	6213	544	6769	295	5308	807	529	40
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	VIC	SA	TAS	NEM
January 09 with January 08						
MW Priced <\$20	-423	-799	25	39	-26	-1184
MW Priced \$20 to \$50	420	1043	178	52	-64	1629
February 09 with February 08						
MW Priced <\$20	-373	32	-3	72	33	-241
MW Priced \$20 to \$50	328	141	149	-89	10	539
March 09 with March 08						
MW Priced <\$20	-441	81	107	-90	-12	-355
MW Priced \$20 to \$50	433	507	23	26	75	1063

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

\*\* Estimated value