

# WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY  
REGULATOR

9 - 15 August 2009

## Summary

Average spot prices ranged from \$23/MWh in Tasmania to \$26/MWh in South Australia.

## Spot market prices

Figure 1 sets out the volume weighted average prices for 9 August to 15 August 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 9 – 15 August	24	25	24	26	23
% change from previous week*	-8	-4	0	-2	-2
09/10 financial YTD	27	31	27	28	26
% change from 08/09 financial YTD **	-32	-30	-43	-42	-35

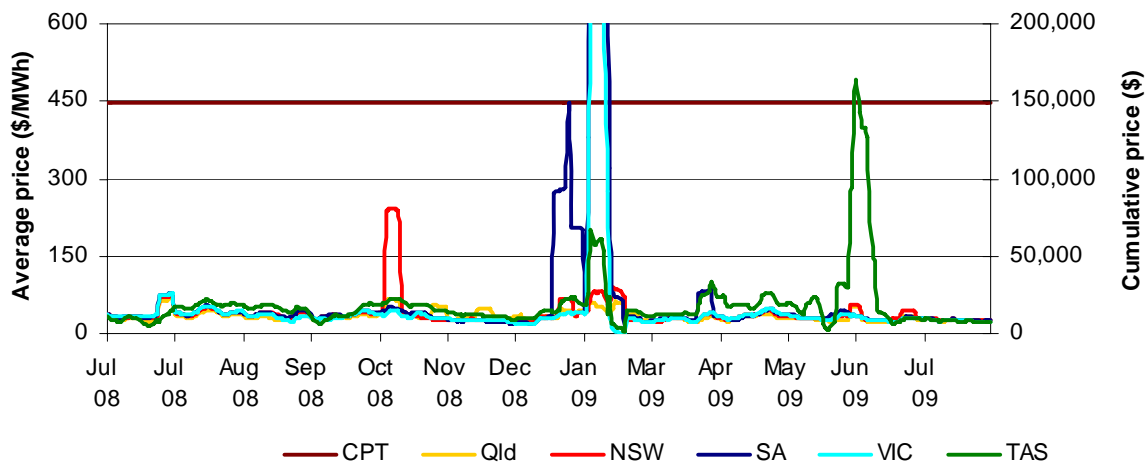
\*The percentage change between last week's average spot price and the average price for the previous week.

\*\*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.

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, average price and CPT**



\*In January 2009 the cumulative price in South Australia reached \$460 000 and in Victoria reached \$280 000.

## 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 17 August. 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	40*	1%	42*	3%	43*	2%	49*	0%
Calendar Year 2011	42*	0%	45	1%	47*	2%	59	0%
Calendar Year 2012	53	0%	59	0%	61	0%	69	0%
Three year average	45	0%	49	1%	50	1%	59	0%

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

\* denotes trades in the product.

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)**

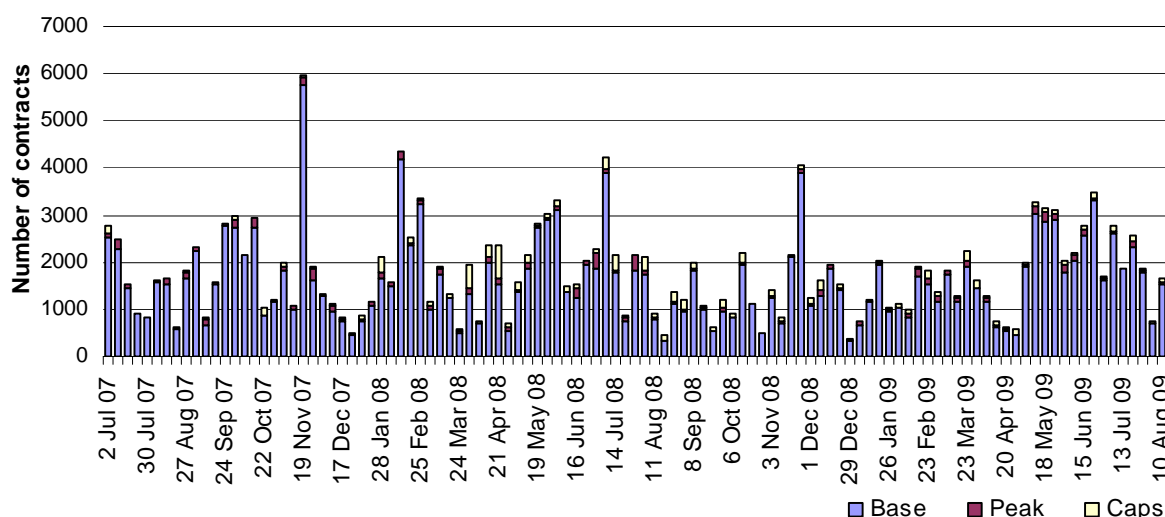
	QLD		NSW		VIC		SA	
Q1 2010 (% change)	26	0%	20	0%	33	4%	45	0%
FY 2010 (% change)	10	-1%	9	3%	10	3%	17	0%

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**

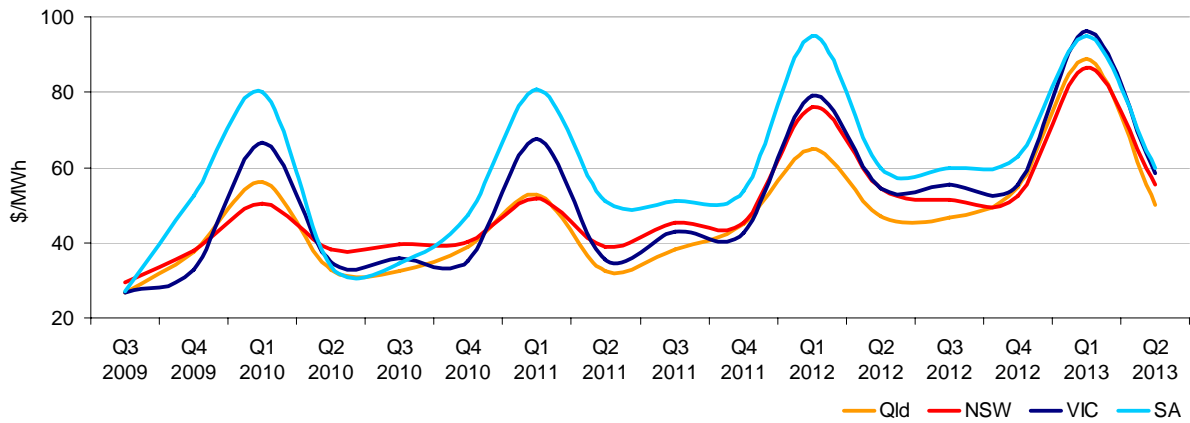


Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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

<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.

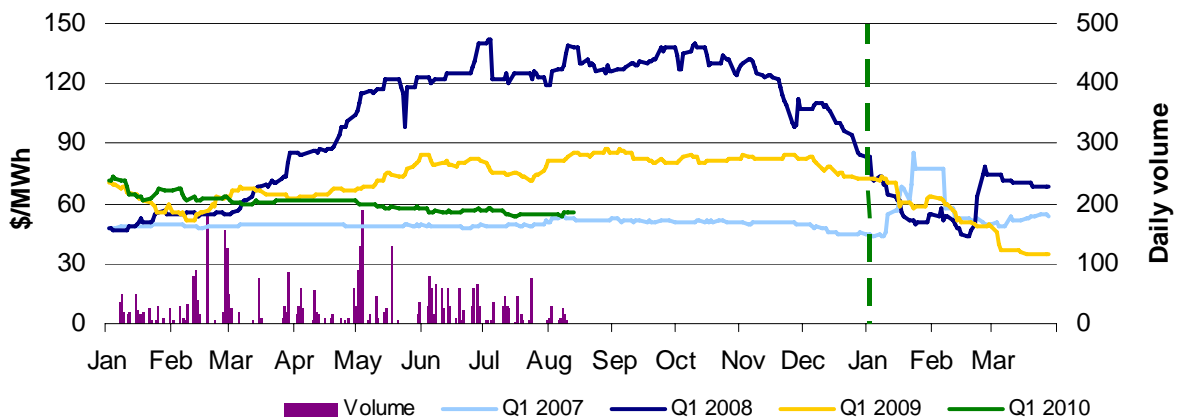
**Figure 6: Quarterly base future prices Q3 2009 – Q2 2013**



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

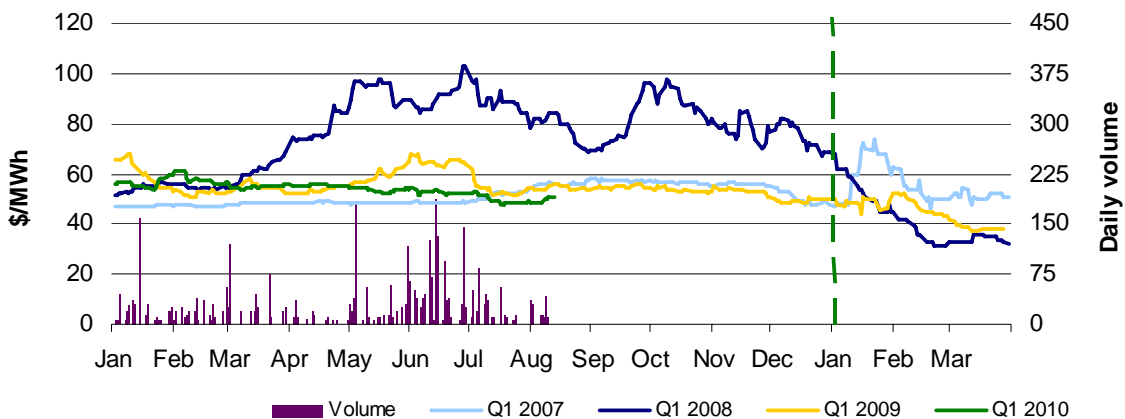
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009 and 2010. Also shown is the daily volume of Q1 2010 base contracts traded. The vertical dashed line signifies the start of the Q1 period for which the contracts are being purchased. To understand the diagrams, the dark-blue line demonstrates that throughout the middle of 2007, contract traders had an expectation of very high-spot prices in the first quarter of 2008.

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



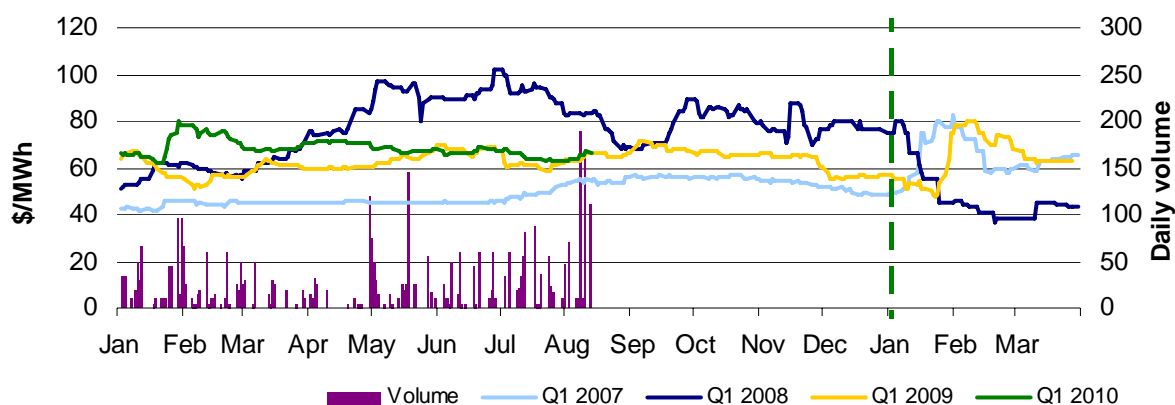
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



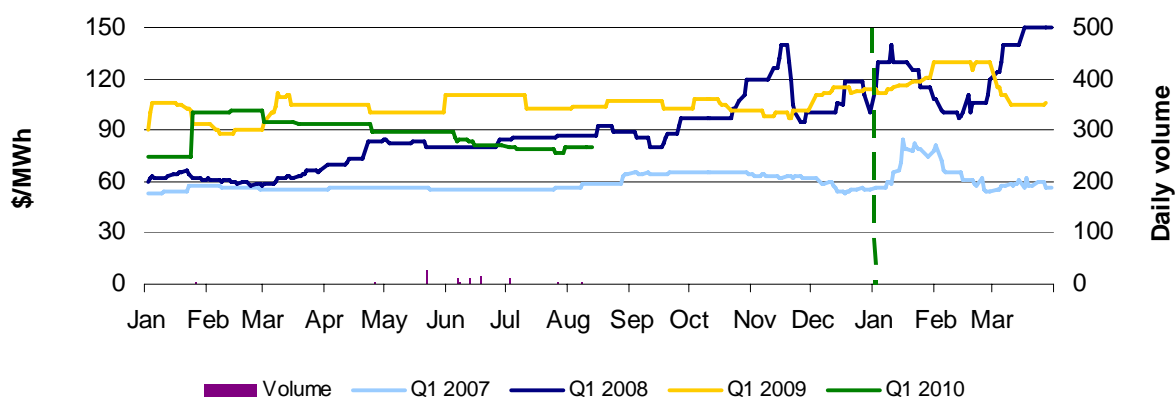
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



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

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



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 the Australian Energy Market Operator (AEMO), 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 29 trading intervals throughout the week where actual prices varied significantly from forecasts<sup>2</sup>. 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	48	0	0
% of total below forecast	52	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 12 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 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 weekly change in total available capacity at various price levels during peak periods<sup>4</sup>. For example, in Queensland 511 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	511	-457	133	-118
NSW	305	-136	448	0
VIC	-148	-179	-273	137
SA	61	13	21	42
TAS	17	59	30	56
<b>TOTAL</b>	<b>746</b>	<b>-700</b>	<b>359</b>	<b>117</b>

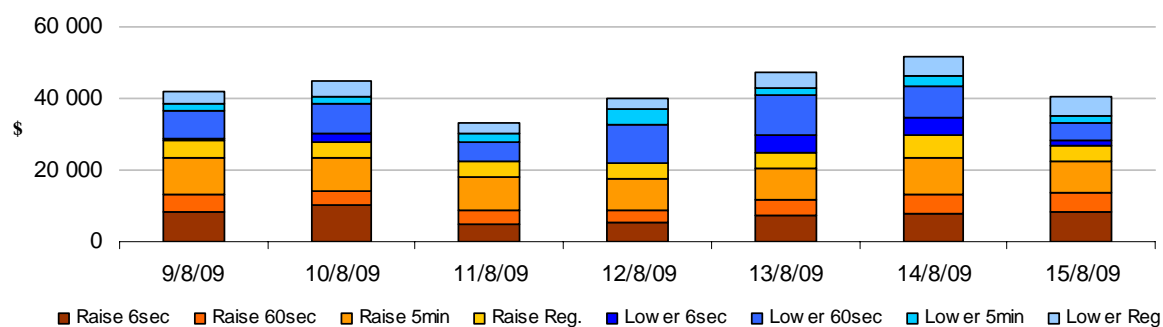
## Ancillary services market

The total cost of frequency control ancillary services (FCAS) on the mainland for the week was \$189 000 or less than one per cent of turnover in the energy market.

The total cost of FCAS in Tasmania for the week was \$110 000 or around two 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**



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<sup>4</sup> 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  
9 August - 15 August 2009



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

Financial year	QLD	NSW	VIC	SA	TAS
2009-10 (\$/MWh) (YTD)	27	31	27	28	26
2008-09 (\$/MWh) (YTD)	40	44	46	48	40
Change*	-32%	-30%	-43%	-42%	-35%
2008-09 (\$/MWh)	36	43	49	69	62

**Table 2: NEM turnover**

Financial year	NEM Turnover** (\$, billion)	Energy (TWh)
2009-10 (YTD)	\$0.767	27
2008-09	\$9.413	208
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)
Apr-09	34	38	40	38	69	0.622
May-09	28	31	33	35	49	0.550
Jun-09	33	37	31	33	194	0.746
Jul-09	29	34	28	29	27	0.539
Aug-09	25	26	24	26	23	0.214
Q2 2009	32	35	34	35	106	1.918
Q2 2008	38	42	47	46	61	2.251
Change*	-17%	-15%	-27%	-24%	75%	-14.81%

**Table 4: ASX energy futures contract prices at 17 August**

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2010								
Price on 10 Aug (\$/MW)	54	93	49	79	64	116	80	121
Price on 17 Aug (\$/MW)	56	96	50	81	67	123	80	121
Open interest on 17 Aug	2308	155	2192	31	2209	134	58	0
Traded in the last week (MW)	55	10	77	0	483	85	5	0
Traded since 1 Jan 09 (MW)	3724	215	3723	53	3636	165	93	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
June 09 with June 08						
MW Priced <\$20/MWh	182	38	474	28	39	761
MW Priced \$20 to \$50/MWh	487	766	-242	44	244	1299
July 09 with July 08						
MW Priced <\$20/MWh	-657	-516	-41	152	55	-1006
MW Priced \$20 to \$50/MWh	470	93	4	-53	194	707
August 09 with August 08						
MW Priced <\$20/MWh	-244	-300	127	-27	388	-56
MW Priced \$20 to \$50/MWh	116	277	-83	29	231	570

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

\*\* Estimated value