WEEKLY MARKET ANALYSIS

AUSTRALIAN ENERGY REGULATOR

2 August-8 August 2009

Summary

Average spot prices ranged from $24/MWh in Tasmania and Victoria to $27/MWh in New South Wales.

Spot market prices

Figure 1 sets out the volume weighted average prices for 2 August to 8 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)

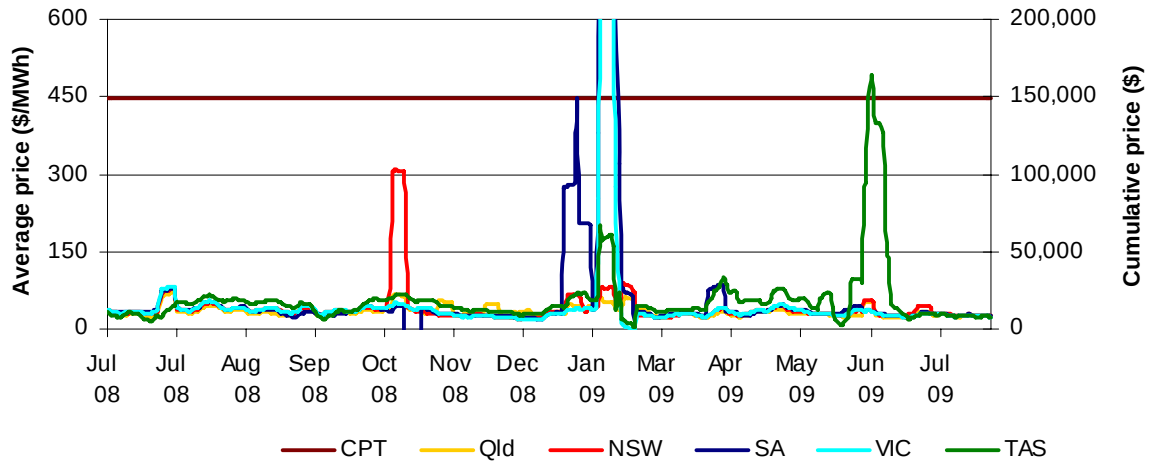
	Qld	NSW	VIC	SA	Tas
Average price for 2 August – 8 August	26	27	24	26	24
% change from previous week*	-3	-4	-5	-2	-2
09/10 financial YTD	28	32	27	28	26
% change from 08/09 financial YTD **	-28	-25	-40	-39	-25

*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[1] prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 10 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	39*	0%	41*	0%	42*	0%	49	2%
Calendar Year 2011	42*	-1%	45*	0%	46*	1%	59	0%
Calendar Year 2012	53	0%	59	0%	61	0%	69	0%
Three year average	45	0%	48	0%	50	0%	59	0%

Source: d-cyphaTrade 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.

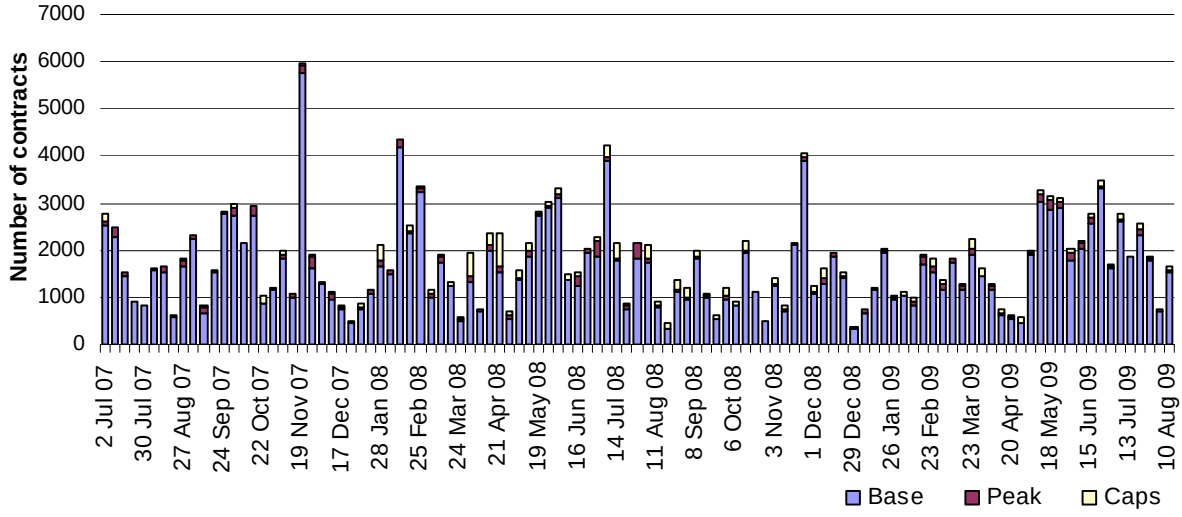
Figure 4: $300 cap contract prices ($/MWh)

	QLD		NSW		VIC		SA	
Q1 2010 (% change)	26	0%	20	-2%	32	-2%	45	0%
FY 2010 (% change)	10	-1%	9	-7%	10	-5%	17	-1%

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

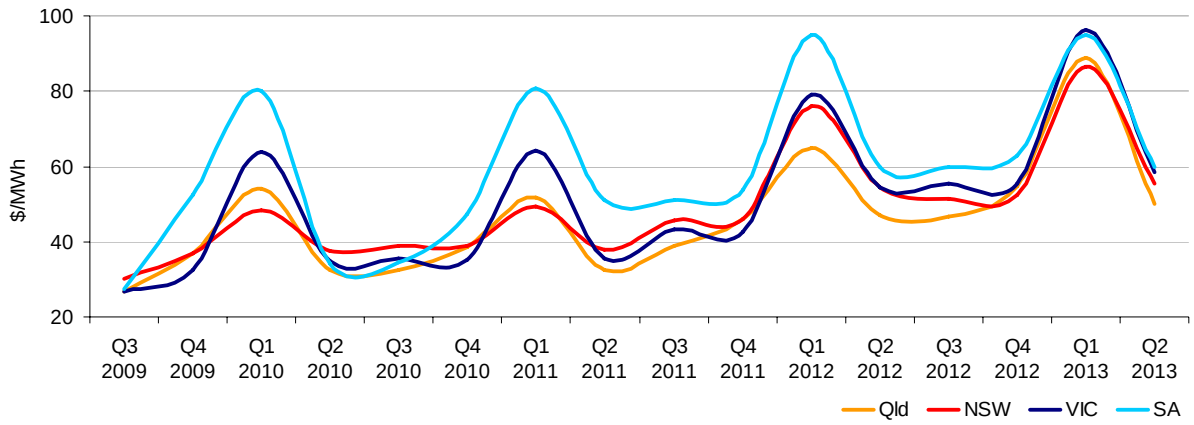


Source: d-cyphaTrade www.d-cyphatrade.com.au

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

[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.

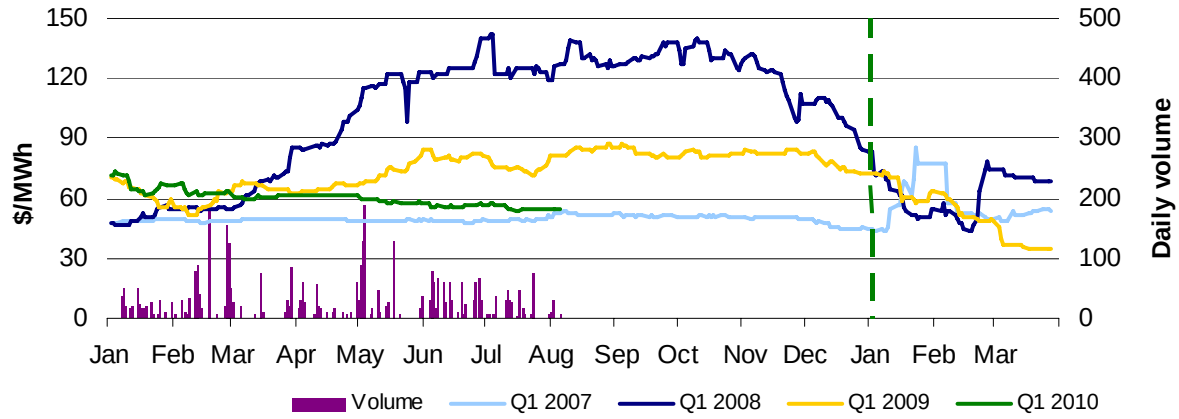
Figure 6: Quarterly base future prices Q3 2009 – Q2 2013



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

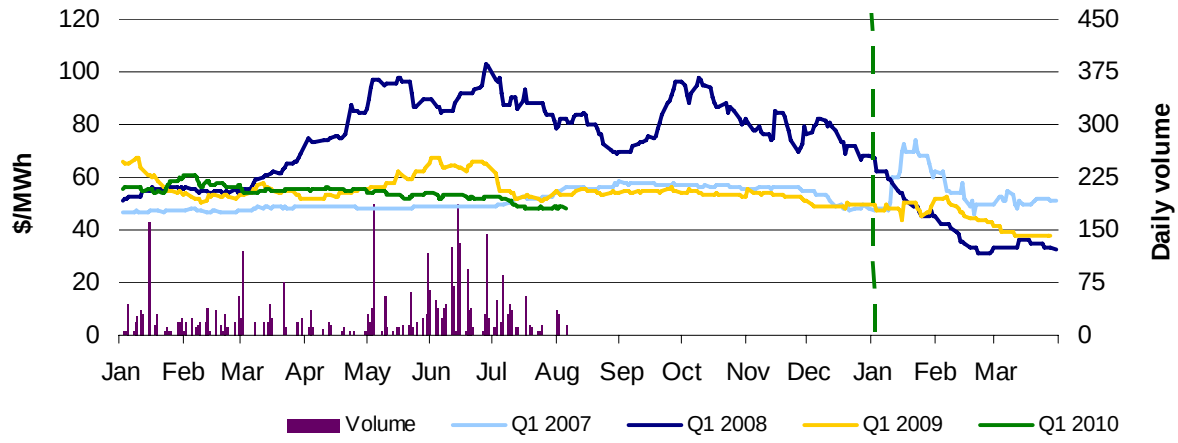
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009 and 2010. Also shown is the daily volume of Q1 2010 base contracts traded. The vertical dashed line signifies the start of the Q1 period for which the contracts are being purchased. To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



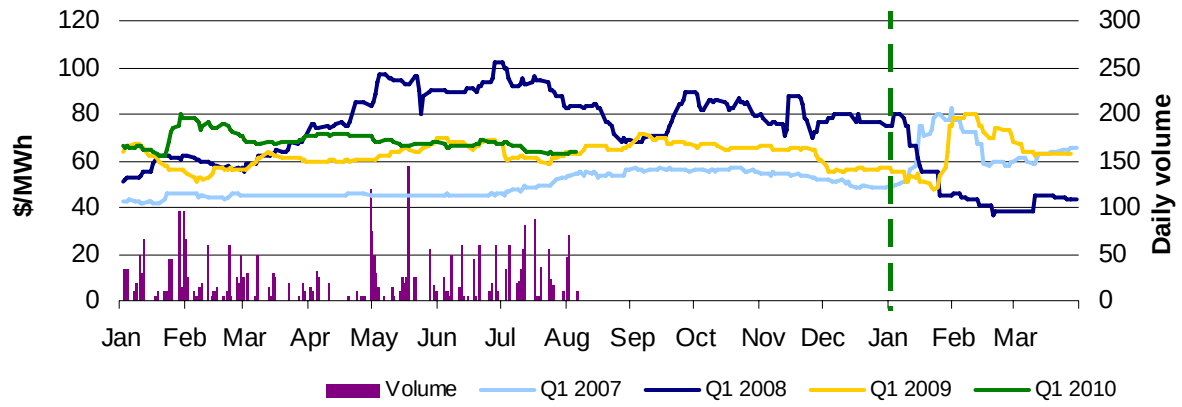
Source: d-cyphaTrade www.d-cyphatrade.com.au

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



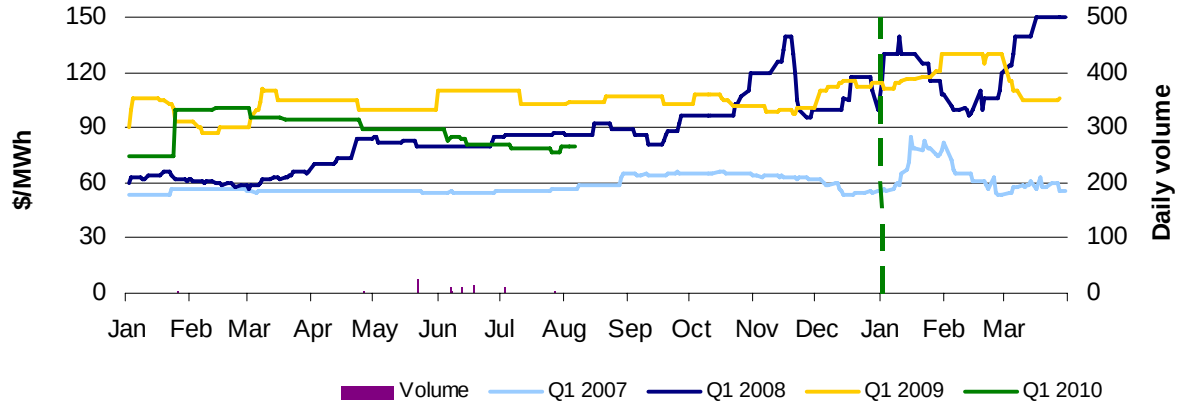
Source: d-cyphaTrade www.d-cyphatrade.com.au

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 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 35 trading intervals throughout the week where actual prices varied significantly from forecasts[2]. This compares to the weekly average in 2008 of 130 counts. Reasons for these variances are summarised in Figure 11[3].

Figure 11: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
% of total above forecast	0	16	0	0
% of total below forecast	77	5	0	1

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 weekly change in total available capacity at various price levels during peak periods[4]. For example, in Queensland 298 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 periods

MW	<$20/MWh	Between $20 and $50/MWh	Total availability	Change in average demand
Qld	-298	157	-149	-84
NSW	239	-391	-63	-205
VIC	-40	-118	-22	-127
SA	-162	78	-118	-108
TAS	-14	46	0	-11
TOTAL	-275	-228	-352	-535

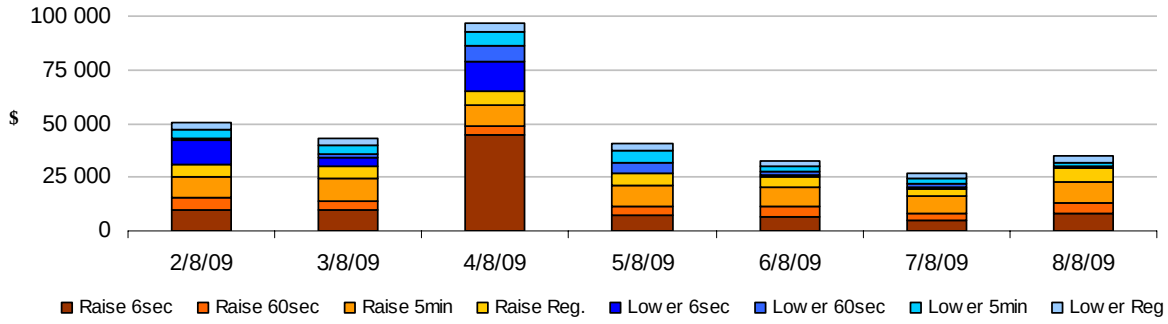
Ancillary services market

The total cost of frequency control ancillary services (FCAS) on the mainland for the week was $208 000 or less than one per cent of turnover in the energy market.

The total cost of FCAS in Tasmania for the week was $118 000 or two and a half per cent of turnover in the energy market. On Tuesday 4 August at 4.35 am AEMO reclassified the loss of the Farrell to Sheffield lines due to lightning. The constraint used to manage the reclassification increased the requirement for raise 6 second ancillary services. The interaction between ancillary services and energy saw the five minute price of raise 6 second ancillary services reach $5323/MWh for one dispatch interval.

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
August 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
2 August - 8 August 2009

AUSTRALIAN ENERGY REGULATOR

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

Financial year	QLD	NSW	VIC	SA	TAS
2009-10 ($/MWh) (YTD)	28	32	27	28	26
2008-09 ($/MWh) (YTD)	39	43	45	47	35
Change*	-28%	-25%	-40%	-39%	-25%
2008-09 ($/MWh)	36	43	49	69	62

Table 2: NEM turnover

Financial year	NEM Turnover** ($, billion)	Energy (TWh)
2009-10 (YTD)	$0.669	23
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	24	0.116
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 10 August

	QLD		NSW		VIC		SA	
Q1 2010	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 03 Aug ($/MW)	55	94	49	79	63	116	76	121
Price on 10 Aug ($/MW)	54	93	49	79	64	116	80	121
Open interest on 10 Aug	2274	150	2142	31	2070	54	58	0
Traded in the last week (MW)	52	5	81	1	137	30	0	0
Traded since 1 Jan 09 (MW)	3669	205	3646	53	3153	80	88	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	-536	-539	207	-60	452	-476
MW Priced $20 to $50/MWh	311	383	-33	-60	141	742

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