

WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY
REGULATOR

14 – 20 September 2008

Summary

Spot prices on the mainland averaged between \$28/MWh in South Australia and \$34/MWh in Victoria. The average spot price in Tasmania was \$43/MWh. A reduction in demand led to generally lower average prices across the NEM, compared to the previous week.

Output from wind generators in South Australia peaked at 574 MW and averaged 360 MW, or a quarter of the average demand for the week. This contributed to 24 negative spot prices and the lowest average price since December 2006.

In the financial markets contract prices were similar to the previous week.

Spot market prices

Figure 1 sets out the volume weighted average prices for this week and the financial year to date across the 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
Ave price for 14 – 20 September	33	32	34	28	43
Financial year to 20 September	37	42	43	43	45
% change from previous week*	22%	-16%	-8%	-15%	-18%
% change from year to date**	-35%	-31%	-31%	-32%	-33%

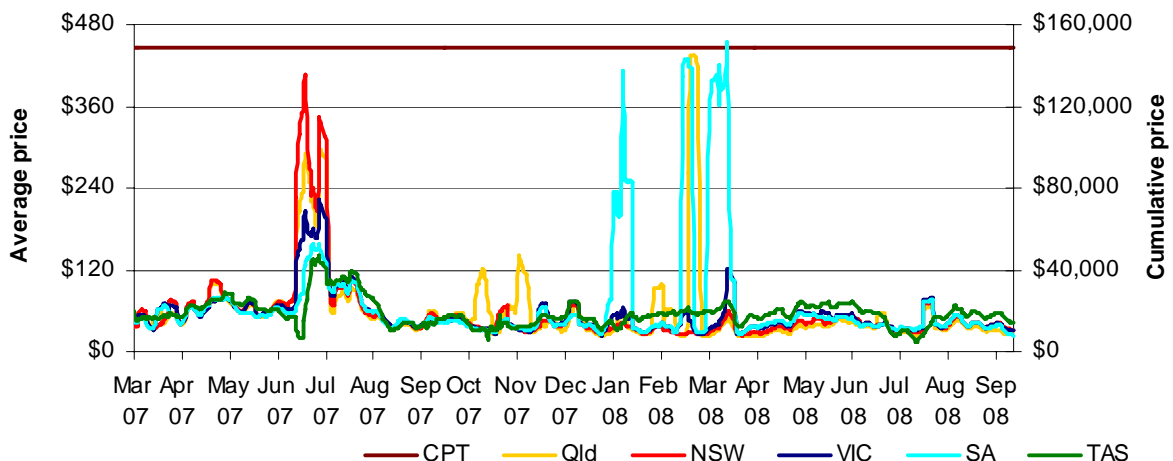
*The percentage change between last week's average spot price and the average price for the previous week.

**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. 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 18 months.

Figure 2: Seven day rolling cumulative price and CPT



Financial markets

Figures 3 to 10 show futures contract¹ prices traded on the Sydney Futures Exchange as at close of trade on Monday 22 September. Figure 3 shows the financial year base futures contract prices for the current year, the following 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	50	0%	49	3%	51	1%	54	1%
Financial 2009-10	54	0%	49	0%	62	0%	54	1%
Financial 2010-11	46	0%	45	0%	54	0%	42	0%
Three year average	50	0%	48	1%	56	0%	50	0%

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.

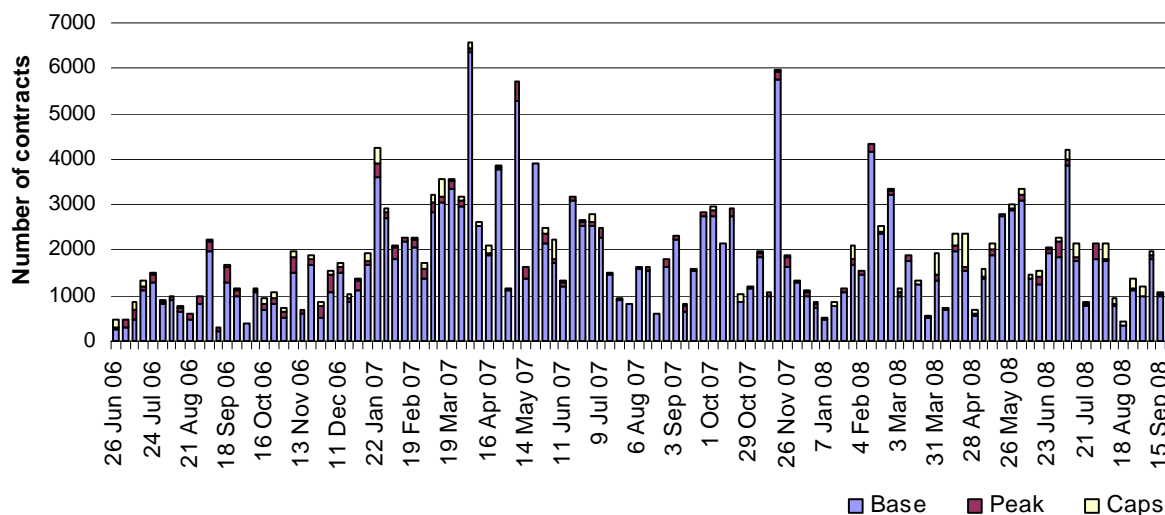
Figure 4: \$300 cap contract prices (\$/MWh)

	QLD		NSW		VIC		SA	
Q1 2009 price	42	-2%	21	-5%	28	-2%	65	0%
Calendar 2009	16	-2%	11	-2%	12	-1%	21	0%

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

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

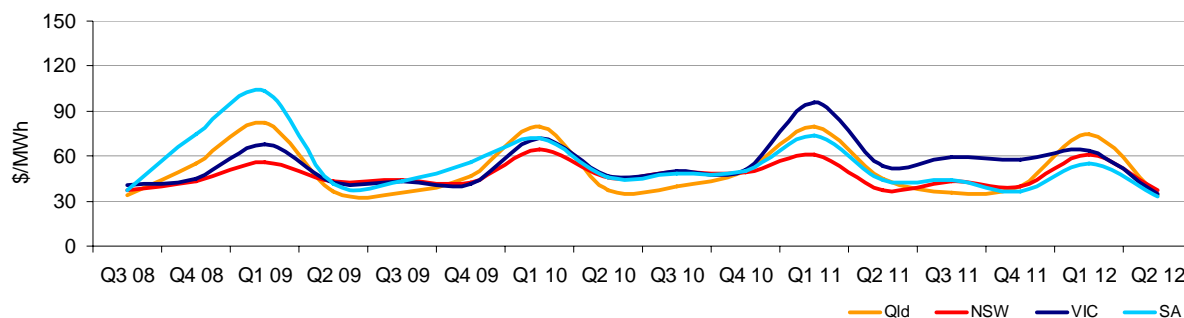


Source: d-cyphaTrade www.d-cyphatrade.com.au

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

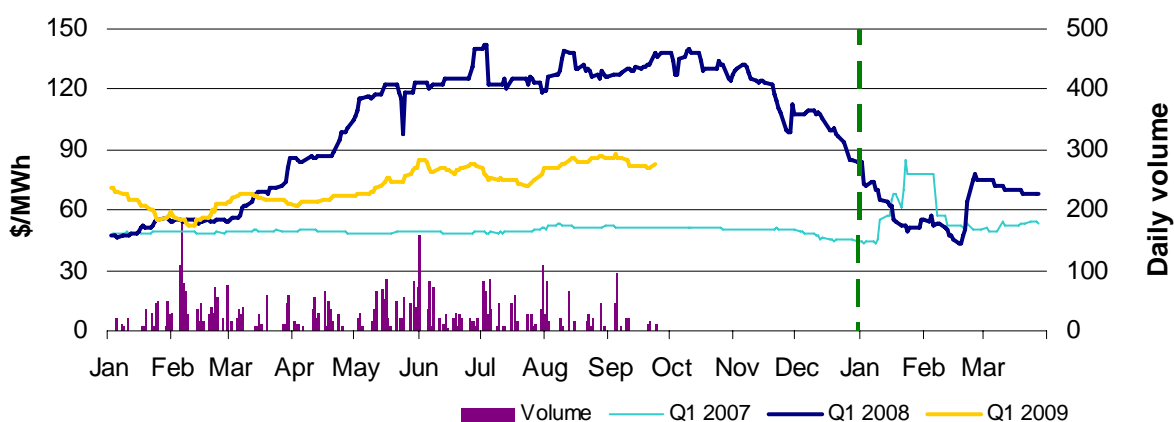
Figure 6: Quarterly base future prices 2008 - 2012



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

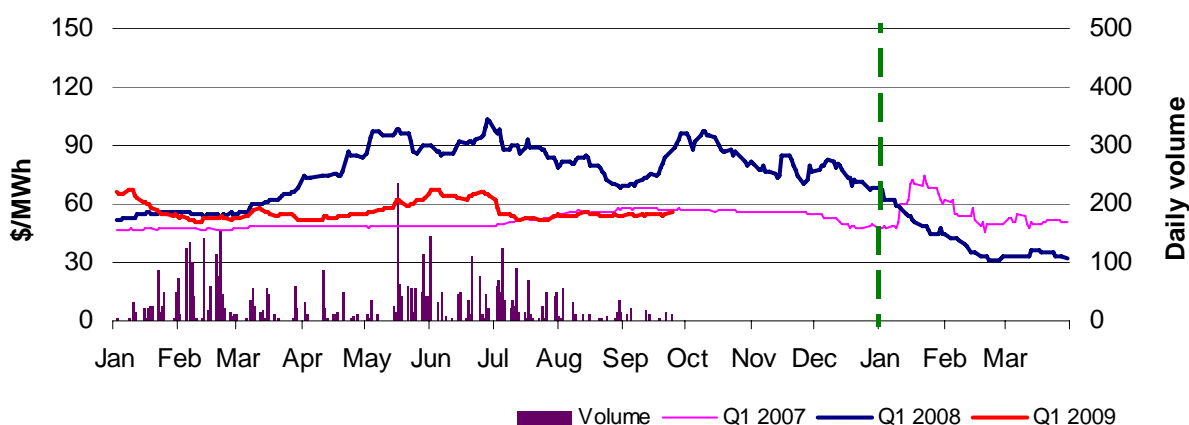
Figures 7-10 compares for each region the closing daily base contract price for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 09 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

Figure 7: Queensland Q1 2007, 2008 and 2009



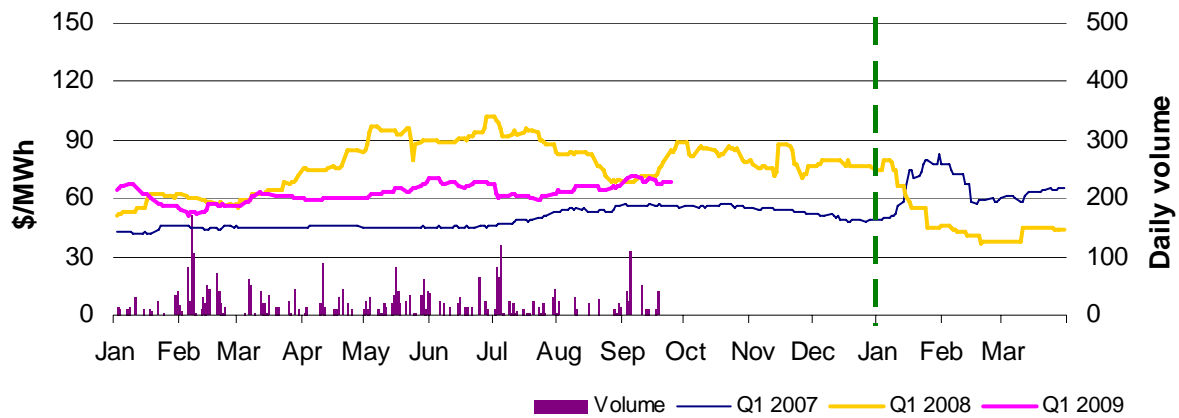
Source: d-cyphaTrade www.d-cyphatrade.com.au

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



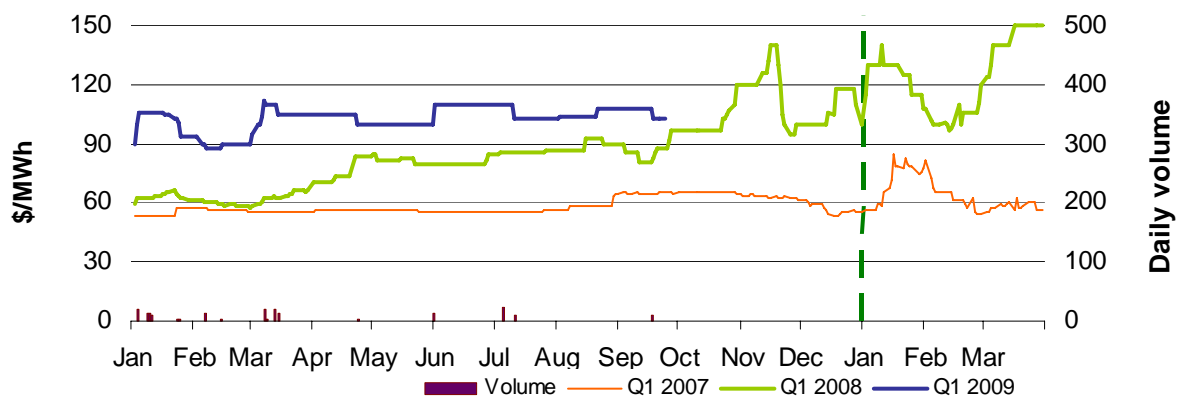
Source: d-cyphaTrade www.d-cyphatrade.com.au

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. There were 208 trading intervals where actual prices significantly varied from forecasts² throughout the week. This compares to the weekly average in 2007 of 125 counts. Reasons for these variances are summarised in Figure 11³.

Figure 11: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
Price is higher than forecast	4%	43%	0%	2%
Price is lower than forecast	39%	9%	0%	2%

² 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.

³ 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 changes to the offer price and available capacity of generation in each region for the on-peak periods only⁴. For example, in Queensland 498 MW less capacity 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

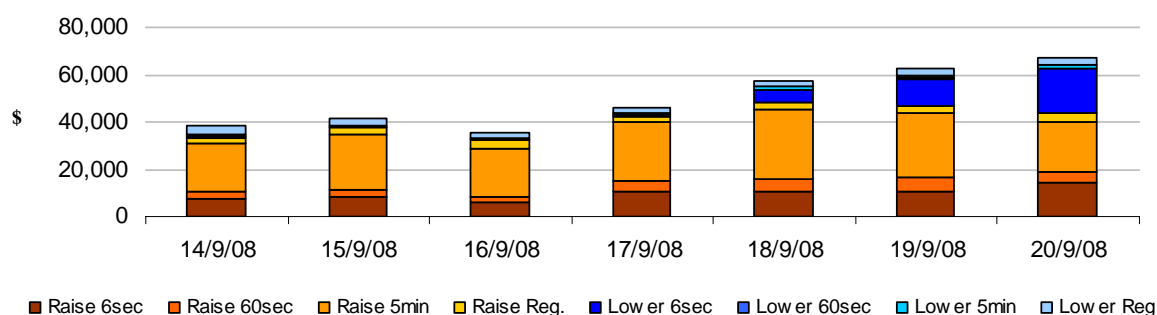
\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	-498	256	-563	45
New South Wales	746	-322	510	-399
Victoria	-279	-64	-361	-106
South Australia	9	27	-89	-22
Tasmania	98	-39	-96	-75
Total	76	-141	-599	-557

Ancillary services market

The total cost of ancillary services on the mainland for the week was \$330 000 or less than one per cent of turnover in the energy market. The total cost of ancillary services in Tasmania for the week was \$78 000 or less than one 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



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⁴ Peak period is defined as between 7 am and 10 pm on weekdays, which aligns with the SFE contract definition.

Appendix A:

Detailed Market Analysis



14 – 20 September 2008

South Australia: There were two occasions where the spot price in South Australia was greater than three times the South Australia weekly average price of \$28/MWh.

Tuesday, 16 September

6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	85.04	64.43	47.81
Demand (MW)	1859	1882	1866
Available capacity (MW)	2539	2567	2635
7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	88.51	89.33	88.58
Demand (MW)	1971	2000	1984
Available capacity (MW)	2565	2565	2628

Conditions at the time saw price and demand close to that forecast four hours ahead.

Queensland: There was one occasion where the spot price in Queensland was greater than three times the Queensland weekly average price of \$33/MWh.

Saturday, 20 September

8:00 am	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	1683.24	20.36	20.01
Demand (MW)	5366	5265	5276
Available capacity (MW)	9141	9207	9207

Conditions at the time saw demand 100 MW greater than that forecast four hours ahead.

On Saturday morning two of the three Terranora/Directlink cables were out of service for planned maintenance. At 7.55 am there was an increase in Queensland demand of around 100 MW. At the same time a network constraint forced more than 500 MW across QNI into New South Wales counter-priced. This led to generators in Queensland being ramp rate limited and the 5-minute price reached \$10 000/MWh. At 8 am demand decreased by 60 MW and prices returned to previous levels.

Appendix B 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	37	42	43	43	45
2007-08 (\$/MWh) YTD	57	60	62	64	67
Change	-35%	-31%	-31%	-32%	-33%
2007-08 (\$/MWh)	58	44	51	101	57

Table 2: NEM turnover

Financial year	NEM Turnover* (\$, billion)	Energy (TWh)
2008-09 YTD	\$2.0	49
2007-08	\$11.1	208
2006-07	\$12.7	206
Change (2006-07 to 2007-08)	-12%	0.8%

* 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)
May-08	41	47	36	56	53	68	0.87
Jun-08	43	44	28	44	42	57	0.77
Jul-08	40	44	-	46	48	31	0.82
Aug-08	37	42	-	42	44	56	0.79
Sep-08	32	37	-	38	34	51	0.42
Q2 2007	119	146	-	99	83	74	3.26
Q2 2008	38	42	-	47	46	61	3.36
Change	-68%	-71%	-	-52%	-44%	-18%	

Table 4: ASX energy futures contract prices at 22 September

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2009								
Price on 15 Sep (\$/MW)	36	46	43	59	43	59	42	62
Price on 22 Sep (\$/MW)	36	46	43	59	43	59	42	62
Open interest on 22 Sep	2309	120	2170	171	1712	437	145	0
Traded in the last week (MW)	35	5	31	0	40	0	10	0
Traded since 1 Jan 08	4603	367	4782	200	3363	652	215	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
July 08 with July 07							
MW Priced <\$20	486	904	-	36	46	541	2013
MW Priced \$20 to \$50	408	-744	-	292	166	119	242
August 08 with August 07							
MW Priced <\$20	138	668	-	116	168	-248	841
MW Priced \$20 to \$50	511	-844	-	275	79	51	72
September 08 with September 07							
MW Priced <\$20	906	735	-	-13	158	40	1826
MW Priced \$20 to \$50	145	-420	-	216	181	70	191

*For comparative purposes Snowy generation for July 2007 and 2008 has been incorporated into New South Wales and Victoria