

WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY
REGULATOR

28 June-4 July 2009

Summary

Average spot prices for the mainland regions ranged from \$24/MWh in Victoria and South Australia to \$30/MWh in New South Wales. The average spot price in Tasmania was \$21/MWh, significantly lower than the previous week.

Spot market prices

Figure 1 sets out the volume weighted average prices for 28 June to 4 July 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)

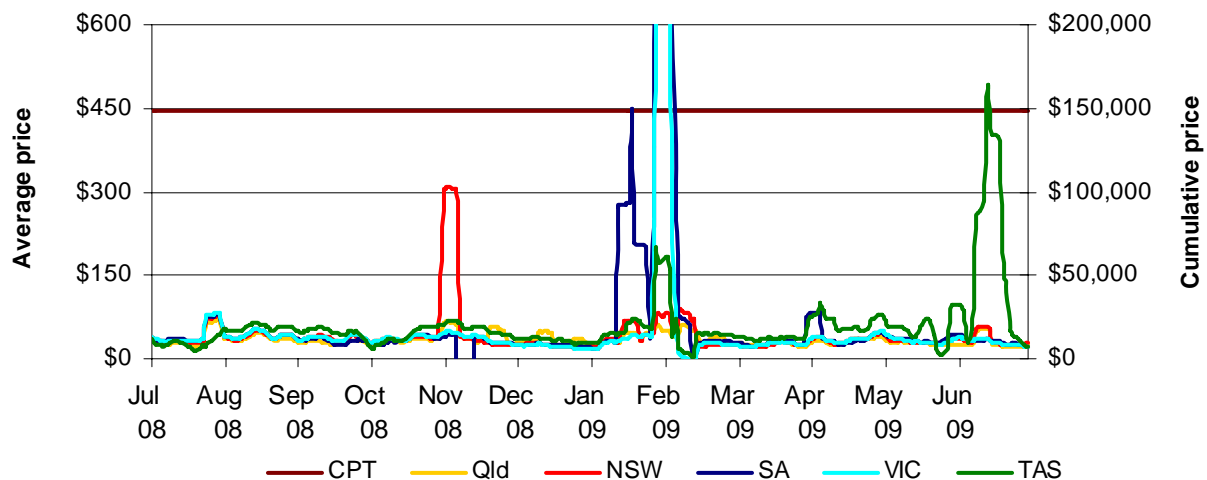
	Qld	NSW	VIC	SA	Tas
Average price for 28 June – 04 July	26	30	24	24	21
% change from previous week*	7	17	-10	-16	-50
08/09 financial year	36	43	49	69	62
% change from previous financial year	-38	-2	-4	-32	9

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

The AER provides further information if the spot price exceeds three times the weekly average and is greater than or equal to \$250/MWh¹. This 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 Cumulative Price Threshold (CPT) (and the equivalent seven day time weighted average price).

Figure 2: Seven day rolling cumulative price and CPT



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

¹ Prior to 1 July 2009, spot prices were analysed if they exceeded three times the weekly average.

Financial markets

Figures 3 to 10 show futures contract² prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 6 July. 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	42*	0%	45*	-1%	46*	-2%	53	-1%
Calendar Year 2011	45*	-1%	48*	0%	50*	-1%	62	-11%
Calendar Year 2012	55	-1%	59	0%	61	-3%	69	0%
Three year average	47	-1%	51	0%	53	-2%	61	-4%

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

* there were trades in these products but not in others.

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)

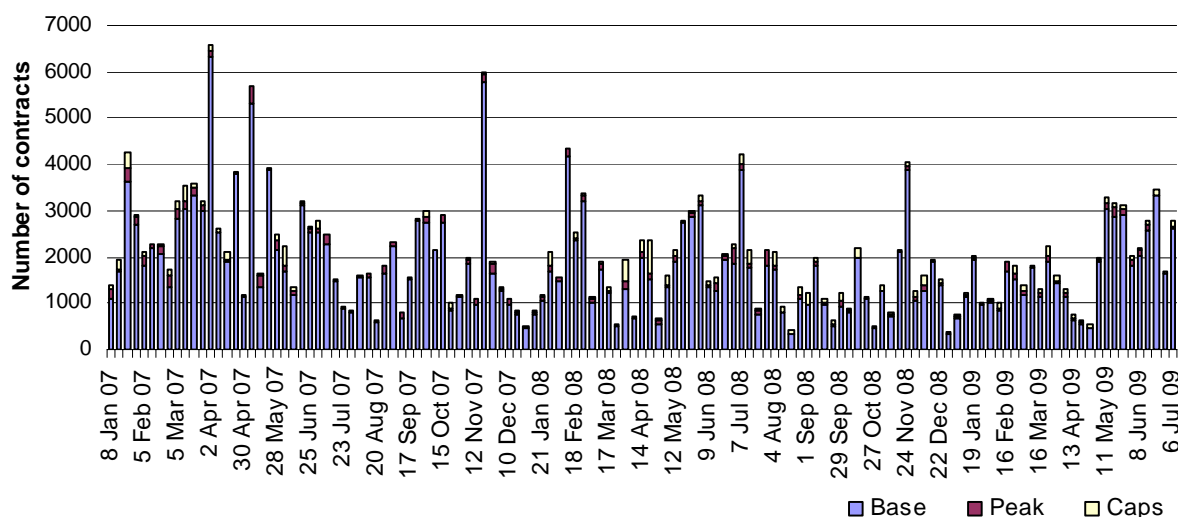
	QLD		NSW		VIC		SA	
Q1 2010	26	0%	21	0%	33	-6%	45	0%
Financial 2009-10	11	-1%	10	3%	11	-6%	18	0%

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

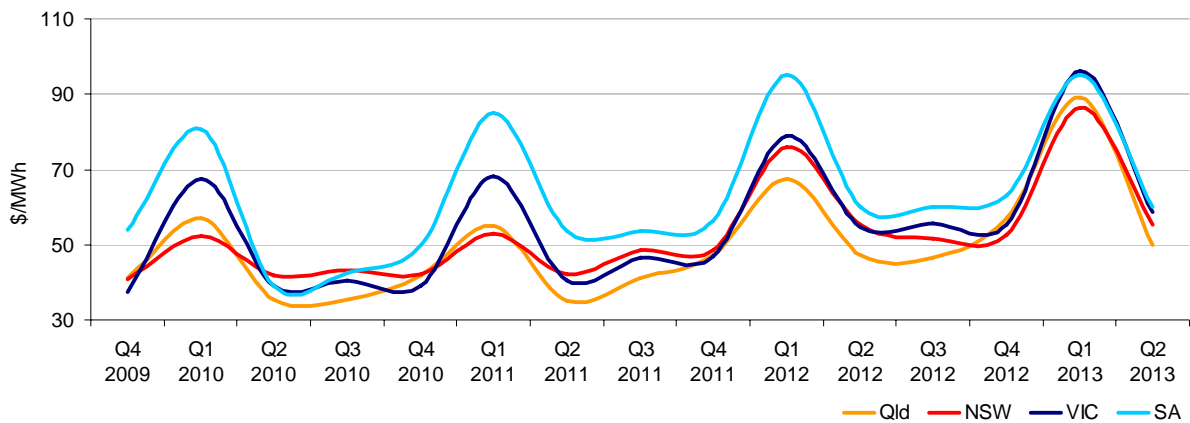


Source: d-cyphaTrade www.d-cyphatrade.com.au

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

² 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.

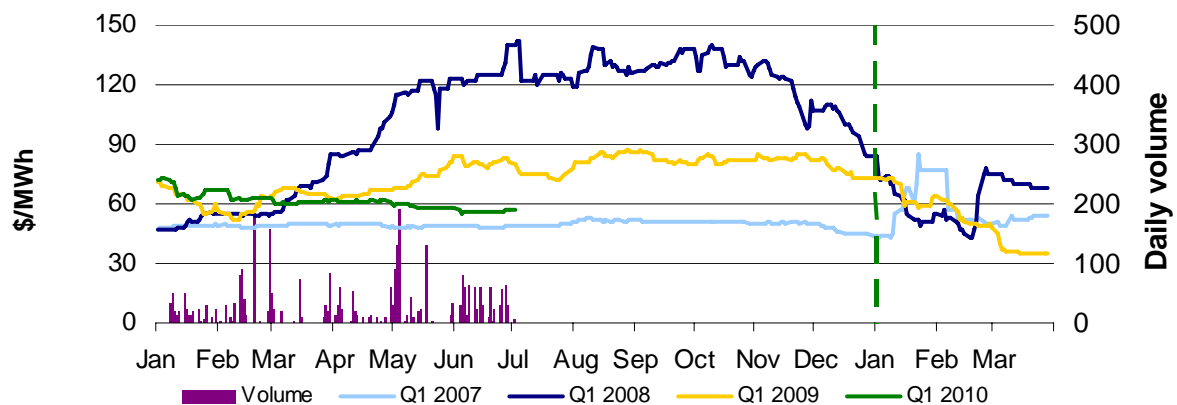
Figure 6: Quarterly base future prices Q3 2009 – Q2 2013



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

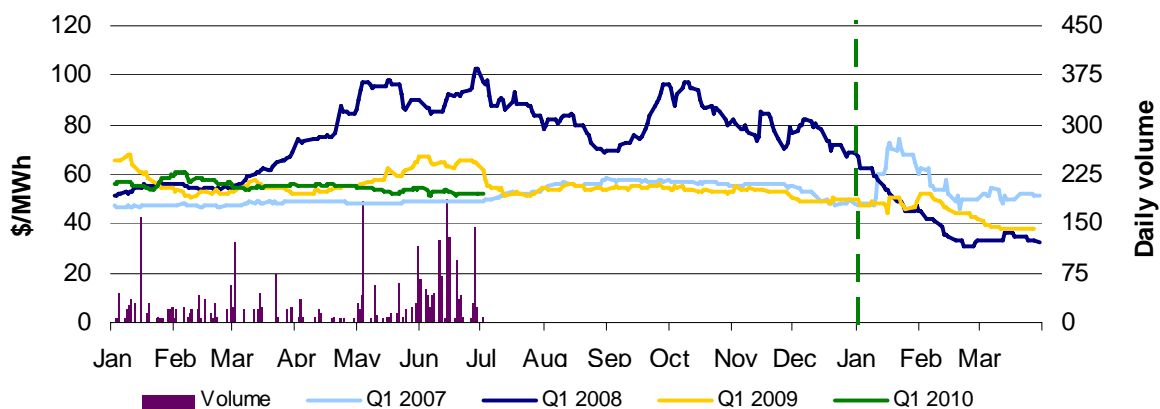
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009 and 2010. Also shown is the daily volume of Q1 2010 base contracts traded. The vertical dashed line signifies the start of the Q1 period for which the contracts are being purchased. To 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. Looking at recent trends, the expectations of spot prices for the first quarter of 2010 (indicated by the dark-green line) are generally broadly in line with longer term trends.

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



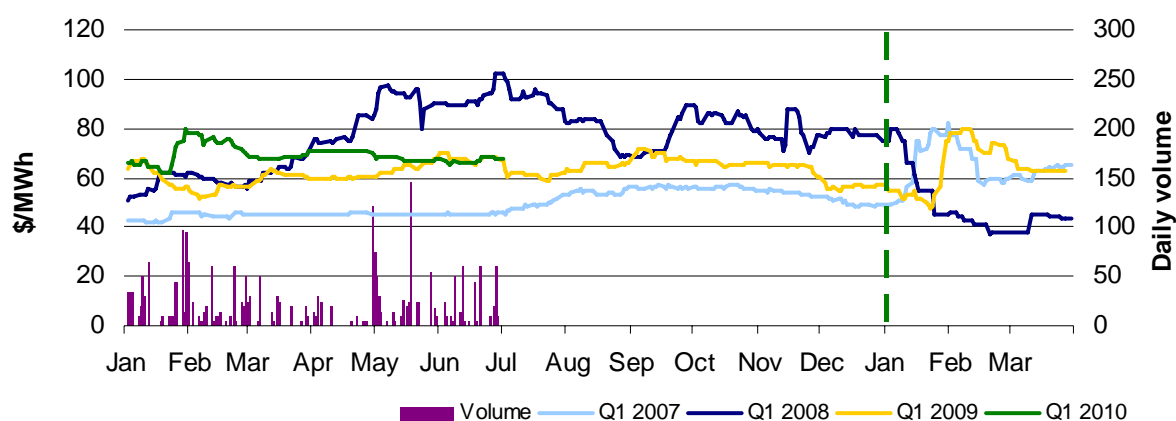
Source: d-cyphaTrade www.d-cyphatrade.com.au

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



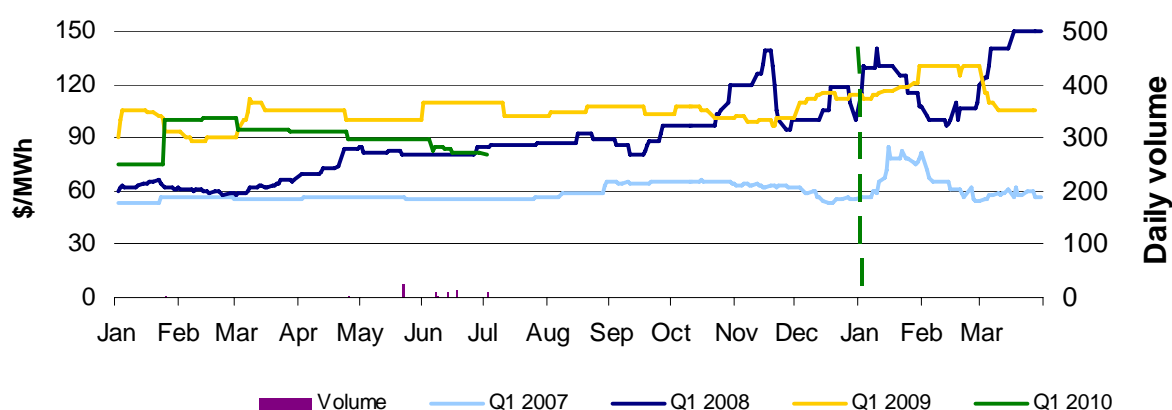
Source: d-cyphaTrade www.d-cyphatrade.com.au

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 NEMMCO, 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 90 trading intervals throughout the week where actual prices varied significantly from forecasts³. This compares to the weekly average in 2008 of 130 counts. Reasons for these variances are summarised in Figure 11⁴.

Figure 11: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
% of total above forecast	8	36	5	1
% of total below forecast	41	6	0	3

³ 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.

⁴ 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 change in total available capacity in each region from the previous week and at the price levels shown, for peak periods⁵. For example, in Queensland 41 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	-41	130	469	-124
NSW	-216	-733	-961	-329
VIC	-227	55	-155	-273
SA	75	-148	-16	-205
TAS	537	-237	32	-88
TOTAL	128	-933	-631	-1019

Ancillary services market

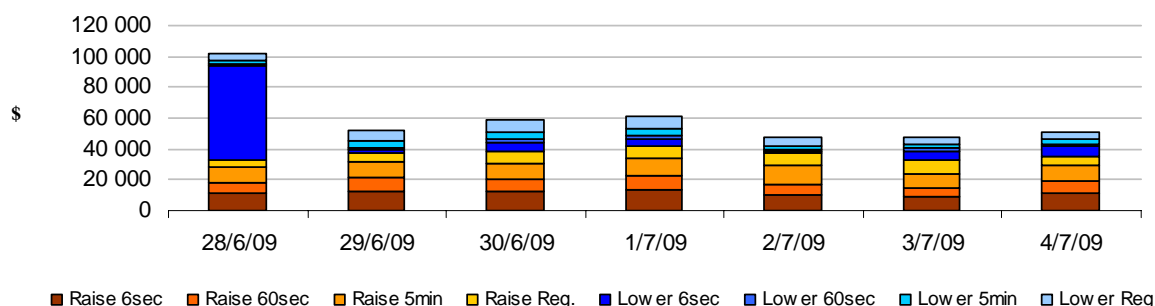
The total cost of frequency control ancillary services (FCAS) on the mainland for the week was \$260 372 or less than one per cent of turnover in the energy market.

The total cost of FCAS in Tasmania for the week was \$160 760 or nearly four per cent of turnover in the energy market.

On Sunday 28 June, the Lower 6 second service requirement increased from 84 MW at 11.35 pm to 186 MW at 11.40 pm. This saw the lower 6 second service price increase from around \$10/MWh to \$5573/MWh in Tasmania. Prices returned to previous levels in the 11.45 pm 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

July 2009

⁵ A peak period is defined as between 7 am and 10 pm on weekdays, which aligns with the SFE contract definition.

28 June - 4 July 2009

New South Wales/Queensland: There were four occasions where the spot price aligned in Queensland and New South Wales and the price was greater than three times the weekly average price and \$250/MWh. The New South Wales spot price has been used as a proxy because it is the larger region.

Thursday, 2 July

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	372.38	279.51	46.77
Demand (MW)	17 748	18 159	18 288
Available capacity (MW)	21 549	22 095	24 850
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	278.77	278.86	50.05
Demand (MW)	17 807	18 240	18 301
Available capacity (MW)	22 064	22 120	24 765
7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	278.42	278.87	44.17
Demand (MW)	17 876	18 072	18 182
Available capacity (MW)	22 093	22 170	24 765
7:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	281.35	28.63	23.11
Demand (MW)	18 064	17 744	17 742
Available capacity (MW)	21 993	22 910	24 206

At around 11 am a multiple contingency event occurred in New South Wales. The event consisted of the loss of a 330kV current transformer at the Bayswater power station switchyard, which resulted in the loss of 3125 MW of generation across the NEM (including all four Bayswater units and Mount Piper unit two, Yallourn unit three, Tarong unit four and Gladstone unit five). This resulted in a fall in the frequency across the NEM (to around 49Hz) and for automatic interruptible load (around 1110 MW) to be interrupted in all regions.

Conditions at the time saw demand up to 540 MW less than forecast 12 hours ahead for the 6 pm to 7 pm trading intervals and up to 322 MW greater than forecast for the 7.30 pm trading interval. Available capacity was up to 3301 MW less than that forecast 12 hours ahead. Prices were close to forecast for the 6.30 pm and 7 pm trading intervals.

At 12.26 pm, Delta Electricity rebid 600 MW of capacity at Vales Point from prices below \$35/MWh to above \$8600/MWh. The reason given was “NSW capacity change::capacity limit change”.

Over several rebids from 12.53 pm, Millmerran Energy Trader rebid 274 MW of capacity at Millmerran from prices below \$10/MWh to above \$9540/MWh. The reasons given were

“QNI_PD constraint::change MW distribution”, “Dispatch not equal to PD::Adj MW dist” and Change: PD:: adjust MW dist”.

Over three rebids at 1.41 pm, 3.43 pm and 5.35 pm, CS Energy reduced the available capacity at Callied B unit two by a total of 175 MW, all of which was priced below \$5/MWh. The reason given was “CALL_B_2 unit trip”. Furthermore at 5.32 pm, CS Energy rebid 55 MW of capacity across its Swan bank units, from prices below \$70/MWh to above \$9900/MWh. the reason given was “Swan B manage interconnector constraint”.

At 3.54 pm, Eraring Energy rebid 400 MW of capacity across its Eraring units one to four, from prices below \$20/MWh to above \$\$8750/MWh. The reason given was “N: Max predispach price much greater than expected @ 15.49”.

At 5.33 pm, effective from 5.40 pm, Stanwell rebid up to 150 MW of capacity across its Gladstone units one, two, three, five and six, from prices below \$60/MWh to above \$420/MWh. The reasons given were “Manage transmission constraint::change MW distrib” and “Extend previous bid::change Avail/MW distrib”. This rebid was then extended every half hour for the following three trading intervals.

There was no other significant rebidding.

Detailed NEM Price and Demand Trends

for Weekly Market Analysis
28 June - 4 July 2009



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

Financial year	QLD	NSW	VIC	SA	TAS
2009-10 (\$/MWh) YTD	28	35	26	26	24
2008-09 (\$/MWh)	36	43	49	69	62
2007-08 (\$/MWh)	58	44	51	101	57

Table 2: NEM turnover

Financial year	NEM Turnover** (\$, billion)	Energy (TWh)
2009-10 YTD	\$0.069	2
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)
Mar-09	27	26	26	35	37	0.466
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 MTD	28	35	26	26	24	0.069
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 6 July

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2010								
Price on 29 Jun (\$/MW)	56	96	52	85	68	119	81	121
Price on 06 Jul (\$/MW)	57	95	52	85	68	119	81	121
Open interest on 06 Jul	2153	140	1844	30	1735	35	53	0
Traded in the last week (MW)	160	5	215	0	100	0	10	0
Traded since 1 Jan 09 (MW)	3293	180	3174	52	2482	50	83	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
May 09 with May 08						
MW Priced <\$20/MWh	-276	-484	523	122	22	-92
MW Priced \$20 to \$50/MWh	547	198	-80	21	236	921
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	-624	-555	424	301	-80	-534
MW Priced \$20 to \$50/MWh	661	-263	-555	-73	143	-87

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

** Estimated value