WEEKLY MARKET ANALYSIS

AUSTRALIAN ENERGY REGULATOR

12 April-18 April 2009

Summary

Low demand continued to drive low average spot prices in the mainland regions. The average spot price in Queensland and South Australia was $29/MWh and $32/MWh in New South Wales and Victoria.

The average spot price in Tasmania was $54/MWh, compared to $70/MWh the previous week. Very high frequency control ancillary services (FCAS) prices occurred for the third consecutive week.

Spot market prices

Figure 1 sets out the volume weighted average prices for 12 April to 18 April 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)

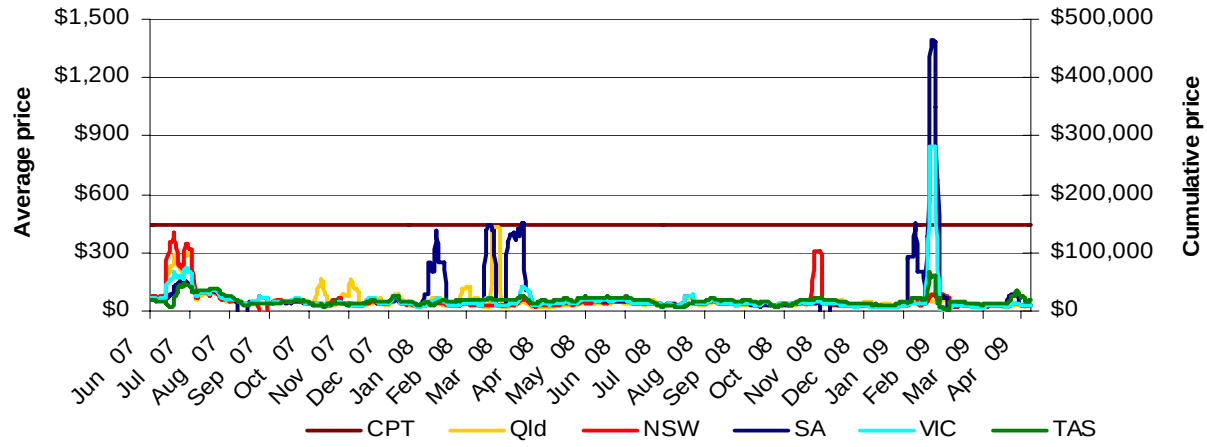
	Qld	NSW	VIC	SA	Tas
Average price for 12 April – 18 April	29	32	32	29	54
Financial year to 18 April	37	44	53	77	49
% change from previous week*	9%	10%	-3%	-12%	-23%
% change from previous year to date**	-40%	0%	4%	-33%	-12%

*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 at 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



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 20 April. 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%	49	0%	58	-1%
Financial 2010-11	51	-1%	54	0%	56	0%	66	0%
Financial 2011-12	63	0%	65	1%	67	0%	69	0%
Three year average	52	0%	55	1%	57	0%	65	0%

Source: d-cyphaTrade www.d-cyphatrade.com.au
Note: there were no trades in these products.

Figure 4 shows the $300 cap contract price for the first quarter of 2010 and the 2010 financial year and the percentage change from the previous week.

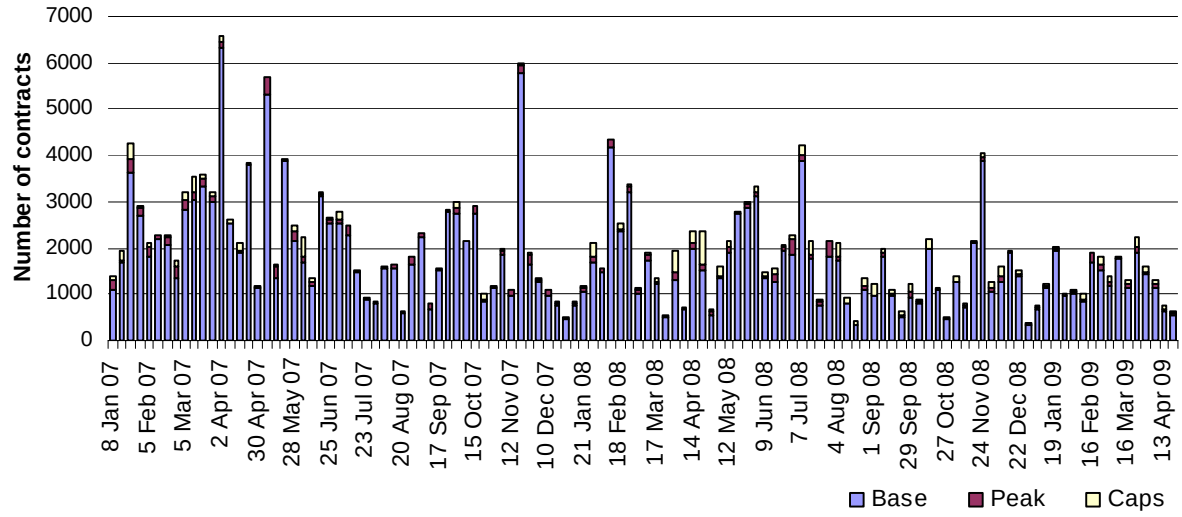
Figure 4: $300 cap contract prices ($/MWh)

	QLD		NSW		VIC		SA	
Q1 2010 (% Change)	27	0%	22	0%	35	0%	45	0%
FY 2010 (% Change)	12	1%	11	0%	12	0%	16	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

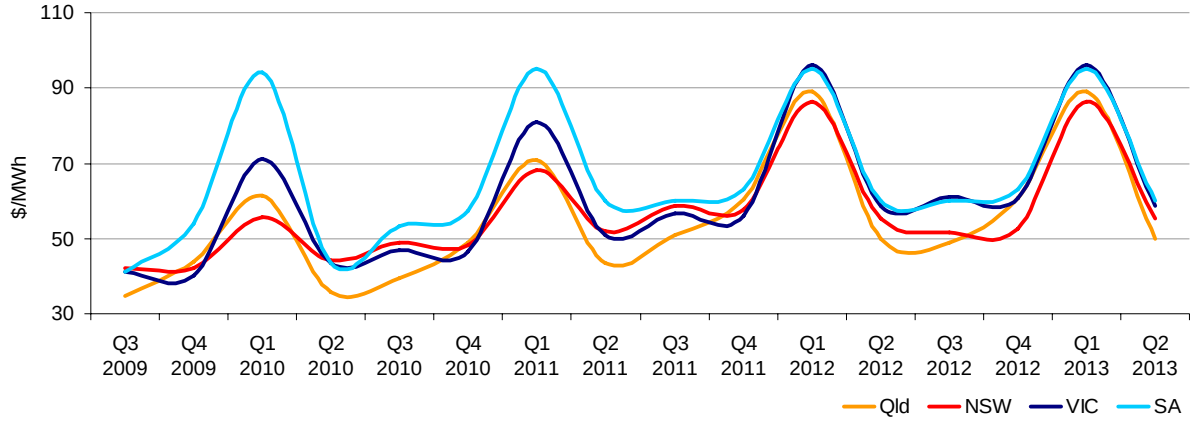


Source: d-cyphaTrade www.d-cyphatrade.com.au

[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 financial years.

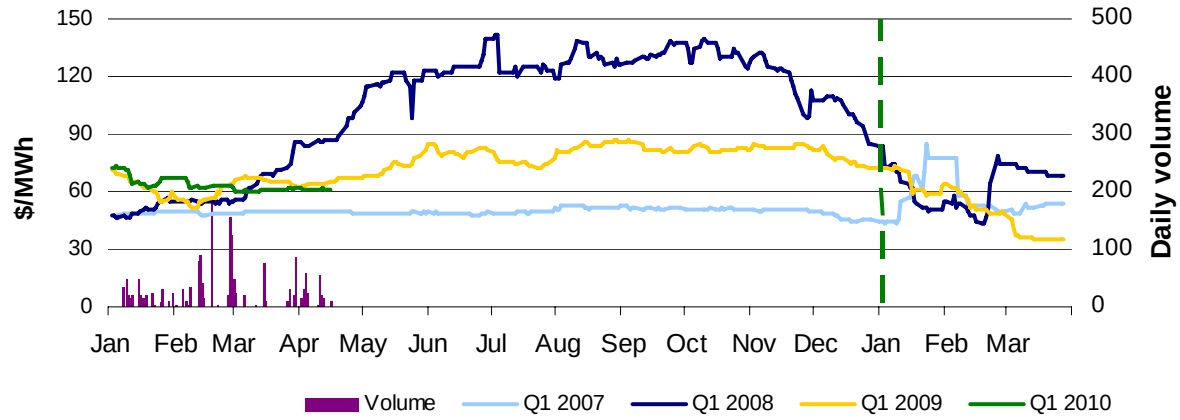
Figure 6: Quarterly base future prices Q3 2009 – Q2 2013



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

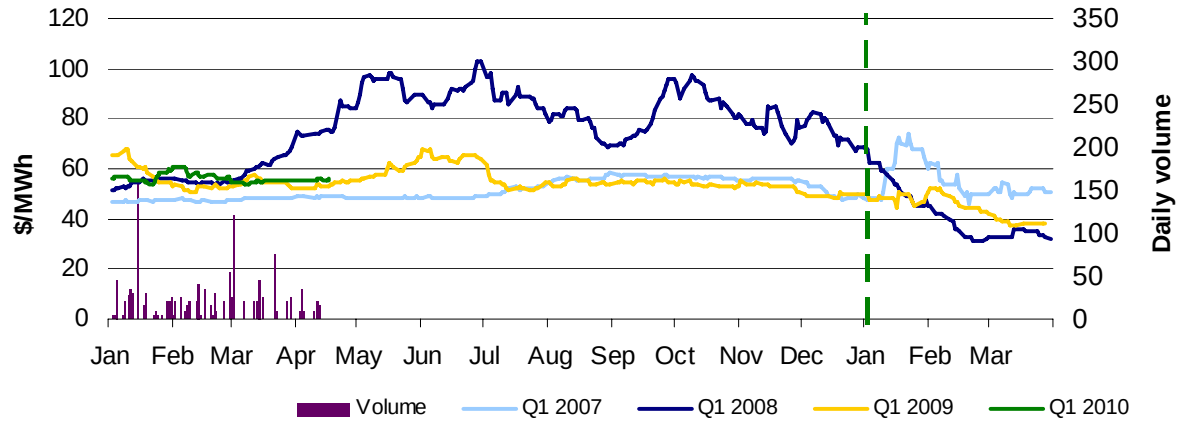
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009 and 2010. Also shown is the daily volume of Q1 2010 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

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



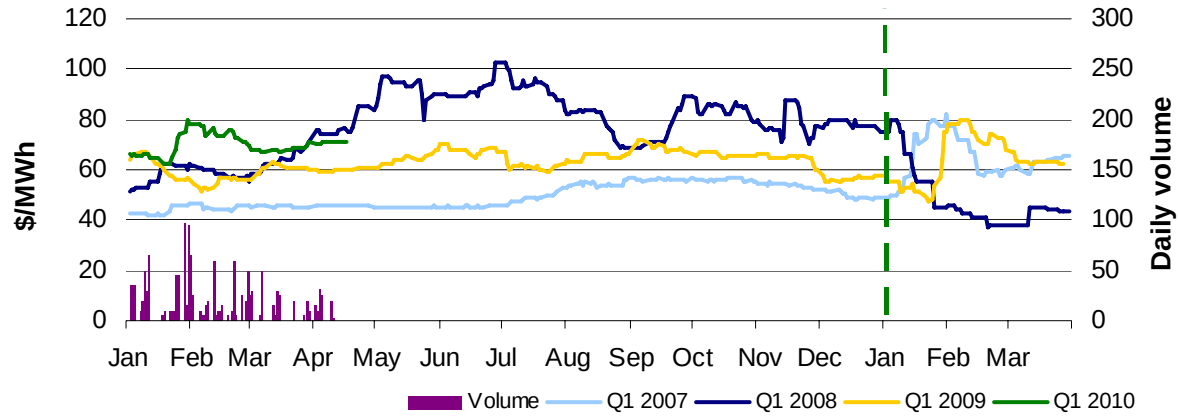
Source: d-cyphaTrade www.d-cyphatrade.com.au

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



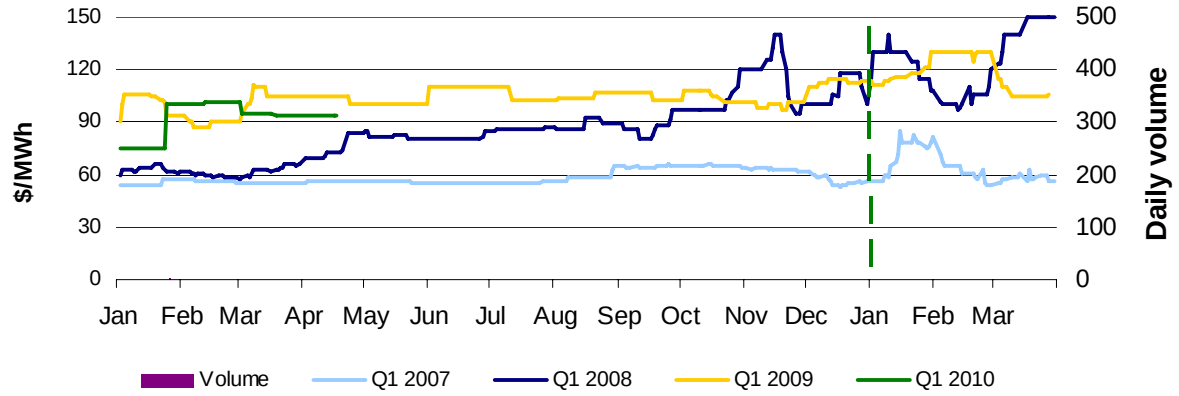
Source: d-cyphaTrade www.d-cyphatrade.com.au

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 and 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 133 trading intervals where actual prices significantly varied from forecasts[2] throughout the week. 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%	27%	0%	1%
% of total below forecast	53%	15%	0%	4%

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 the change in total available capacity in each region from the previous week and at the price levels shown, for the peak periods only[4]. For example, in Queensland 192 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

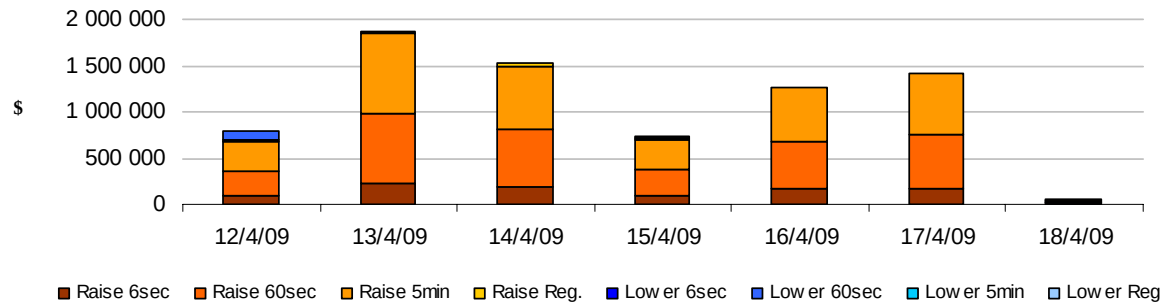
MW	<$20/MWh	Between $20 and $50/MWh	Total availability	Change in average demand
Qld	-192	65	-240	5
NSW	-528	-147	-842	-53
VIC	379	-78	262	-132
SA	117	80	42	-47
TAS	-72	65	59	-36
TOTAL	-296	-15	-719	-263

Ancillary services market

The total cost of frequency control ancillary services on the mainland for the week was $290 000 or less than one per cent of turnover in the energy market.

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



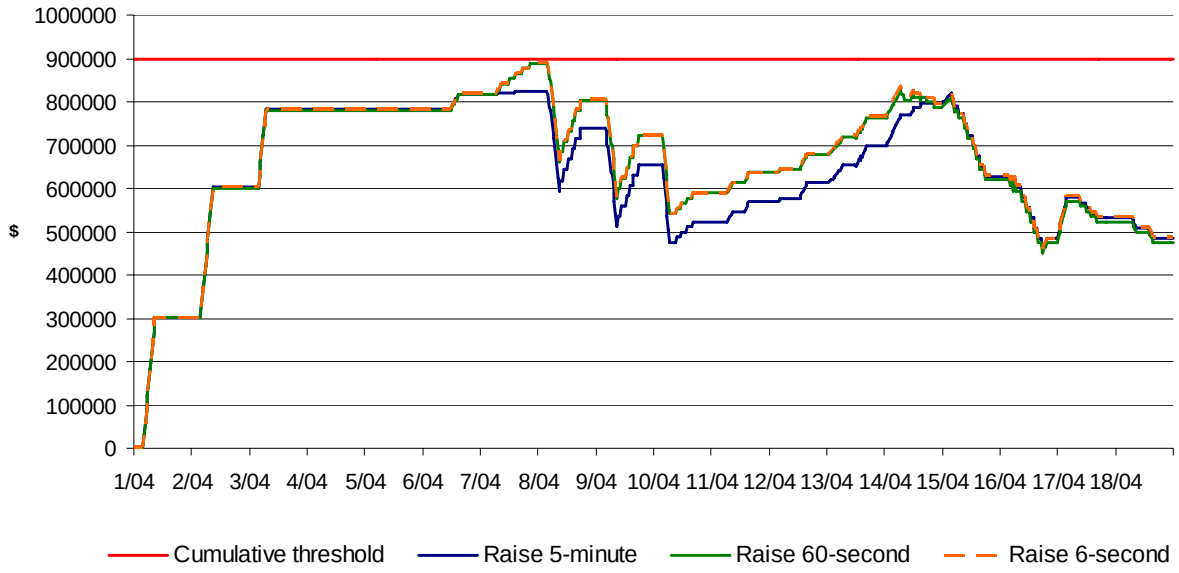
In Tasmania, raise contingency service costs accounted for around $7.3 million out of a total cost of FCAS for the week of $7.4 million.

Hydro Tasmania continued its bidding strategy for raise contingency services from the previous two weeks. Prices of raise contingency services (6-seconds, 60-seconds and 5-minutes) reached $1000/MW or more at times from Sunday through to Thursday.

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

Administered pricing is invoked where the sum of the ancillary service price for a market ancillary service in the previous 2016 dispatch intervals exceeds 6 times the CPT ($900 000). If the cost of the service exceeds this $900 000 threshold then the price will be capped at $300/MW. Figure 14 shows the cumulative price for raise contingency services since 1 April.

Figure 14: Cumulative price of raise contingency services



Australian Energy Regulator

May 2009

12 April - 18 April 2009

Tasmania: There was one occasion where the spot price in Tasmania was greater than three times the Tasmania weekly average price of $54/MWh.

Sunday, 12 April

9.00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	205.69	46.80	46.80
Demand (MW)	1140	1107	1099
Available capacity (MW)	2136	2136	2136

Conditions at the time saw demand 33 MW higher than that forecast four hours ahead and available capacity equal to that forecast four and 12 hours ahead.

From 8.55 pm to 9 pm there was a reduction in imports across Basslink from 380 MW to 193 MW leading to a five minute price of $1000/MWh. This reduction in import capability was not forecast and continued for three dispatch intervals before returning to previous levels at 9.15 pm. The reduction was related to the FCSPS (Frequency Control Special Protection System).

There was no significant rebidding.

Detailed NEM Price and Demand Trends

AUSTRALIAN ENERGY REGULATOR

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

Financial year	QLD	NSW	VIC	SA	TAS
2008-09 ($/MWh) YTD	37	44	53	77	49
2007-08 ($/MWh) YTD	62	44	51	115	55
Change*	-40%	0%	4%	-33%	-12%
2007-08 ($/MWh)	58	44	51	101	57

Table 2: NEM turnover

Financial year	NEM Turnover** ($, billion)	Energy (TWh)
2008-09 YTD	$7.836	167
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)
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	27	26	26	35	37	0.466
Apr-09 MTD	31	35	36	35	72	0.341
Q1 2009	37	43	87	161	55	3.136
Q1 2008	80	34	50	243	54	3.358
Change*	-53%	28%	73%	-34%	1%	1.09%

Table 4: ASX energy futures contract prices at 20 April

	QLD		NSW		VIC		SA	
Q1 2010	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 13 Apr ($/MW)	61	105	56	91	71	121	94	102
Price on 20 Apr ($/MW)	62	104	56	91	71	122	94	102
Open interest on 20 Apr	1590	65	1210	12	1421	35	6	0
Traded in the last week (MW)	100	0	35	0	1	0	0	0
Traded since 1 Jan 09	1725	80	1300	12	1383	40	6	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
February 09 with February 08						
MW Priced <$20/MWh	-373	32	-3	72	33	-241
MW Priced $20 to $50/MWh	328	141	149	-89	10	539
March 09 with March 08						
MW Priced <$20/MWh	-557	-386	119	-246	-50	-1121
MW Priced $20 to $50/MWh	562	347	129	-1	-2	1035
April 09 with April 08						
MW Priced <$20/MWh	-549	-685	266	362	-130	-735
MW Priced $20 to $50/MWh	698	-182	-315	31	-19	212

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