

WEEKLY ELECTRICITY MARKET ANALYSIS



13 June – 19 June 2010

Summary

The weekly average spot price ranged from \$20/MWh in Queensland to \$32/MWh in South Australia.

Spot market prices

Figure 1 sets out the volume weighted average prices for the week 13 June to 19 June 2010 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
Average price for 13 June – 19 June 2010	20	25	24	32	25
% change from previous week*	-20	-21	-22	-11	-24
09/10 financial YTD	38	53	42	84	30
% change from 08/09 financial YTD**	3	22	-15	20	-52

*The percentage change between last week's average spot price and the average price for the previous week. Calculated on VWA prices prior to rounding.

**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. Percentage changes are calculated on VWA prices prior to rounding.

The AER provides further information if the spot price exceeds three times the weekly average and is above \$250/MWh. Details of these events are attached in Appendix A. Longer term market trends are attached in Appendix B¹.

Financial markets

Figures 2 to 9 show futures contract² prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 21 June 2010. Figure 2 shows the base futures contract prices for the next three calendar years, and the three year average. Also shown are percentage changes³ compared to the previous week.

¹ Monitoring the performance of the wholesale market is a key part of the AER's role and an overview of the market's performance in the long-term is provided on the AER website. Long-term statistics can be found there on, amongst other things, demand, spot prices, contract prices and frequency control ancillary services prices.

To access this information go to

www.aer.gov.au -> Monitoring, reporting and enforcement -> Electricity market reports -> Long-term analysis.

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.

³ Calculated on prices prior to rounding.

Figure 2: Base calendar year futures contract prices (\$/MWh)

	QLD		NSW		VIC		SA	
Calendar Year 2011	33*	-1%	42*	0%	39*	0%	43	0%
Calendar Year 2012	35	0%	43	0%	41*	-1%	47	0%
Calendar Year 2013	58	0%	61	0%	65	0%	69	0%
Three year average	42	0%	49	0%	48	0%	53	0%

Source: d-cyphaTrade www.d-cyphatrade.com.au
 * denotes trades in the product.

Figure 3 shows the \$300 cap contract price for the first quarter of 2011 and the 2011 calendar year and the percentage change⁴ from the previous week.

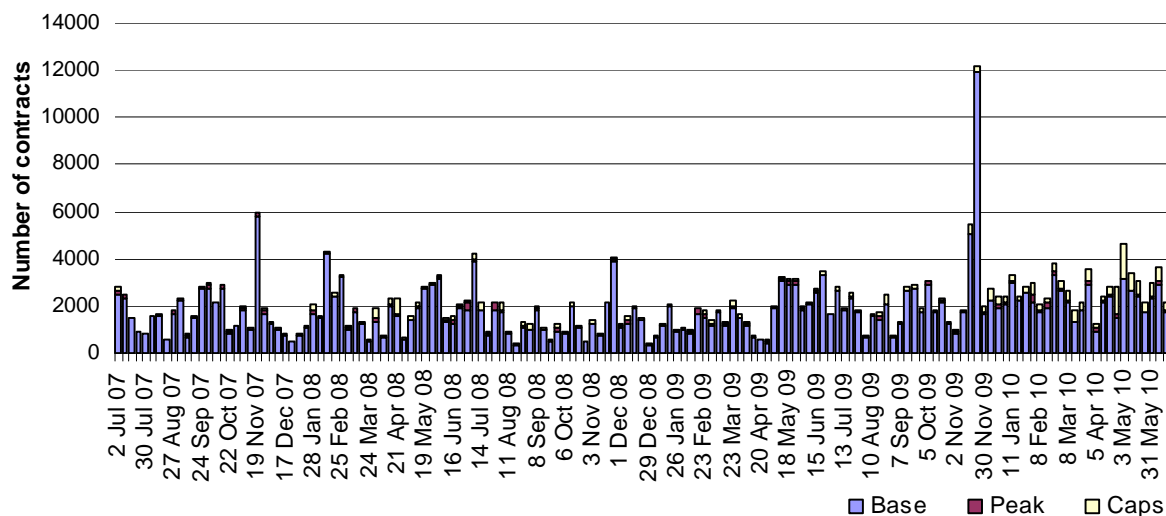
Figure 3: \$300 cap contract prices (\$/MWh)

	QLD		NSW		VIC		SA	
Q1 2011 (% Change)	18	-4%	21*	-2%	27	0%	40	0%
2011 (% Change)	8	-3%	12	0%	11	0%	14	0%

Source: d-cyphaTrade www.d-cyphatrade.com.au
 * denotes trades in the product.

Figure 4 shows the weekly trading volumes for base, peak and cap contracts. The date represents the end of the trading week.

Figure 4: Number of exchange traded contracts per week

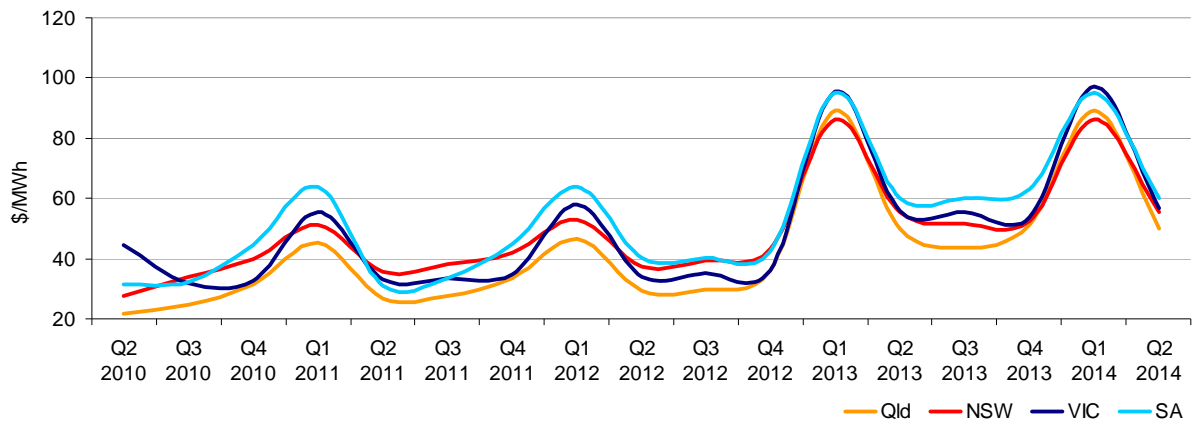


Source: d-cyphaTrade www.d-cyphatrade.com.au

⁴ Calculated on prices prior to rounding.

Figure 5 shows the prices for base contracts for each quarter for the next four financial years.

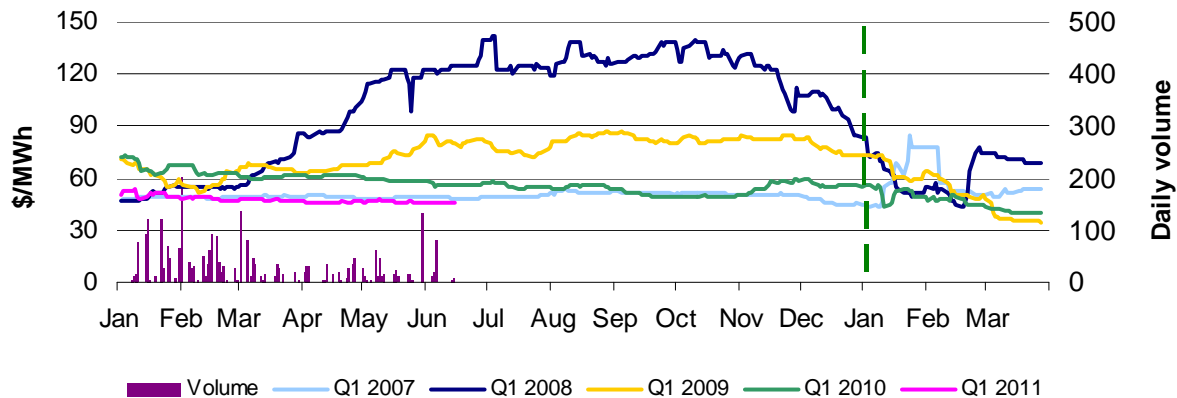
Figure 5: Quarterly base future prices Q2 2010 – Q2 2014



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

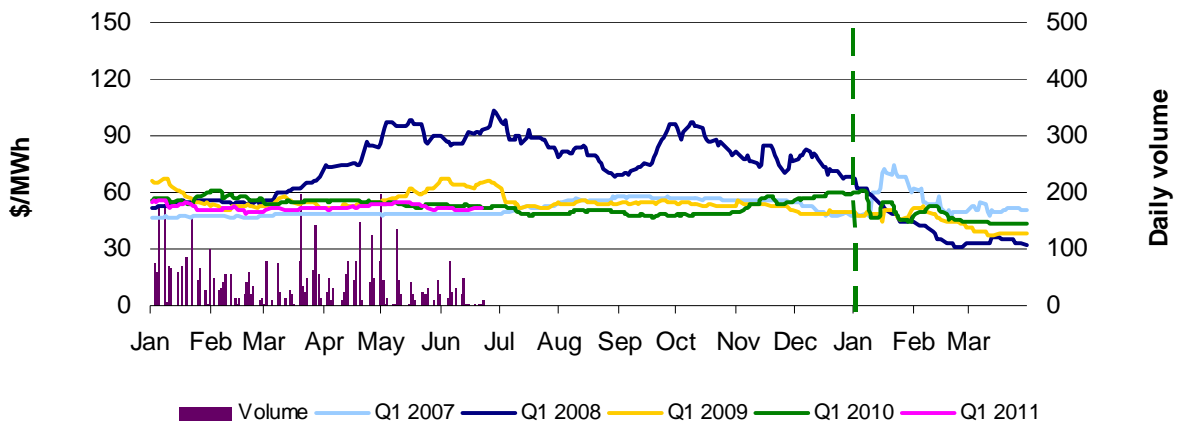
Figures 6-9 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009, 2010 and 2011. Also shown is the daily volume of Q1 2011 base contracts traded. The vertical dashed line signifies the start of the Q1 period for which the contracts are being purchased. To understand the diagrams, the dark-blue line demonstrates that throughout the middle of 2007, the market had an expectation of very high spot prices in the first quarter of 2008.

Figure 6: Queensland Q1 2007, 2008, 2009, 2010 and 2011



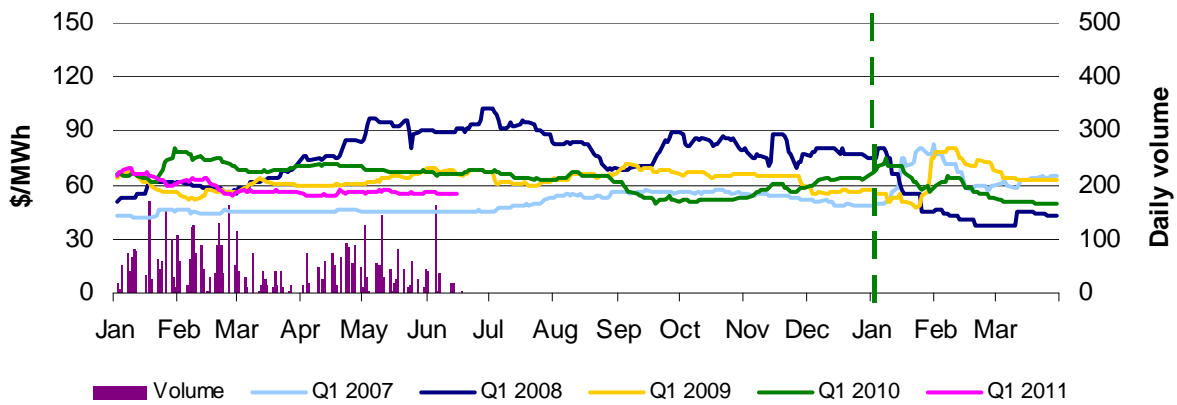
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 7: New South Wales Q1 2007, 2008, 2009, 2010 and 2011



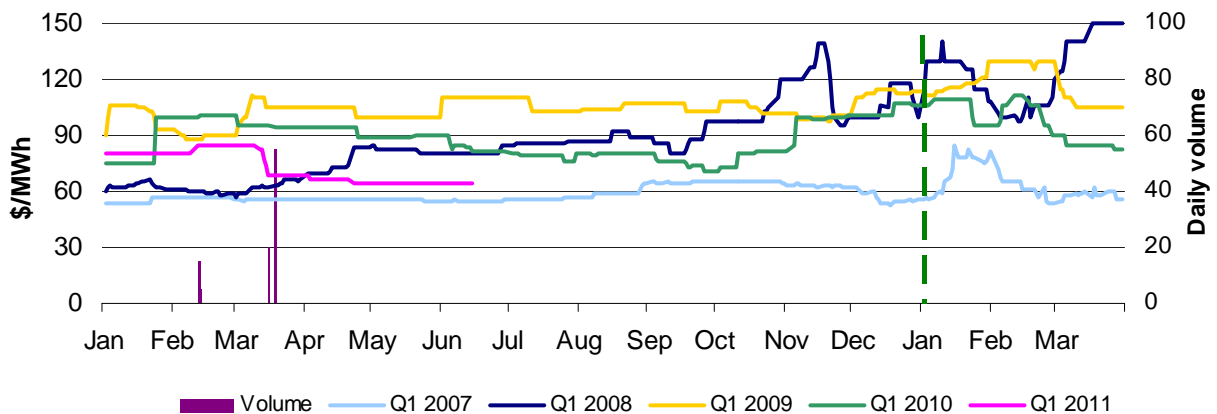
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 8: Victoria Q1 2007, 2008, 2009, 2010 and 2011



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

Figure 9: South Australia Q1 2007, 2008, 2009, 2010 and 2011



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

*The daily volume scale for South Australia is smaller than for other regions to reflect the lower liquidity in the market in South Australia.

**This graph was modified on 23/7/2010 to correct an error in the original report.

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) 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 51 trading intervals throughout the week where actual prices varied significantly from forecasts⁵. This compares to the weekly average in 2009 of 103 counts. Reasons for these variances are summarised in Figure 10⁶.

Figure 10: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
% of total above forecast	3	39	0	5
% of total below forecast	45	5	1	2

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 11 shows the weekly change in total available capacity at various price levels during peak periods⁷. For example, in Queensland 194 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 11: 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	194	6	491	-158
NSW	204	-92	132	-184
VIC	22	41	333	-239
SA	-156	-2	-164	-10
TAS	378	-286	55	-3
TOTAL	642	-333	847	-594

⁵ 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.

⁶ 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.

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

Ancillary services market

The total cost of frequency control ancillary services (FCAS) on the mainland for the week was \$141 800 or less than one per cent of energy turnover on the mainland.

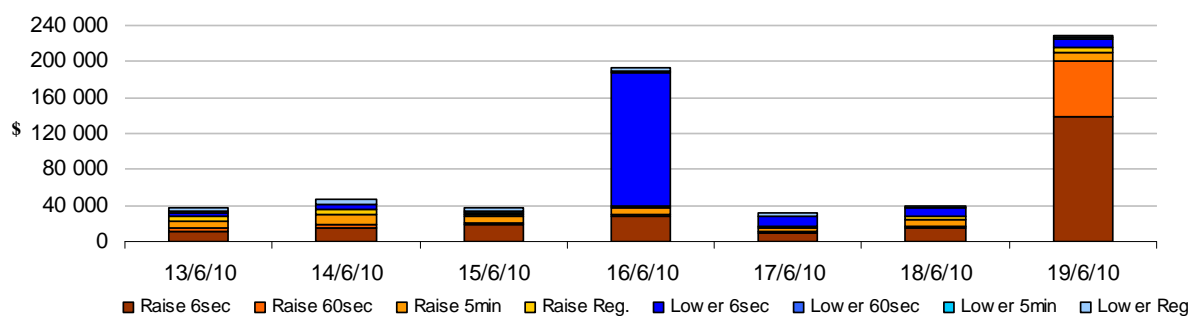
The total cost of FCAS in Tasmania for the week was \$472 670 or around nine per cent of energy turnover in Tasmania.

On Wednesday 16 June, there was a step reduction in the availability of low-priced lower 6-second ancillary service offers, from 168 MW at 11.20 pm to 159 MW at 11.25 pm. However, the lower 6-second service requirement in Tasmania remained at around 167 MW. As a result, 8 MW of high-priced lower 6-second services (above \$9000/MW) was dispatched. Accordingly, the lower 6-second service price increased from \$0.40/MW at 11.20 pm to \$10 000/MW at 11.25 pm, contributing \$140 000 to the total cost for the week.

On Saturday 19 June, prices for raise 6-second services increased significantly for two dispatch intervals (from \$24/MW at 5.10 pm to \$3705/MW at 5.15 pm and from \$316/MW at 5.25 pm to \$3676/MW at 5.30 pm). At 5.15 pm, Basslink was in the 'no go zone' and was therefore unable to import FCAS from the mainland. As a result, all FCAS was required to be sourced locally, with the requirement for local raise 6-second services increasing from 61 MW at 5.10 pm to 171 MW at 5.15 pm. At 5.30 pm the raise 6-second service requirement reached 180 MW. For both high-priced dispatch intervals generation was constrained-off in the energy market to allow increased dispatch of ancillary services. The co-optimisation between energy and FCAS markets resulted in price spikes of above \$3000/MWh for raise 6-second FCAS. The price for the raise 60-second service increased from \$1.50/MW at 5.15 pm to \$737/MW at 5.20 pm, also as a result of high local requirements, constrained-off generation and the co-optimisation of energy and FCAS, together , contributing \$180 000 to the total cost for the week.

Figure 12 shows the daily breakdown of cost for each FCAS for the NEM.

Figure 12: Daily frequency control ancillary service cost



Detailed Market Analysis



AUSTRALIAN ENERGY
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13 June – 19 June 2010

South Australia:

There was one occasion where the spot price in South Australia was greater than three times the South Australia weekly average price of \$32/MWh and above \$250/MWh.

Tuesday, 15 June

6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	307.97	86.30	54.77
Demand (MW)	2432	2239	2136
Available capacity (MW)	2488	2518	2556

Demand was 193 MW greater than forecast four hours ahead and 296 MW greater than forecast 12 hours ahead. Available capacity was 30 MW less than forecast four hours ahead and around 70 MW less than forecast 12 hours ahead.

With no capacity priced between \$40/MWh and \$300/MWh, and demand around 200 MW greater than forecast, higher priced capacity was dispatched to meet the rapidly increasing demand that occurs at this time of the day. The 5-minute price increased from \$130/MWh at 6.10 pm to \$1000/MWh at 6.20 pm and fell to below \$130/MWh at 6.25 pm.

There was no significant rebidding.

Detailed NEM Price and Demand Trends

for Weekly Market Analysis
13 June - 19 June 2010



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

Financial year	QLD	NSW	VIC	SA	TAS
2009-10 (\$/MWh) (YTD)	38	53	42	84	30
2008-09 (\$/MWh) (YTD)	37	43	50	70	63
Change*	3%	22%	-15%	20%	-52%
2008-09 (\$/MWh)	36	43	49	69	62

Table 2: NEM turnover

Financial year	NEM Turnover** (\$, billion)	Energy (TWh)
2009-10 (YTD)	\$9.400	199
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)
Feb-10	45	66	90	213	23	1.235
Mar-10	25	27	24	25	26	0.443
Apr-10	22	25	84	32	25	0.625
May-10	22	29	32	31	61	0.509
Jun-10 (MTD)	22	30	30	35	31	0.319
Q1 2010	46	52	67	134	27	3.014
Q1 2009	37	43	87	161	55	3.136
Change*	24%	20%	-23%	-17%	-52%	-3.89%

Table 4: ASX energy futures contract prices at end of 21 June

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2011								
Price on 11 Jun (\$/MW)	46	79	51	87	55	100	64	100
Price on 21 Jun (\$/MW)	45	78	51	85	56	98	64	100
Open interest on 21 Jun	1879	123	3211	135	3575	20	45	0
Traded in the last week (MW)	11	1	85	0	45	0	0	0
Traded since 1 Jan 10 (MW)	2669	94	4496	145	4918	20	95	0
Settled price for Q1 10(\$/MW)	40	65	44	68	50	89	83	160

Table 5: Changes to availability of low priced generation capacity offered to the market

Comparison:	QLD	NSW	VIC	SA	TAS	NEM
April 10 with April 09						
MW Priced <\$20/MWh	1050	-23	-169	118	158	1134
MW Priced \$20 to \$50/MWh	-673	895	289	-240	636	907
May 10 with May 09						
MW Priced <\$20/MWh	1400	-590	-619	172	155	517
MW Priced \$20 to \$50/MWh	-707	1109	57	-121	213	551
June 10 with June 09 (MTD)						
MW Priced <\$20/MWh	892	-607	-341	111	93	148
MW Priced \$20 to \$50/MWh	-730	591	195	-43	427	440

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

** Estimated value