WEEKLY ELECTRICITY MARKET ANALYSIS

AUSTRALIAN ENERGY REGULATOR

1 August – 7 August 2010

Summary

On Saturday 7 August the spot price in Tasmania reached $5720/MWh at 9 am and $12 400/MWh at 6.30 pm – the highest-ever spot price. This drove the weekly average spot price in Tasmania to $101/MWh. In accordance with clause 3.13.7 of the National Electricity Rules, the AER will issue a separate report into the circumstances that led to the spot price exceeding $5000/MWh.

The weekly average spot price on the mainland ranged from $22/MWh in Queensland to $33/MWh in South Australia.

On Wednesday 4 August, the spot price in South Australia was less than zero for the 5.30 am and 6 am trading intervals, reaching a minimum of -$370/MWh.

Spot market prices

Figure 1 sets out the volume weighted average prices for the week 1 to 7 August 2010 and the 10/11 financial year 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 1 – 7 August 2010	22	30	32	33	101
% change from previous week*	15	9	17	13	160
10/11 financial (YTD)	22	28	28	31	44
% change from 09/10 financial (YTD) **	-22	-12	4	9	65

*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 and the average spot price 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 B[1].

[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.

Financial markets

Figures 2 to 9 show futures contract[2] prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 9 August 2010. Figure 2 shows the base futures contract prices for the next three calendar years, and the three year average. Also shown are percentage changes[3] compared to the previous week.

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

	QLD		NSW		VIC		SA	
Calendar Year 2011	32	0%	41*	1%	38*	0%	44	-2%
Calendar Year 2012	34*	1%	44*	0%	40*	-1%	49	5%
Calendar Year 2013	58	0%	60	0%	59	0%	69	0%
Three year average	41	0%	48	0%	46	0%	54	1%

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 change[4] from the previous week.

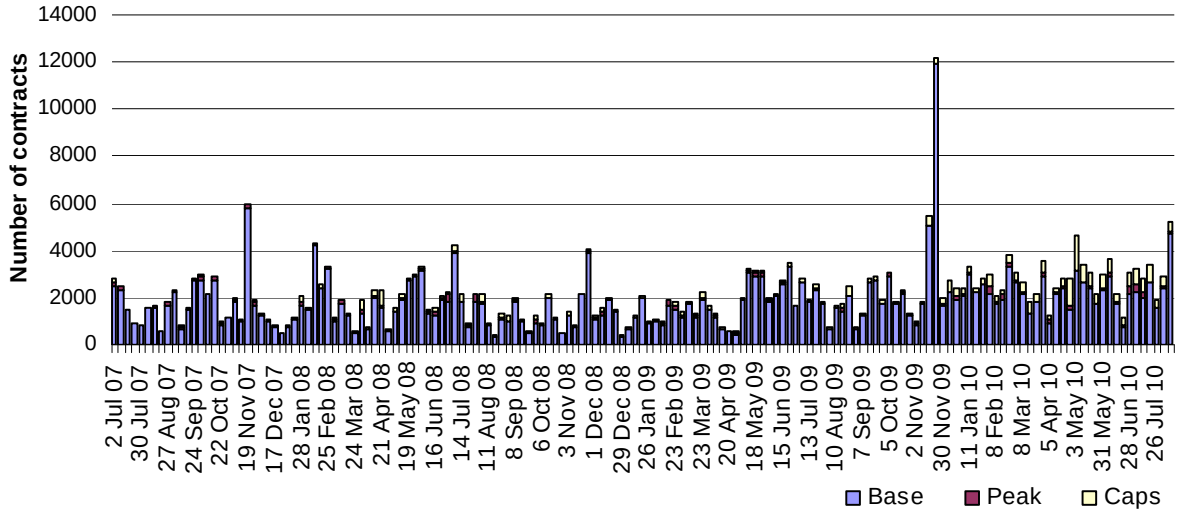
Figure 3: $300 cap contract prices ($/MWh)

	QLD		NSW		VIC		SA	
Q1 2011 (% Change)	18*	0%	21*	-1%	26*	-4%	38	0%
2011 (% Change)	8	-1%	11	-1%	10	-2%	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

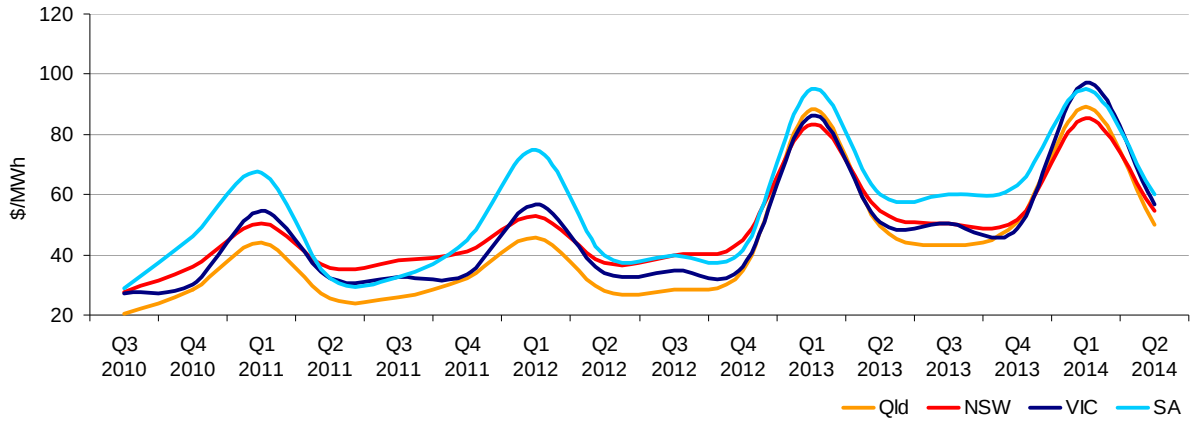
[2] Futures contracts traded on the SFE are listed by d-cyphaTrade (www.d-cyphatrade.com.au). A futures contract is typically for one MW of electrical energy per hour based on a fixed load profile. A base load profile is defined as the base load period from midnight to midnight Monday to Sunday over 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.

[4] Calculated on prices prior to rounding.

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

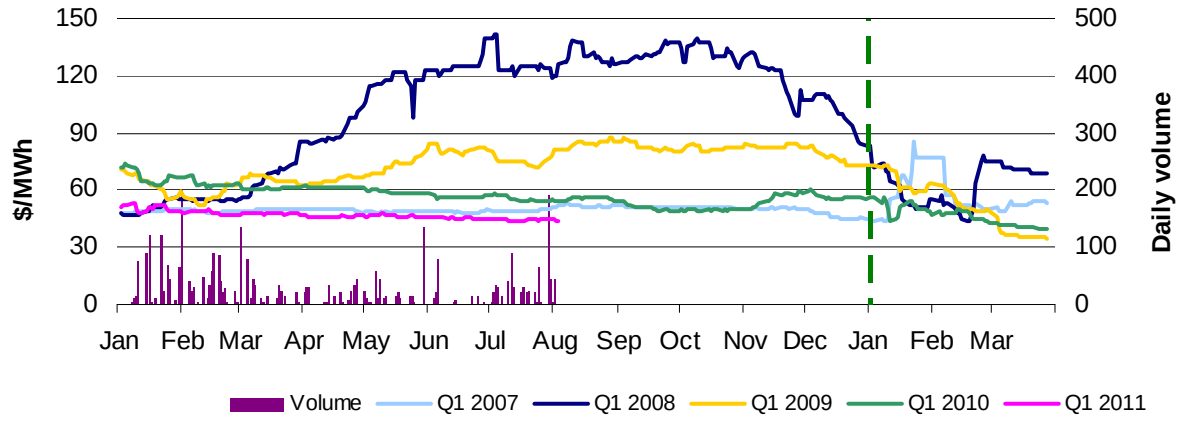
Figure 5: Quarterly base future prices Q3 2010 – Q2 2014



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

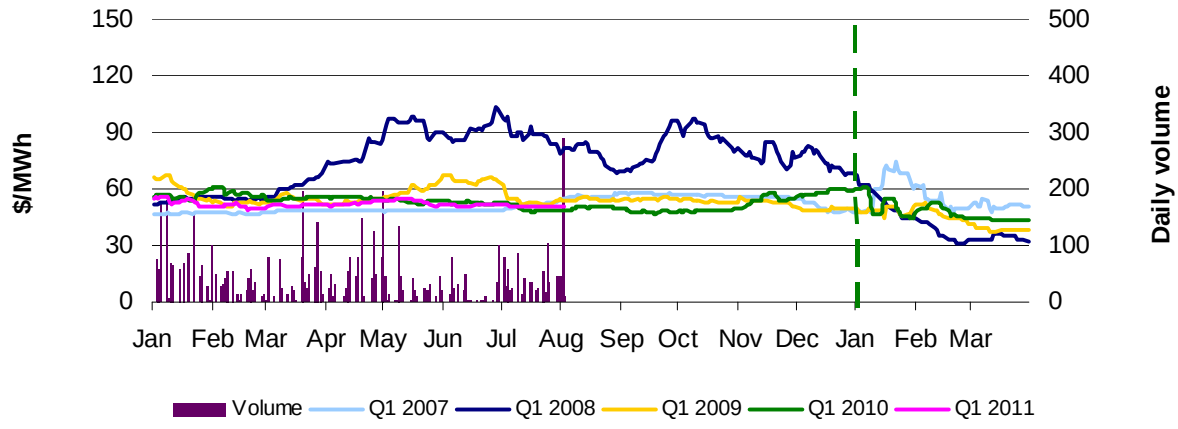
Figures 6-9 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009, 2010 and 2011. Also shown is the daily volume of Q1 2011 base contracts traded. The vertical dashed line signifies the start of the Q1 period for which the contracts are being purchased. 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



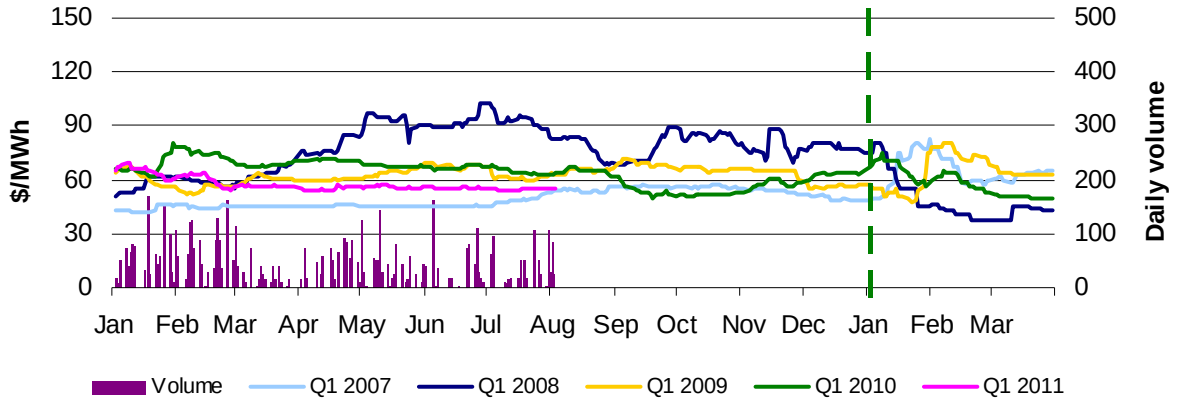
Source: d-cyphaTrade www.d-cyphatrade.com.au

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



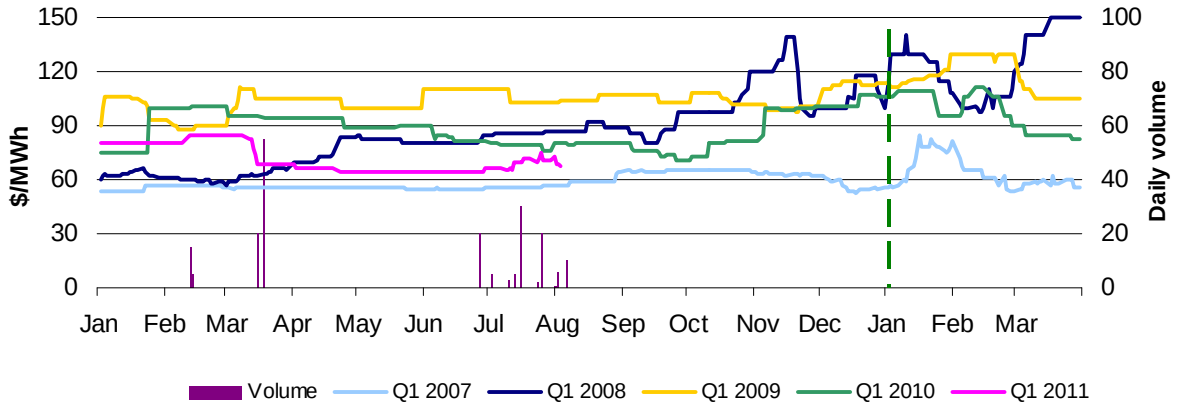
Source: d-cyphaTrade www.d-cyphatrade.com.au

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.

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 57 trading intervals throughout the week where actual prices varied significantly from forecasts[5]. This compares to the weekly average in 2009 of 103 counts. Reasons for these variances are summarised in Figure 10[6].

Figure 10: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
% of total above forecast	13	32	2	2
% of total below forecast	32	14	0	5

[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.

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 periods[7]. For example, in Queensland 1 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	1	35	-209	-15
NSW	522	-130	71	82
VIC	-652	316	-334	51
SA	-1	46	11	157
TAS	-187	93	-5	-12
TOTAL	-317	360	-466	263

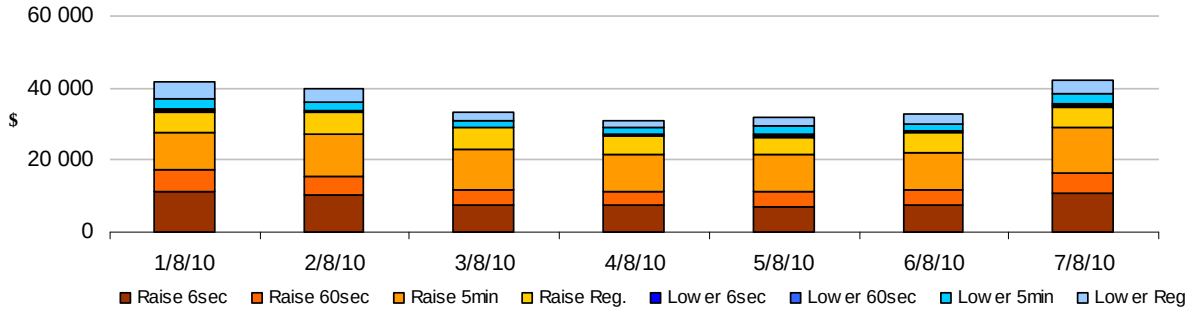
Ancillary services market

The total cost of frequency control ancillary services (FCAS) on the mainland for the week was $221 000 or less than one per cent of energy turnover on the mainland.

The total cost of FCAS in Tasmania for the week was $31 000 or less than one per cent of energy turnover in Tasmania.

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

Figure 12: Daily frequency control ancillary service cost



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

Detailed Market Analysis

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Tasmania:

There were four occasions where the spot price in Tasmania was greater than three times the Tasmania weekly average price of $101/MWh and above $250/MWh.

Saturday, 7 August

9:00 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5720.21	2383.38	12 410.00
Demand (MW)	1434	1448	1411
Available capacity (MW)	2551	2551	2551
10:00 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	833.45	12 410.10	12 410.00
Demand (MW)	1426	1465	1427
Available capacity (MW)	2551	2551	2551
5:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1646.82	79.03	5282.95
Demand (MW)	1443	1450	1450
Available capacity (MW)	2551	2551	2551
6:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 400.26	79.03	260.14
Demand (MW)	1502	1514	1515
Available capacity (MW)	2551	2551	2551

Conditions on the day saw demand close to forecast and available capacity as forecast.

In accordance with clause 3.13.7 of the Electricity Rules, the AER will issue a separate report into the circumstances that led to the spot price exceeding $5000/MWh. This report will also analyse the other high prices that occurred on this day.

Detailed NEM Price and Demand Trends

for Weekly Market Analysis
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Table 1: Financial year to date spot market volume weighted average price

Financial year	QLD	NSW	VIC	SA	TAS
2010-11 ($/MWh) YTD	22	28	28	31	44
2009-10 ($/MWh) YTD	28	32	27	29	27
Change*	-22%	-12%	4%	9%	65%
2009-10 ($/MWh)	37	52	42	82	30

Table 2: NEM turnover

Financial year	NEM Turnover** ($, billion)	Energy (TWh)
2010-11 (YTD)	$0.631	23
2009-10	$9.643	206
2008-09	$9.413	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-10	22	25	84	32	25	0.625
May-10	22	29	32	31	61	0.509
Jun-10	23	35	33	38	32	0.563
Jul-10	22	28	27	31	31	0.495
Aug-10 (MTD)	22	30	32	33	101	0.137
Q2 2010	22	30	48	34	40	1.697
Q2 2009	32	35	34	35	106	1.918
Change*	-30%	-16%	40%	-5%	-63%	-11.51%

Table 4: ASX energy futures contract prices at end of 9 August

	QLD		NSW		VIC		SA	
Q1 2011	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 02 Aug ($/MW)	45	77	50	84	55	97	71	100
Price on 09 Aug ($/MW)	44	77	50	83	55	97	67	100
Open interest on 09 Aug	1877	123	3103	225	2962	40	121	0
Traded in the last week (MW)	285	0	435	0	246	0	17	0
Traded since 1 Jan 10 (MW)	3445	114	5776	246	6071	40	197	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
June 10 with June 09						
MW Priced <$20/MWh	959	-520	-482	46	227	230
MW Priced $20 to $50/MWh	-743	378	301	-43	345	237
July 10 with July 09						
MW Priced <$20/MWh	977	-476	1	77	-90	489
MW Priced $20 to $50/MWh	-445	328	180	72	382	518
August 10 with August 09 (MTD)						
MW Priced <$20/MWh	1320	-434	-1146	242	-195	-212
MW Priced $20 to $50/MWh	-454	160	749	98	418	972

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