# WEEKLY MARKET ANALYSIS

#### 19 July-25 July 2009

#### Summary

Average spot prices were \$24/MWh in Queensland, \$25/MWh in Victoria and Tasmania and \$26/MWh in New South Wales and South Australia. Average demand and average spot prices were lower than last week in all regions.

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#### Spot market prices

Figure 1 sets out the volume weighted average prices for 19 July to 25 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 19 – 25 July	24	26	25	26	25
% change from previous week*	-19	-18	-17	-17	-14
09/10 financial YTD	29	35	29	30	28
% change from 08/09 financial YTD **	-28	-22	-40	-40	8

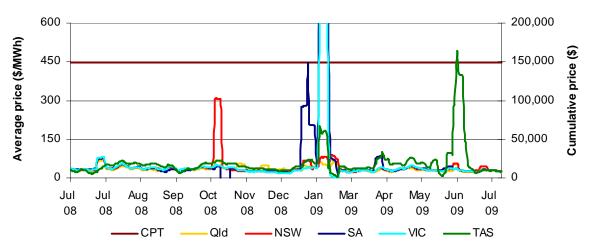
\*The percentage change between last week's average spot price and the average price for the previous week.

\*\*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.

Longer term market trends are attached in Appendix A.

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, average price, and CPT



#### **Financial markets**

Figures 3 to 10 show futures contract<sup>1</sup> prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 27 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	40*	-1%	41*	0%	42*	-1%	50	-5%
Calendar Year 2011	43*	-2%	45	-2%	46*	-3%	59	0%
Calendar Year 2012	53	-1%	59	0%	61	0%	69	0%
Three year average	45	-1%	48	-1%	50	-1%	59	-1%

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

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

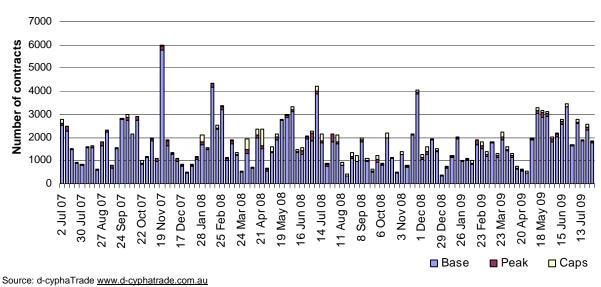
Figure 4 shows the \$300 cap contract price for the first quarter of 2010 and the 2009-10 financial year and the percentage change from the previous week.

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

	Q	LD	NSW		VIC		SA	
Q1 2010 (% change)	26	0	21	0	34	0	45	0
FY 2010 (% change)	10	-1	9	-5	11	-3	18	-3

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

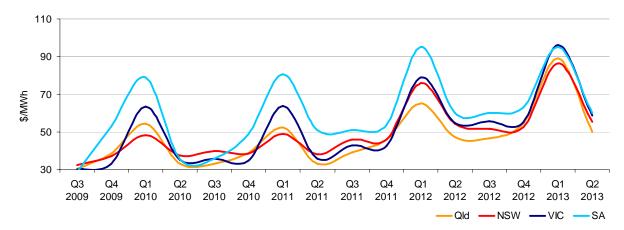
Figure 5 shows the weekly trading volumes for base, peak and cap contracts. The date represents the end of the trading week.



#### Figure 5: Number of exchange traded contracts per week

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

<sup>&</sup>lt;sup>1</sup> Futures contracts on the SFE are listed by d-cyphaTrade (<u>www.d-cyphatrade.com.au</u>). 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

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.



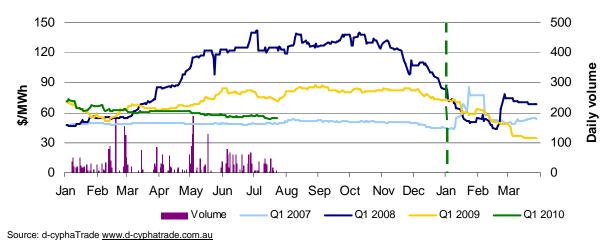
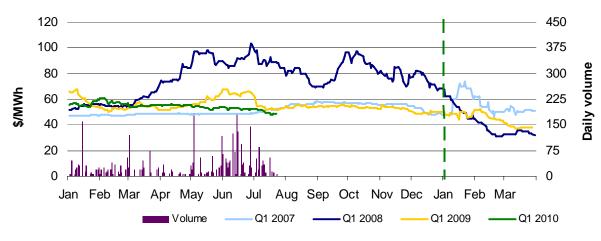


Figure 8: New South Wales Q1 2007, 2008, 2009 and 2010



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

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

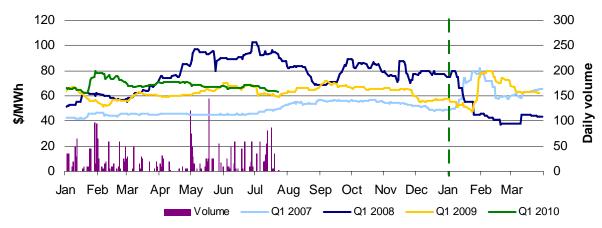
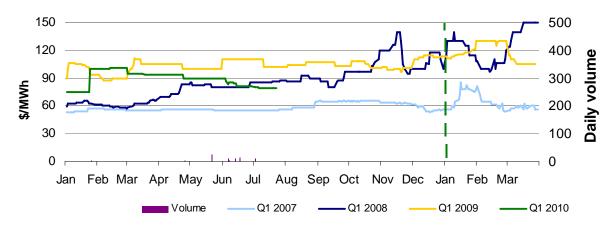




Figure 10: South Australia Q1 2007, 2008, 2009 and 2010



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 the Australian Energy Market Operator (AEMO), 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 forecasts<sup>2</sup>. This compares to the weekly average in 2008 of 130 counts. Reasons for these variances are summarised in Figure 11<sup>3</sup>.

	Availability	Demand	Network	Combination
% of total above forecast	0	6	0	0
% of total below forecast	86	5	0	3

<sup>&</sup>lt;sup>2</sup> 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.

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

<sup>&</sup>lt;sup>3</sup> 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 weekly change in total available capacity at various price levels during peak periods<sup>4</sup>. For example, in Queensland 241 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.

MW	<\$20/MWh	Between \$20 and \$50/MWh	Total availability	Change in average demand
Qld	241	75	365	-110
NSW	-223	124	-37	-502
VIC	-177	-188	-486	-371
SA	103	-133	-20	-112
TAS	49	-110	18	-58
TOTAL	-7	-232	-160	-1153

Figure 12: Changes in available generation and average demand compared to the previous
week during peak periods

#### Ancillary services market

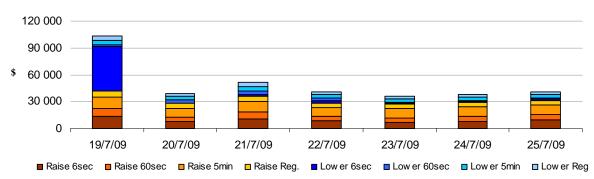
The total cost of frequency control ancillary services (FCAS) on the mainland for the week was \$236 000 or less than one per cent of turnover in the energy market.

The total cost of FCAS in Tasmania for the week was \$114 000 or nearly two per cent of turnover in the energy market.

On Sunday 19 July, the Lower 6 second service price in Tasmania increased from \$65/MW at 2 am to \$4931/MW at 2.05 am, caused by the interaction of the FCAS and Energy markets. Prices returned to previous levels in the 2.10 am dispatch interval.

Figure 13 shows the daily breakdown of cost for each FCAS for the NEM.

Figure 13: Daily frequency control ancillary service cost



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<sup>&</sup>lt;sup>4</sup> A peak period is defined as between 7 am and 10 pm on weekdays, which aligns with the SFE contract definition.

## **Detailed NEM Price**

### and Demand Trends

for Weekly Market Analysis 19 July - 25 July 2009 AUSTRALIAN ENERGY REGULATOR

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

Financial year	QLD	NSW	VIC	SA	TAS
2009-10 (\$/MWh) (YTD)	29	35	29	30	28
2008-09 (\$/MWh) (YTD)	40	45	47	50	26
Change*	-28%	-22%	-40%	-40%	8%
2008-09 (\$/MWh)	36	43	49	69	62

#### Table 2: NEM turnover

Financial year	NEM Turnover** (\$, billion)	Energy (TWh)
2009-10 (YTD)	\$0.459	15
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						Turnover
average (\$/MWh)	QLD	NSW	VIC	SA	TAS	(\$, 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)	29	35	29	30	28	0.459
Q2 2009	32	35	34	35	106	1.918
Q2 2008	38	42	47	46	61	2.251
Change*	-17%	-15%	-27%	-24%	75%	1.09%

#### Table 4: ASX energy futures contract prices at 27 July

	QLD		NSW		VIC		SA	
Q1 2010	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 20 Jul (\$/MW)	54	95	49	83	64	116	79	121
Price on 27 Jul (\$/MW)	54	94	48	79	63	116	79	121
Open interest on 27 Jul	2277	150	2081	30	1965	35	53	0
Traded in the last week (MW)	70	5	86	0	134	0	0	0
Traded since 1 Jan 09 (MW)	3541	200	3545	52	2921	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 (MTD)						
MW Priced <\$20/MWh	-714	-405	-21	168	9	-964
MW Priced \$20 to \$50/MWh	542	-36	-9	-39	206	663

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

\*\* Estimated value