# WEEKLY MARKET ANALYSIS

### 10 August – 16 August 2008

### Summary

Cold weather and increased demands saw higher average prices across the NEM compared to the previous week. Spot prices on the mainland averaged between \$47/MWh in Queensland and \$54/MWh in South Australia. The average spot price in Tasmania was \$63/MWh.

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In the financial markets there was a low volume of trade and contract prices were similar to the previous week.

#### Spot market prices

Figure 1 sets out the volume weighted average price for this week 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
Ave price for 10 August – 16 August	47	51	53	54	63
Financial year to 9 August	40	44	46	48	40
% change from previous week*	29%	25%	22%	22%	12%
% change from year to date**	-37%	-37%	-38%	-37%	-51%

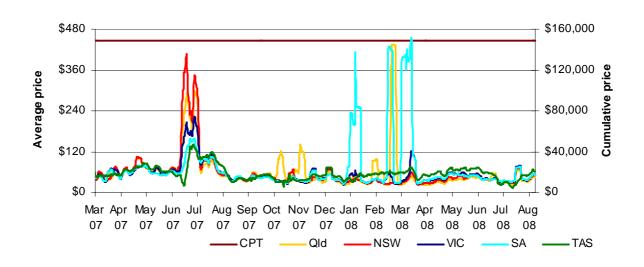
\*The percentage change between last week's average spot price and the average price for the previous week.

\*\*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 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 CPT (and the equivalent seven day time-weighted average price) for the last 18 months.

Figure 2: Seven day rolling cumulative price and CPT



# **Financial markets**

Figures 3 to 10 show futures contract<sup>1</sup> prices traded on the Sydney Futures Exchange as at close of trade on Monday 18 August. Figure 3 shows the financial year base futures contract prices for the current year, the following two years, and the three year average. Also shown are percentage changes compared to a week earlier.

	QI	_D	NS	SW	V	IC	S	5A
Financial 2008-09	50	1%	47	0%	49	0%	54	0%
Financial 2009-10	53	0%	49	0%	62	0%	54	0%
Financial 2010-11	46	0%	45	0%	54	0%	42	0%
Three year average	50	0%	47	0%	55	0%	50	0%

#### Figure 3: Base financial year futures contract prices (\$/MWh)

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

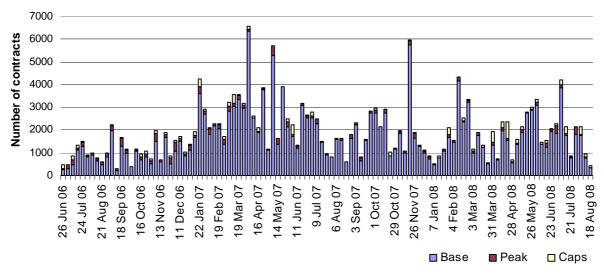
Figure 4 shows the \$300 cap contract price for the first quarter of 2009 and the 2009 calendar year and the change from the previous week.

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

	Q	LD	N	SW	V	IC	S	6A
Q1 2009 price	44	0%	23	0%	27	1%	65	0%
Calendar 2009	16	0%	11	0%	12	1%	21	-1%

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

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

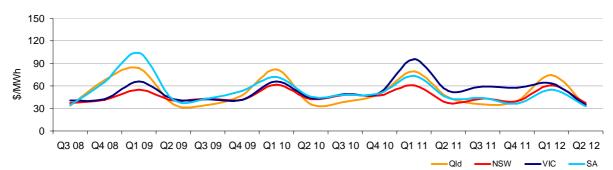
Source: d-cyphaTrade www.d-cyphatrade.com.au

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<sup>&</sup>lt;sup>1</sup> 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 years.

Figure 6: Quarterly base future prices 2008 - 2012



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

Figures 7-10 compares for each region the closing daily base contract price for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 09 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

Figure 7: Queensland Q1 2007, 2008 and 2009



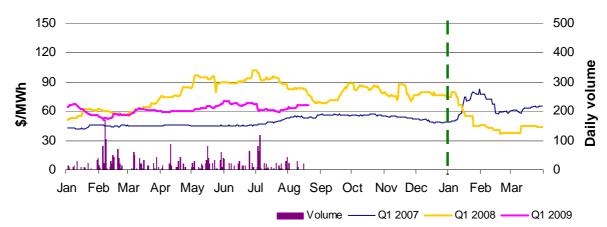
Source: d-cyphaTrade www.d-cyphatrade.com.au





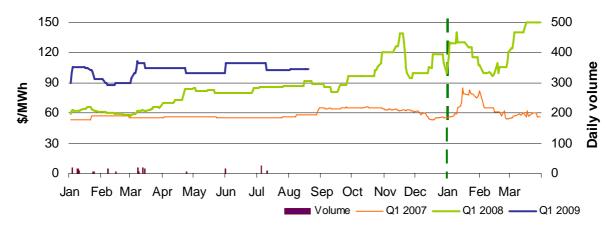
Source: d-cyphaTrade www.d-cyphatrade.com.au

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#### Figure 9: Victoria Q1 2007, 2008 and 2009

Figure 10: South Australia Q1 2007, 2008 and 2009



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

#### **Spot market forecasting variations**

The AER is required by 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 state why the AER considers that 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 113 trading intervals where actual prices significantly varied from forecasts<sup>2</sup> throughout the week. This compares to the weekly average in 2007 of 125 counts. Reasons for these variances are summarised in Figure 11<sup>3</sup>.

Figure 11:	Reasons for variations between forecast and actual price	ces
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	Availability	Demand	Network	Combination
Price is higher than forecast	2%	63%	0%	7%
Price is lower than forecast	26%	1%	0%	0%

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

<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 twelve hours ahead.

<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 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 changes to the offer price and available capacity of generation in each region for the on-peak periods only<sup>4</sup>. For example, in Queensland 71 MW less capacity was offered at prices less than \$20/MWh this week compared to the previous week. Also included is the change in average demand during peak periods for comparison.

\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	-71	-80	-196	91
New South Wales	-206	6	-408	87
Victoria	73	-31	118	267
South Australia	16	-50	-35	4
Tasmania	163	3	-72	2
Total	-26	-151	-593	451

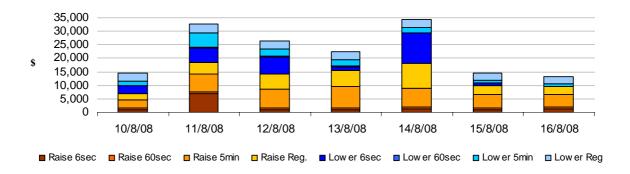
Figure 12: Changes in available generation compared to the previous week during performance of the perfor	eak times

#### **Ancillary services market**

The total cost of ancillary services on the mainland for the week was \$66,000 or less than one per cent of turnover in the energy market. The total cost of ancillary services in Tasmania for the week was \$92,000 is also less than one per cent of the turnover in the Tasmanian energy market.

Figure 13 shows the daily breakdown of cost for each frequency control ancillary service.

Figure 13: Daily frequency control ancillary service cost



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

# Appendix A:

**Detailed Market Analysis** 

10 August – 16 August 2008

**National:** There were two occasions where the spot price aligned nationally and the New South Wales price was greater than three times the New South Wales weekly average price of \$51/MWh. The New South Wales spot price has been used as a proxy national price under these conditions as New South Wales is located in the centre of the NEM.

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# Sunday, 10 August

6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	176.76	111.78	113.84
Demand (MW)	29 679	29 082	28 838
Available capacity (MW)	36 522	36 733	36 868
7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	161.66	128.24	125.59
Demand (MW)	20.115	20.216	20.002
Demand (WIW)	30 115	29 216	28 983

Conditions at the time saw demand up to 900 MW greater than that forecast four hours ahead of dispatch and 1100 MW greater than that forecast twelve hours ahead.

There was no significant rebidding.

**Queensland:** There were three occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of \$47/MWh. Two of these occurred when prices were generally aligned across all regions and are detailed in the national market outcomes section. The remaining occasion is presented below.

# Monday, 11 August

7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	143.83	231.86	137.26
Demand (MW)	7467	7271	7232
Available capacity (MW)	9634	9585	9676

Conditions at the time saw demand up to 200 MW greater than that forecast four and 12 hours ahead of dispatch. The forecast price was close to forecast.

There was no significant rebidding.

# Appendix B Detailed NEM Price and Demand Trends

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

Financial year	QLD	NSW	VIC	SA	TAS
2008-09 (\$/MWh) YTD	40	44	46	48	40
2007-08 (\$/MWh) YTD	64	71	75	77	83
Change	-38%	-37%	-39%	-38%	-52%
2007-08 (\$/MWh)	58	44	51	101	57

#### Table 2: NEM turnover

Financial year	NEM Turnover* (\$, billion)	Energy (TWh)
2008-09 YTD	\$1.3	29
2007-08	\$11.1	208
2006-07	\$12.7	206
Change (2006-07 to 2007-08)	-12%	0.8%

\* estimated value

#### Table 3: Recent monthly and quarterly spot market volume weighted average price and turnover

Volume weighted					~		Turnover
average (\$/MWh)	QLD	NSW	SNOWY	VIC	SA	TAS	(\$, billion)
Apr-08	29	34	28	41	44	56	0.60
May-08	41	47	36	56	53	68	0.87
Jun-08	43	44	28	44	42	57	0.77
Jul-08	40	44	-	46	48	31	0.82
Aug-08	40	44	-	46	47	58	0.44
Q2 2007	119	146	-	99	83	74	3.26
Q2 2008	38	42	-	47	46	61	3.36
Change	-68%	-71%	-	-52%	-44%	-18%	

# Table 4: ASX energy futures contract prices at 11 August

	QLD		NSW		VIC		SA	
Q1 2009	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 11 Aug (\$/MW)	36	46	41	57	42	59	42	62
Price on 18 Aug (\$/MW)	36	46	41	57	42	59	42	62
Open interest on 18 Aug	2244	144	2087	166	1578	444	145	0
Traded in the last week (MW)	17	0	15	0	23	5	0	0
Traded since 1 Jan 08	4266	312	4608	188	2991	635	205	0
Settled price for Q1 08(\$/MW)	68	97	32	42	43	65	152	322

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

Comparison:	QLD	NSW	SNOWY*	VIC	SA	TAS	NEM	
June 08 with June 07								
MW Priced <\$20	307	376	-25	-58	-70	-405	125	
MW Priced \$20 to \$50	302	438	299	104	44	95	1284	
July 08 with July 07								
MW Priced <\$20	486	904	-	36	46	541	2013	
MW Priced \$20 to \$50	408	-744	-	292	166	119	242	
August 08 with August 07								
MW Priced <\$20	100	902	0	-99	166	-202	867	
MW Priced \$20 to \$50	533	-934	0	264	59	55	-23	

\*For comparative purposes Snowy generation for July 2007 and 2008 has been incorporated into New South Wales and Victoria