

WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY
REGULATOR

26 October – 1 November 2008

Summary

Spot prices in Victoria, South Australia and Tasmania averaged \$48/MWh, \$40/MWh and \$62/MWh respectively – all close to those for the previous week. Average prices were higher in New South Wales and Queensland as a result of the events on 31 October, when the spot price reached \$3618/MWh in Queensland and exceeded \$5000/MWh on seven occasions in New South Wales. In accordance with clause 3.13.7 of the National Electricity Rules (NER), the AER will issue a separate report into the circumstances that led to the spot price exceeding \$5000/MWh.

In the financial markets, calendar 2009 base load contracts have increased slightly across all regions.

Spot market prices

Figure 1 sets out the volume weighted average prices for this week and the financial year to date across the National Electricity Market. 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 26 October – 1 November	70	286	48	40	62
Financial year to 1 November	38	53	42	41	45
% change from previous week*	104%	654%	17%	-4%	7%
% change from year to date**	-36%	-3%	-23%	-26%	-23%

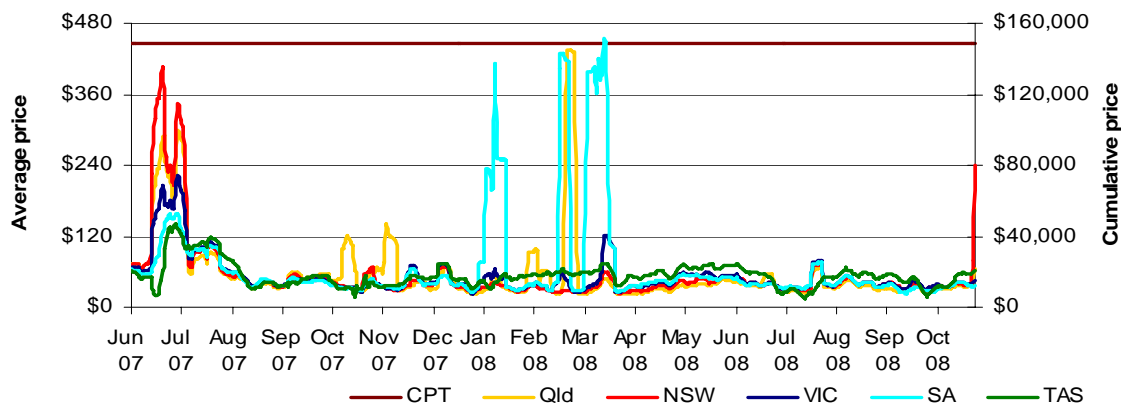
*The percentage change between last week's average spot price and the average price for the previous week.

**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 Cumulative Price Threshold (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 contract¹ prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 3 November. Figure 3 shows the financial year base futures contract prices for the next three 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	52	2%	50	2%	51	0%	55	0%
Financial 2010-11	59	0%	60	0%	63	0%	59	0%
Financial 2011-12	55	0%	50	0%	54	0%	49	0%
Three year average	55	1%	54	1%	56	0%	54	0%

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.

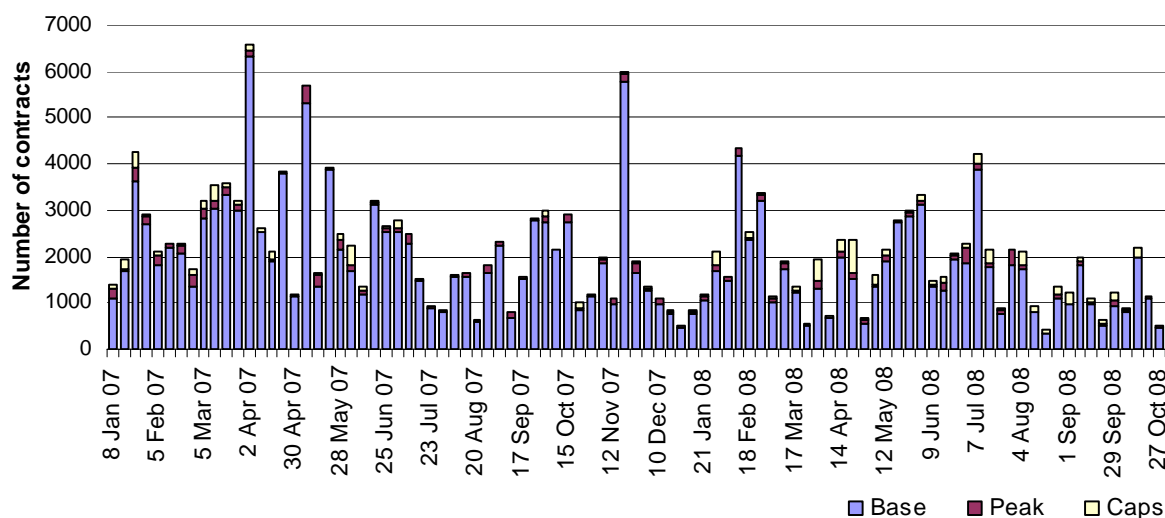
Figure 4: \$300 cap contract prices (\$/MWh)

	QLD		NSW		VIC		SA	
Q1 2009 price	45	6%	18	0%	25	1%	65	0%
Calendar 2009	18	4%	10	0%	11	-4%	21	0%

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

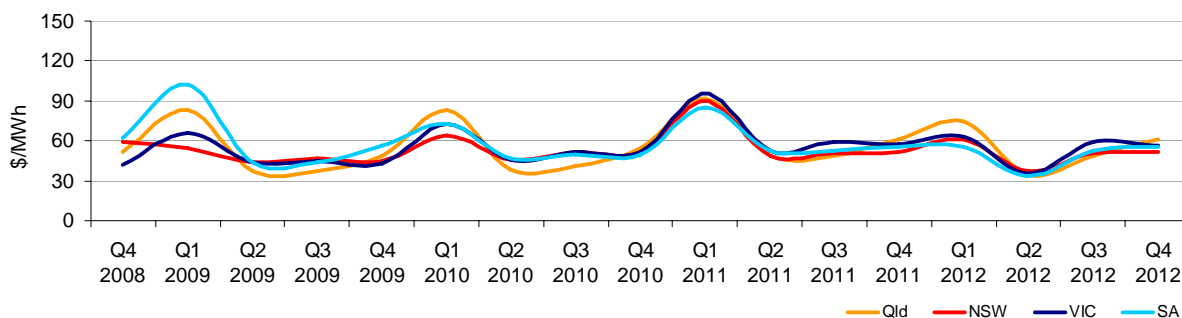


Source: d-cyphaTrade www.d-cyphatrade.com.au

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 years.

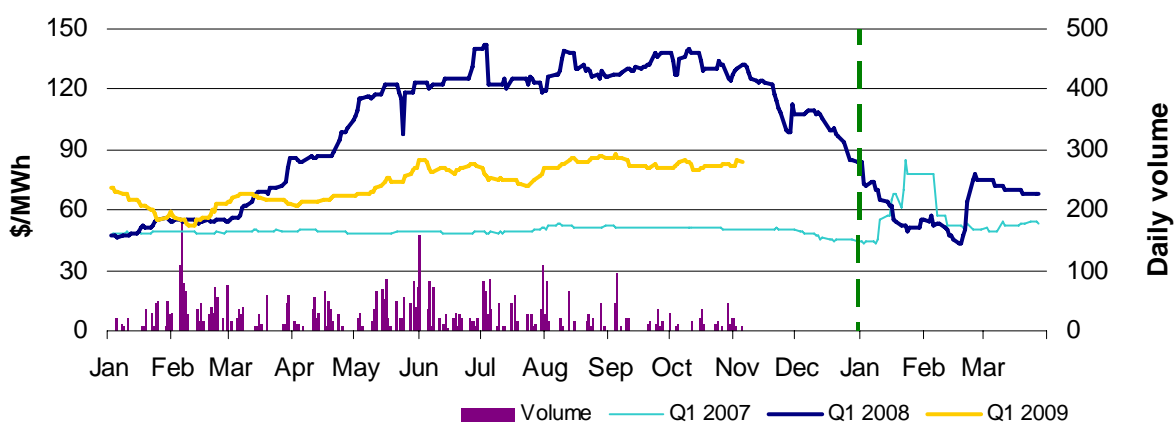
Figure 6: Quarterly base future prices 2008 - 2012



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

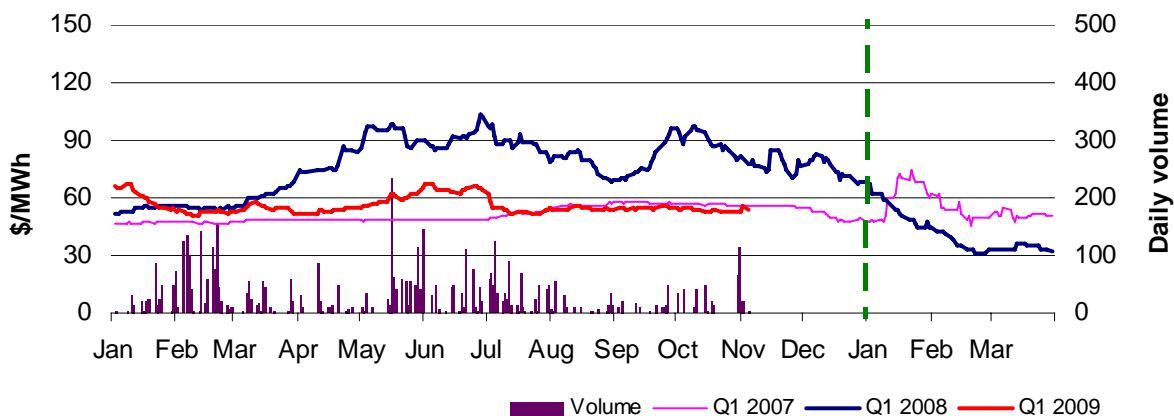
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 2009 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

Figure 7: Queensland Q1 2007, 2008 and 2009



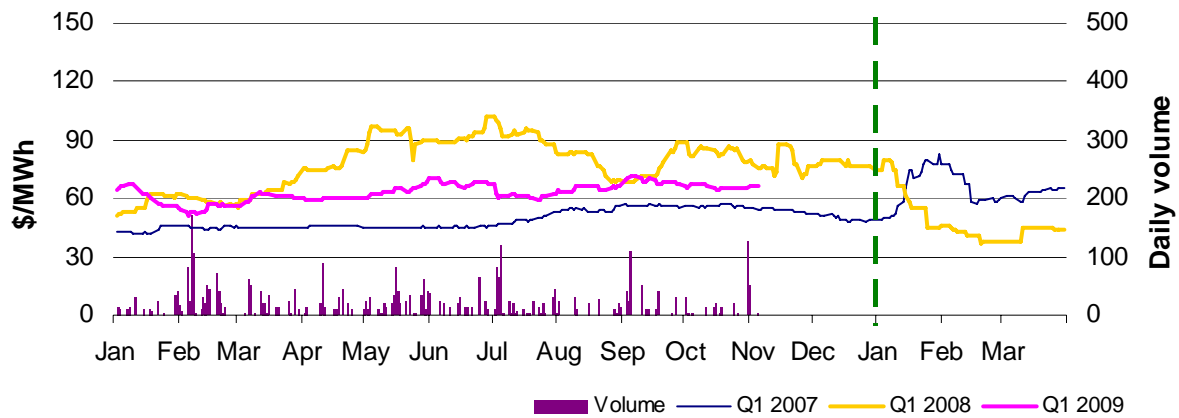
Source: d-cyphaTrade www.d-cyphatrade.com.au

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



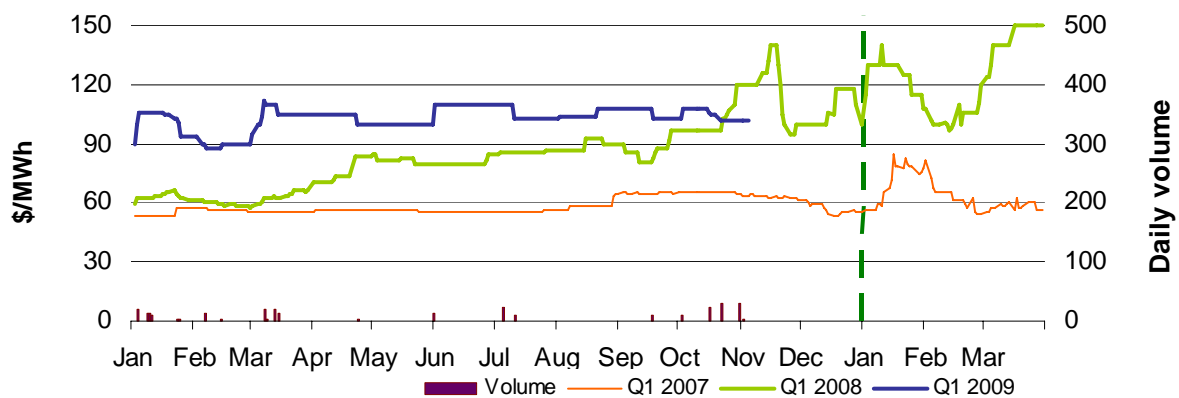
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 9: Victoria Q1 2007, 2008 and 2009



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

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 under the NER 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 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 forecasts² throughout the week. This compares to the weekly average in 2007 of 125 counts. Reasons for these variances are summarised in Figure 11³.

Figure 11: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
Price is higher than forecast	5%	39%	0%	6%
Price is lower than forecast	43%	4%	0%	3%

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 changes to the offer price and available capacity of generation in each region during peak periods⁴. For example, in Queensland 131 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 12: Changes in available generation compared to the previous week during peak times

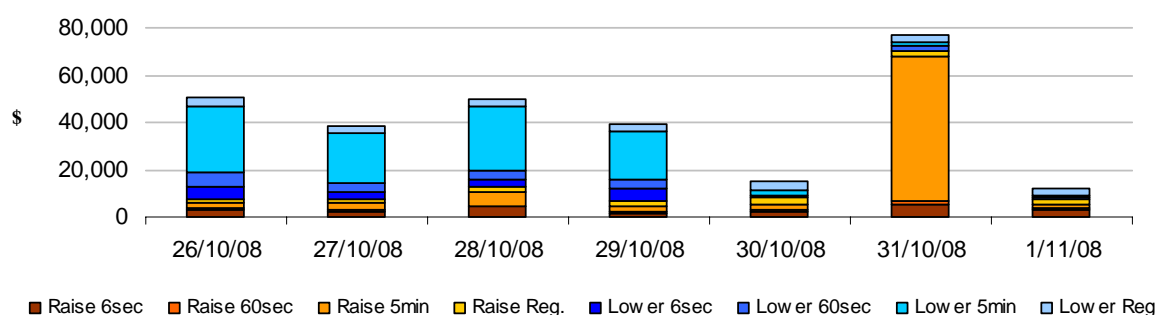
\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	131	-105	-20	221
New South Wales	-83	-272	-807	381
Victoria	47	224	-26	-42
South Australia	331	-33	429	7
Tasmania	2	0	75	-110
Total	428	-186	-349	457

Ancillary services market

The total cost of ancillary services on the mainland for the week was \$257 000 or less than one per cent of turnover in the energy market. A quarter of this cost occurred on 31 October during the period of high energy prices when the price of raise five-minute contingency services reached around \$100/MW.

The total cost of ancillary services in Tasmania for the week was \$26 000 or less than one per cent of turnover in the energy market in Tasmania. Figure 13 shows the daily breakdown of cost for each frequency control ancillary service.

Figure 13: Daily frequency control ancillary service cost



Australian Energy Regulator November 2008

⁴ 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



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Queensland: There were eight occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of \$70/MWh.

Friday, 31 October

1:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	247.23	298.00	98.74
Demand (MW)	6915	7058	7030
Available capacity (MW)	9644	9623	9487
1:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	250.78	290.80	243.47
Demand (MW)	6929	7096	7069
Available capacity (MW)	9658	9635	9517
2:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	260.23	290.80	250.78
Demand (MW)	6955	7116	7091
Available capacity (MW)	9658	9634	9557
2:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	3618.51	250.78	250.78
Demand (MW)	6957	7096	7073
Available capacity (MW)	9637	9630	9597
3:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	2316.43	250.78	250.78
Demand (MW)	6941	7051	7029
Available capacity (MW)	9531	9610	9677
3:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	292.00	110.87	80.00
Demand (MW)	6900	6956	6991
Available capacity (MW)	9543	9610	9677
4:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	265.33	56.35	55.96
Demand (MW)	6891	6910	6943
Available capacity (MW)	9665	9611	9677
4:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	233.79	43.52	55.86
Demand (MW)	6907	6863	6892
Available capacity (MW)	9565	9613	9677

Conditions at the time saw demand and available capacity close to that forecast four hours ahead. Exports from Queensland across the interconnectors into New South Wales were also close to forecast. Prices were close to that forecast until 2.30 pm.

Over two rebids at 11.08 am and 11.48 am Stanwell Corporation rebid up to 410 MW of capacity across its Gladstone units from prices below \$420/MWh to above \$9000/MWh. Those rebids applied for the 11.30 am to 1 pm trading intervals. The reasons given were “Prices materially greater than predispatch change MW distrib” and “Manage transmission constraint::change MW distrib”. Through additional rebids at 12.57 pm, 1.29 pm, 2.56 pm and 4.01 pm, Stanwell extended the earlier offers to apply for the 1.30 pm to 4.30 pm trading intervals. The reason given on each occasion was “Extend previous bid::change avail/MW distrib”.

At 2.20 pm, effective from 2.30 pm, Stanwell reduced the availability of Gladstone unit two by 135 MW, most of which was priced above \$9000/MWh. The reason given was “Condenser backflush::change availability”.

Over three rebids between 12.11 pm and 12.41 pm, CS Energy rebid 70 MW of capacity at Swanbank E from prices below zero to above \$7900/MWh. The reason given was “Manage QNI constraint”. These rebids applied for the 12.30 pm to 2 pm trading intervals.

At 2.10 pm Millmerran Energy Traders shifted 170 MW of capacity at Millmerran from prices below \$50/MWh to above \$5000/MWh. The reason given was “Change in Predispatch::Adjust MW distribution”. This rebid applied for the 3 pm to 5 pm trading intervals.

There was no other significant rebidding.

New South Wales: There were 11 occasions where the spot price in New South Wales was greater than three times the New South Wales weekly average price of \$286/MWh.

Friday, 31 October

10:00 am	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	1777.70	75.00	75.00
Demand (MW)	10 611	10 419	10 419
Available capacity (MW)	9673	10 091	10 131
10:30 am	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	1630.98	96.52	87.39
Demand (MW)	10 638	10 496	10 494
Available capacity (MW)	9728	10 091	10 091
11:30 am	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	1928.43	96.59	99.04
Demand (MW)	10 818	10 566	10 566
Available capacity (MW)	9727	10 093	10 091
12:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	6794.80	667.87	100.00
Demand (MW)	10 910	10 617	10 616
Available capacity (MW)	9724	9738	10 091
12:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	6861.91	686.19	101.60
Demand (MW)	11 004	10 691	10 688
Available capacity (MW)	9714	9708	10 091
1:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	10 000.00	693.18	102.52
Demand (MW)	11 071	10 733	10 732
Available capacity (MW)	9715	9668	10 091

1:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	10 000.00	656.50	254.21
Demand (MW)	11 146	10 808	10 808
Available capacity (MW)	9722	9698	10 091
2:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	2177.46	687.72	263.76
Demand (MW)	11 013	10 932	10 862
Available capacity (MW)	9706	9728	10 091
2:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	6787.37	694.47	266.98
Demand (MW)	10 993	10 988	10 918
Available capacity (MW)	9735	9778	10 091
3:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	10 000.00	685.95	303.25
Demand (MW)	11 146	11 043	10 976
Available capacity (MW)	9763	9778	10 091
3:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	5408.77	969.05	323.21
Demand (MW)	11 214	11 108	10 994
Available capacity (MW)	9743	9778	10 091

Conditions at the time saw higher than forecast demand driven by high temperatures in Sydney. Around 4000 MW of generation capacity was unavailable on the day. During the morning, Delta Electricity shutdown Wallerawang unit eight as a result of a steam tube leak. This reduced available capacity by 350 MW, all of which was priced below zero. Import capability in New South Wales was around 500 MW lower than forecast – across the QNI, Directlink and the Victoria to New South Wales interconnectors combined. The reduced supply and high demand led to low reserves and high prices during the period.

In accordance with clause 3.13.7 of the NER, the AER will issue a separate report into the circumstances that led to the spot price exceeding \$5000/MWh.

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	38	53	42	41	45
2007-08 (\$/MWh) YTD	59	55	55	55	58
Change	-36%	-4%	-23%	-26%	-23%
2007-08 (\$/MWh)	58	44	51	101	57

Table 2: NEM turnover

Financial year	NEM Turnover* (\$, billion)	Energy (TWh)
2008-09 YTD	\$3.3	72
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 average (\$/MWh)	QLD	NSW	SNOWY	VIC	SA	TAS	Turnover (\$, billion)
Jun-08	43	44	28	44	42	57	0.77
Jul-08	40	44	-	46	48	31	0.82
Aug-08	37	42	-	42	44	56	0.79
Sep-08	32	37	-	38	34	46	0.61
Oct-08 MTD	43	94	-	41	37	47	1.05
Q3 2007	56	59	-	60	62	65	3.17
Q3 2008	36	41	-	42	42	44	2.23
Change	-35%	-31%	-	-30%	-31%	-32%	

Table 4: ASX energy futures contract prices at 3 November

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2009								
Price on 27 Oct (\$/MW)	83	147	53	89	66	117	102	197
Price on 03 Nov (\$/MW)	84	150	54	89	66	117	102	197
Open interest on 03 Nov	2471	157	2499	171	1937	449	185	0
Traded in the last week (MW)	63	5	227	0	180	0	35	0
Traded since 1 Jan 08	4922	394	5299	215	3713	687	315	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
August 08 with August 07							
MW Priced <\$20	138	668	-	116	168	-248	841
MW Priced \$20 to \$50	511	-844	-	275	79	51	72
September 08 with September 07							
MW Priced <\$20	913	717	-	-84	137	147	1829
MW Priced \$20 to \$50	189	-401	-	186	187	37	199
October 08 with October 07							
MW Priced <\$20	248	-230	-	-138	112	-356	-364
MW Priced \$20 to \$50	357	-325	-	150	45	-36	191

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