

WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY
REGULATOR

3 February – 9 February 2008

Summary

Spot prices for the week were generally lower than average for this time of the year, averaging between \$30/MWh in New South Wales and \$55/MWh in Tasmania. In Queensland prices averaged \$69/MWh, driven by a number of short term events with the spot price reaching \$6622/MWh in Queensland on Thursday afternoon at 4.30 pm. In accordance with the requirements of the National Electricity Rules, the AER will be issuing a report into the circumstances that led to the spot price exceeding \$5000/MWh. Demand across the National Electricity Market (NEM) remained moderate during the week.¹

Exchange traded contract prices fell across the board compared to the previous week, to pre-drought levels. Volumes for the week were the fourth largest ever.

Spot market prices

Figure 1 sets out the volume weighted average price for this week and this financial year to date across the NEM regions and compares them 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 3 – 9 February	69	30	39	40	55
Financial year to date	56	48	51	72	54
% change from previous week*	-33%	-23%	-	-1%	-
% change from year to date**	62%	25%	12%	48%	35%

*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. In addition, a report is prepared if the spot price exceeds \$5000/MWh.

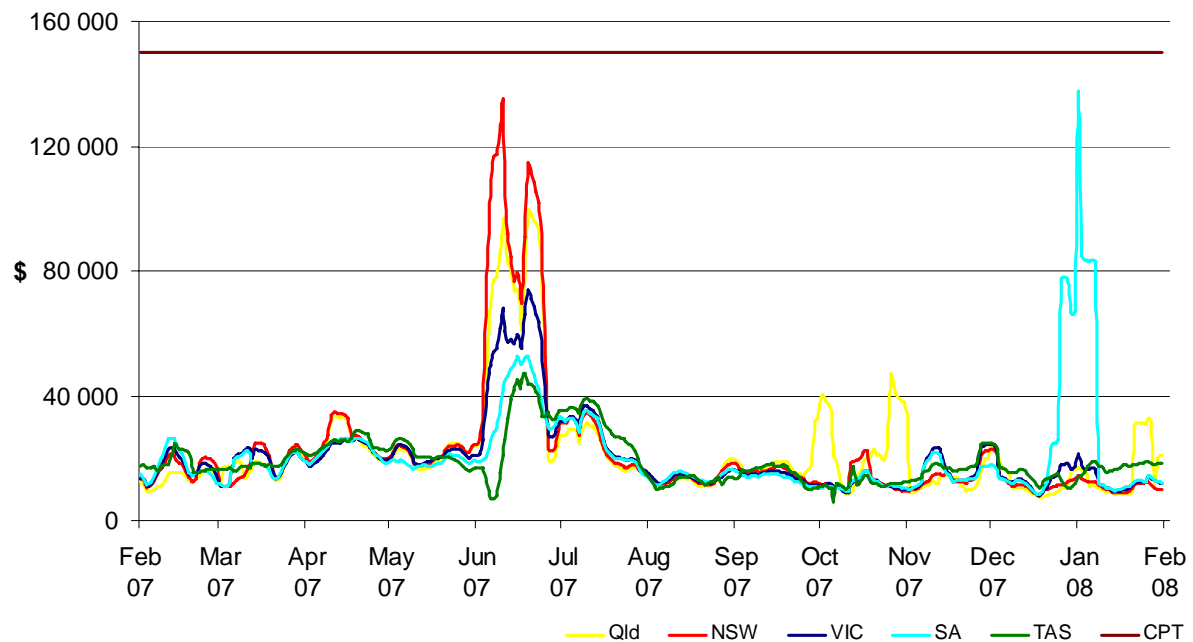
Three regions recorded prices greater than three times the weekly average. Queensland exceeded three times the weekly average on six occasions while South Australia and Victoria had two instances each. Details of these events are attached in the Appendix A. Longer term market trends are attached in Appendix B.

Figure 2 shows the seven day rolling cumulative price for each region together with the CPT².

¹ Long term statistics are available at <http://www.aer.gov.au>

² The CPT or Cumulative Price Threshold is the trigger for the commencement of administered pricing and occurs when the rolling sum of spot prices exceeds \$150 000.

Figure 2: 7 day rolling cumulative price and CPT



Financial market

Figures 3 to 10 show futures contract³ prices traded on the Sydney Futures Exchange as at close of trade on Monday. Figure 3 shows the calendar base futures contract prices for this year and the next two years, and the three year average. Also shown are percentage changes compared to a week earlier.

Figure 3: Base calendar futures contract prices (\$/MWh)

	QLD		NSW		VIC		SA	
Calendar 2008	42	-7%	42	-12%	43	-8%	64	-12%
Calendar 2009	39	-9%	45	-6%	42	-7%	55	-8%
Calendar 2010	43	-3%	51	-5%	49	-4%	50	-0%
Three year average	41	-7%	46	-7%	45	-6%	56	-7%

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

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

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

	QLD		NSW		VIC		SA	
Q1 2008 price	13	0%	7	-7%	6	-29%	56	0%
Calendar 2008	8	0%	7	-2%	6	-7%	18	0%

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

Figure 5 shows the weekly trading volumes for base, peak and cap contracts. The week ending 11 February recorded the fourth highest weekly volume ever.

³ 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 7am to 10pm Monday to Friday (excluding Public holidays) over the duration of the contract quarter.

Figure 5: Number of exchange traded contracts per week

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

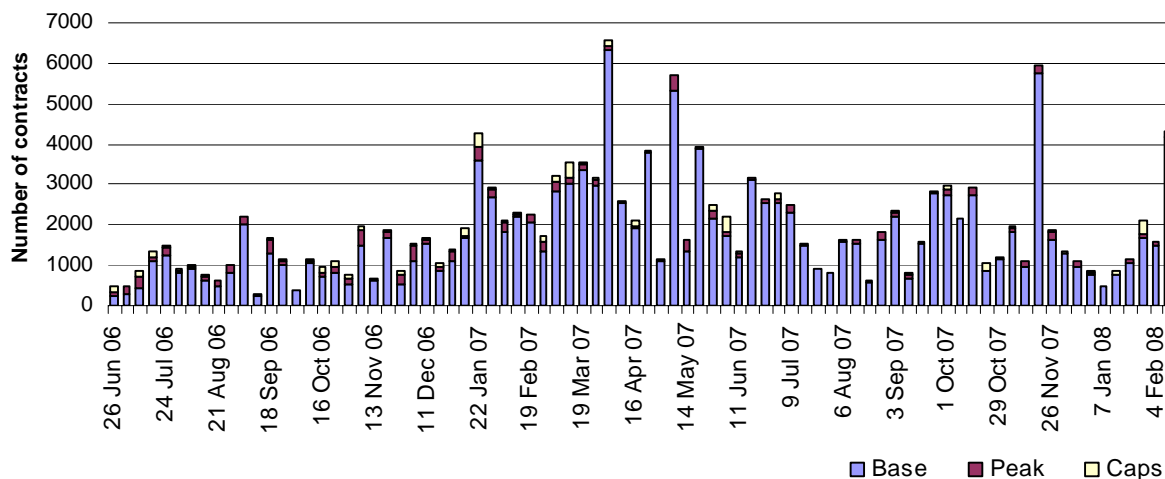
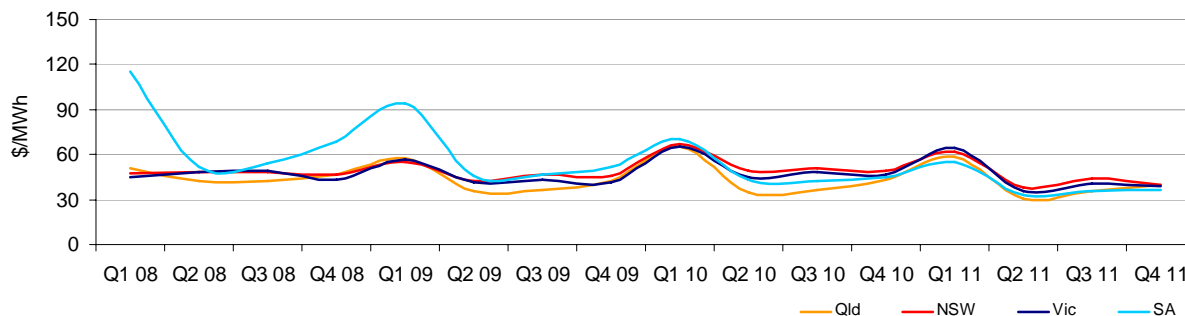


Figure 6 shows the prices for base contracts for each quarter for the next three years.

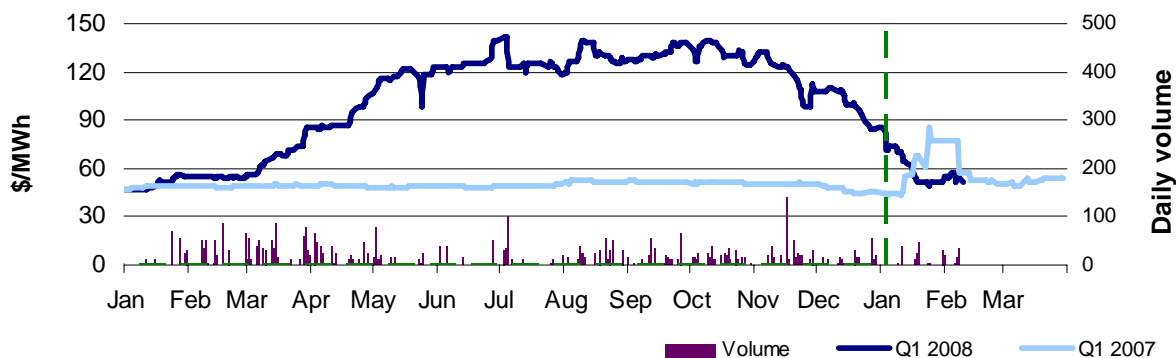
Figure 6: quarterly base future prices 2008 - 2011



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

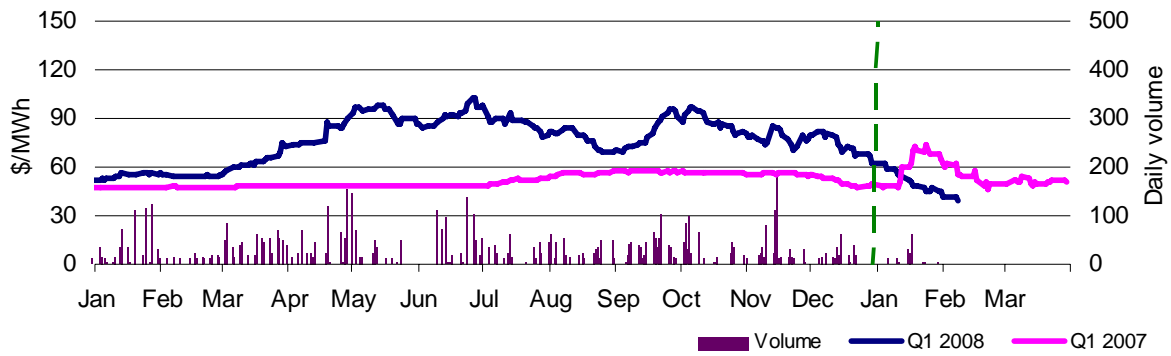
Figure 7-10 compares for each region the closing daily base contract price for the first quarter of 2007 against 2008 and also shows the daily volume of Q1 08 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

Figure 7: Queensland



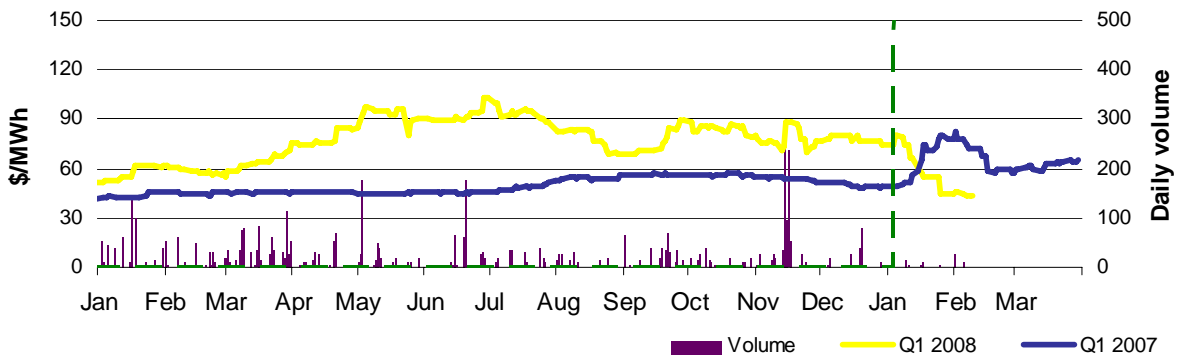
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 8: New South Wales



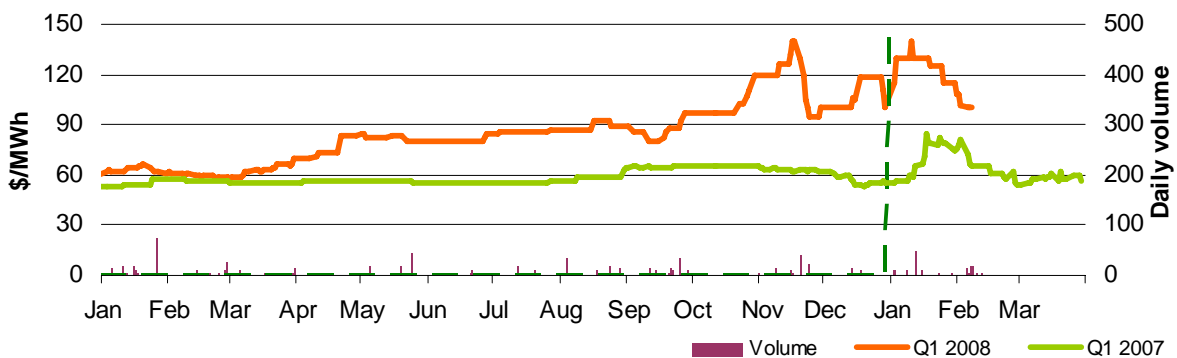
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 9: Victoria



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

Figure 10: South Australia



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. For the week 3 to 9 February, there were 94 trading intervals where actual prices significantly varied from forecasts. Reasons for these variances are summarised in Figure 11.

Figure 11: reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
Price is higher than forecast	9%	14%	0	5%
Price is lower than forecast	1%	67%	0	3%

Demand and bidding patterns

The AER reviews demand, network limitations and generator bidding as part of our 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 only⁴. For example, in Queensland 147 MW less 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.

Figure 12: Changes in available generation compared to the previous week during peak times

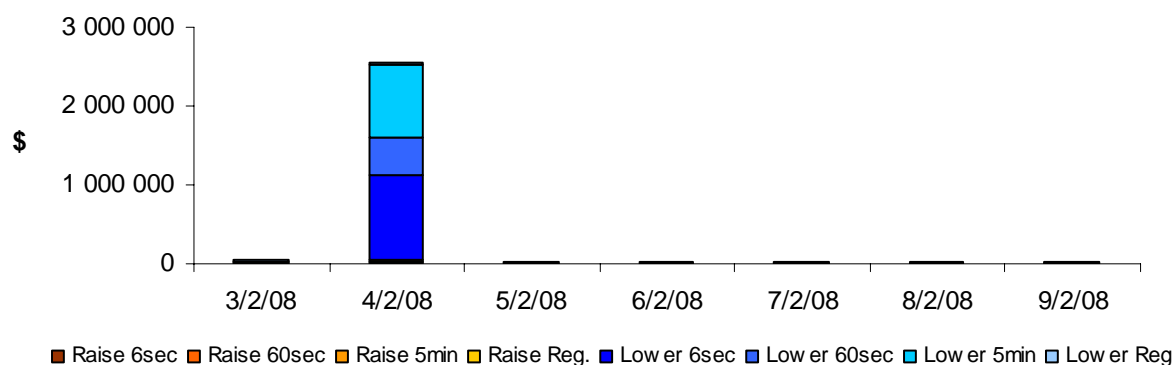
\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	-147	125	-316	113
New South Wales	-115	132	41	-891
Victoria	-101	14	-93	188
South Australia	32	4	59	-178
Tasmania	15	45	60	-13
Snowy	16	423	-222	-5
Total	-300	743	-470	-787

Ancillary services market

The total cost of ancillary services on the mainland for the week was \$2.7 million or 1.5 per cent of turnover in the energy market, which is significantly greater than normal as a result of one event. The total cost of ancillary services in Tasmania for the week was \$65 000 or 0.7 per cent of the turnover in the Tasmanian energy market. Figure 13 shows the daily breakdown of cost for each frequency control ancillary service.

At 6.50 pm on Monday, the loss of the double circuit Braemar to Tarong lines was reclassified as a credible contingency. As a result there was a 370 MW step change in flows across QNI at 6.55 pm and a requirement for local lower services in Queensland. The price for those services reached \$10 000/MWh for three dispatch intervals for a total cost of around \$2 million.

Figure 13: daily frequency control ancillary service cost



Australian Energy Regulator February 2008

⁴ Peak periods is defined as between trading intervals ending 7.30 am and 10 pm on weekdays, which aligns with the SFE contract definition.

DETAILED MARKET ANALYSIS

APPENDIX A



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REGULATOR

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Queensland: There were six occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of \$69/MWh.

Monday, 4 February

7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	1689.02	27.89	30.05
Demand (MW)	7130	7071	7237
Available capacity (MW)	10 706	10 659	10 863

Conditions at the time saw demand and available capacity close to that forecast four hours ahead.

At 6.55 pm the Braemar to Tarong lines were reclassified as a credible contingency due to lightning and a constraint was invoked to manage it. Flows into New South Wales increased from 300 MW at 6.50 pm to forced flows counter-price of 675 MW at 6.55 pm. At 6.55 pm the constraint was violated and the five-minute price reached \$10 000/MWh. Cheaper generation north of Tarong ramped up output by around 320 MW in the next 5 minutes reducing prices back to previous levels at 7 pm.

There was no significant rebidding.

Thursday, 7 February

2:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	232.84	36.72	33.93
Demand (MW)	7727	7542	7720
Available capacity (MW)	10 023	10 139	10 974
3:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	1094.11	47.64	33.96
Demand (MW)	7730	7579	7731
Available capacity (MW)	9887	10 129	10 974
3:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	896.88	54.49	34.19
Demand (MW)	7662	7614	7774
Available capacity (MW)	9945	10 121	10 974
4:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	6622.24	36.61	31.92
Demand (MW)	7596	7636	7734
Available capacity (MW)	10 012	10 150	10 996

Conditions at the time saw demand up to 185 MW higher than forecast four hours ahead. Available capacity was up to 240 MW lower than forecast four hours ahead and 1000 MW lower than forecast twelve hours ahead.

Over two rebids at 8.04 am and 8.58 am CS Energy reduced the availability of Kogan Creek by 730 MW to zero due to wet coal issues. All of this capacity as priced below \$10/MWh.

Over a number of rebids from 9.02 am Stanwell Corporation shifted 500 MW of capacity across its portfolio from prices below \$55/MWh to above \$400/MWh, with 260 MW of this priced to above \$9000/MWh. The reasons given included “Portfolio optimisation::change MW distrib”, “Rearrange/rebalance portfolio::change avail/MW distrib” and “Extend previous bid::change avail/MW distrib”.

At 10.20 am Callide Power Trading rebid 102 MW of capacity at Callide unit three from prices below \$20/MWh to above \$6700/MWh. The reason given was “Optimisation decision::change MW dist”.

At 12.30 pm Millmerran Energy Trader rebid 250 MW of capacity from prices below \$80/MWh to above \$230/MWh. The reason given was “Change PD::Adj MW distribution”.

The price for the 4.30 pm trading interval exceeded \$5000/MWh when the loss of the double circuit Calvale to Tarong was reclassified as a credible contingency. The AER will be issuing a report into the circumstances of the day in accordance with clause 3.13.7 of the Rules.

There was no other significant rebidding.

Friday, 8 February

5:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	858.74	33.37	34.65
Demand (MW)	7484	7563	7563
Available capacity (MW)	10 019	10 029	10 177

Conditions at the time saw demand and available capacity close to that forecast four and twelve hours ahead.

At 4.55 pm an unplanned outage of the Millmerran to Middle Ridge line occurred which saw a 360 MW step change in flows across QNI. Flows changed from imports into Queensland of 246 MW to exports to New South Wales at 118 MW by 5 pm. The 5-minute price reached \$4995/MWh before returning to previous levels at 5.05 pm when the flow across QNI was returned into Queensland at 123 MW.

There was no significant rebidding.

Victoria and South Australia: There were two occasions where the spot price in Victoria and South Australia was greater than three times the weekly average price of \$39/MWh and \$40/MWh respectively.

Victoria, Monday, 4 February

2:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	1469.09	63.48	70.52
Demand (MW)	8359	7913	7715
Available capacity (MW)	8284	8373	8478
3:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	116.47	82.77	61.44
Demand (MW)	8541	7975	7730
Available capacity (MW)	8423	8413	8473

South Australia, Monday, 4 February

2:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	1543.57	69.72	67.53
Demand (MW)	2275	2532	2111
Available capacity (MW)	2708	2873	2977
3:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	130.81	1000.00	59.39
Demand (MW)	2287	2410	2101
Available capacity (MW)	2716	2903	2956

Conditions at the time saw demand up to 570 MW higher and available capacity close to that forecast four hours ahead in Victoria. Demand in South Australia was 250 MW lower and available capacity was 190 MW lower than that forecast four hours ahead.

At around 9.30 am the demand forecast for SA was increased by around 400 MW to above 2500 MW.

At 10.55 am AGL rebid 620 MW of capacity at Torrens Island from prices below \$75/MWh to above \$8000/MWh. The reason given was “Predispatch demand change::increased demand”. Over two rebids at 11.01 am and 12.51 pm AGL reduced the capacity of Torrens Island B one by 200 MW. The reasons given were “Plant commissioning:delayed run due to plant issues” and “Plant limitations:start delayed due to plant issues”.

At 1.45 pm International Power rebid 203 MW of capacity at Loy Yang Unit two from prices below \$15/MWh to above \$8900/MWh. The reason given was “Vic demand tracking significantly higher than PD”.

There was no other significant rebidding.

APPENDIX B: Detailed NEM Price and Demand Trends at 11 February

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

Financial year	QLD	NSW	SNOWY	VIC	SA	TAS
2007-08 (\$/MWh) YTD	55	48	32	51	72	54
2006-07 (\$/MWh) YTD	34	38	26	45	49	41
Change (YTD)	61%	25%	24%	12%	47%	34%
2006-07 (\$/MWh)	57	67	38	61	59	51

Table 2: NEM turnover

Financial year	NEM TURNOVER* (\$, billion)	ENERGY (TWh)
2007-08 YTD	\$6.7	129
2006-07	\$12.7	206
2005-06	\$7.9	201
Change (2005-06 to 2006-07)	61%	2.7%

* 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)
Oct-07	68	43	27	37	36	36	0.80
Nov-07	58	38	29	46	47	45	0.77
Dec-07	41	43	32	50	54	52	0.78
Jan-08	52	36	28	45	186	48	0.94
Feb-08	53	30	23	36	37	56	0.25
Q4 2006	23	27	22	29	40	37	1.40
Q4 2007	56	41	30	44	46	44	2.35
Change	142%	51%	37%	52%	15%	20%	

Table 4: ASX energy futures contract prices (and compared with settled price for Q1 2007)

Q1 2008	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 04 Feb (\$/MW)	54	105	42	74	46	74	102	215
Price on 11 Feb (\$/MW)	51	90	40	66	43	69	100	200
% increase since 1 March	-7%	-8%	-27%	-30%	-23%	-31%	76%	98%
Contracts traded in the last week (MW)	66	3	0	0	0	0	50	0
Contracts traded since 1 March	3527	383	5692	382	3923	631	683	132
Settled price for Q1 07 (\$/MW)	53	85	51	74	65	109	56	88

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

Comparison:							
December 07 with December 06	QLD	NSW	SNOWY	VIC	SA	TAS	NEM
MW Priced <\$20	-575	-1,685	25	-807	182	-41	-2,901
MW Priced \$20 to \$50	-58	1,741	-519	134	-127	-175	996
January 08 with January 07	QLD	NSW	SNOWY	VIC	SA	TAS	NEM
MW Priced <\$20	-8	-409	22	-83	84	13	-381
MW Priced \$20 to \$50	79	989	-260	116	-178	1	747
February 08 with February 07	QLD	NSW	SNOWY	VIC	SA	TAS	NEM
MW Priced <\$20	-280	-686	8	-281	-55	-112	-1,406
MW Priced \$20 to \$50	384	1,117	158	-21	-41	-46	1,551