

# WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY  
REGULATOR

25 – 31 January 2009

## Summary

The spot price exceeded \$5000/MWh for 12 trading intervals over Wednesday and Thursday in Victoria and in South Australia. This resulted in the application of the administered price cap to both regions from Thursday. The average spot price in South Australia and Victoria reached \$693/MWh and \$619/MWh respectively. In accordance with the requirements of the National Electricity Rules (NER), the AER will be issuing reports into the circumstances that led to the spot price exceeding \$5000/MWh.

The spot price in Tasmania exceeded \$5000/MWh for a total of three trading intervals on Thursday and Friday, resulting in an average spot price of \$194/MWh. The prices for frequency control ancillary services (FCAS) in Tasmania also exceeded \$5000/MWh. In accordance with the requirements of the NER, the AER will be issuing reports into the circumstances that led to the energy and FCAS prices exceeding \$5000/MWh.

On Thursday and Friday unplanned outages of the Basslink interconnector occurred. Record levels of demand combined with the reduced import capability resulted in interruptions to customer load in Victoria and South Australia. Directions were issued to generators in South Australia and Victoria to assist with power system security management.

On Thursday record National Electricity Market (NEM) demand of 35 550 MW led to high prices in all mainland regions. The average spot prices for Queensland and New South Wales were \$53/MWh and \$68/MWh respectively.

## Spot market prices

Figure 1 sets out the volume weighted average prices for 25 to 31 January 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 25 – 31 January	53	68	619	693	194
Financial year to 31 January	39	47	60	90	49
% change from previous week*	18%	50%	1276%	136%	225%
% change from year to date**	-30%	-3%	17%	23%	-9%

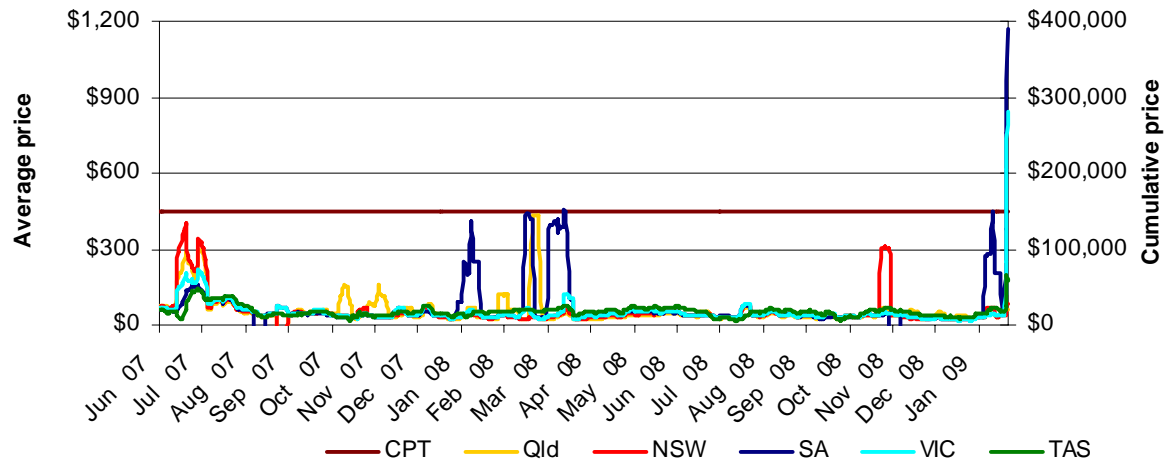
\*The percentage change between last week's average spot price and the average price for the previous week.

\*\*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 uncapped<sup>1</sup> rolling cumulative price for each region together with the Cumulative Price Threshold (CPT) (and the equivalent uncapped seven day time-weighted average price). The figure shows when the CPT was violated in South Australia and Victoria, resulting in the application of the administered price cap to both regions.

**Figure 2: Seven day rolling cumulative price and CPT**



### Financial markets

Figures 3 to 10 show futures contract<sup>2</sup> prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 2 February. Figure 3 shows the base futures contract prices for the next three financial 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*	47	3%	49	4%	53	10%	63	10%
Financial 2010-11*	60	5%	61	1%	65	4%	62	0%
Financial 2011-12*	63	1%	63	0%	67	2%	65	0%
Three year average	57	3%	58	2%	62	5%	63	3%

Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

\* There was no trades

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	30	13%*	17	0%*	39	78%	85	6%*
Calendar 2009	13	11%*	10	0%*	14	42%*	25	5%*

Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

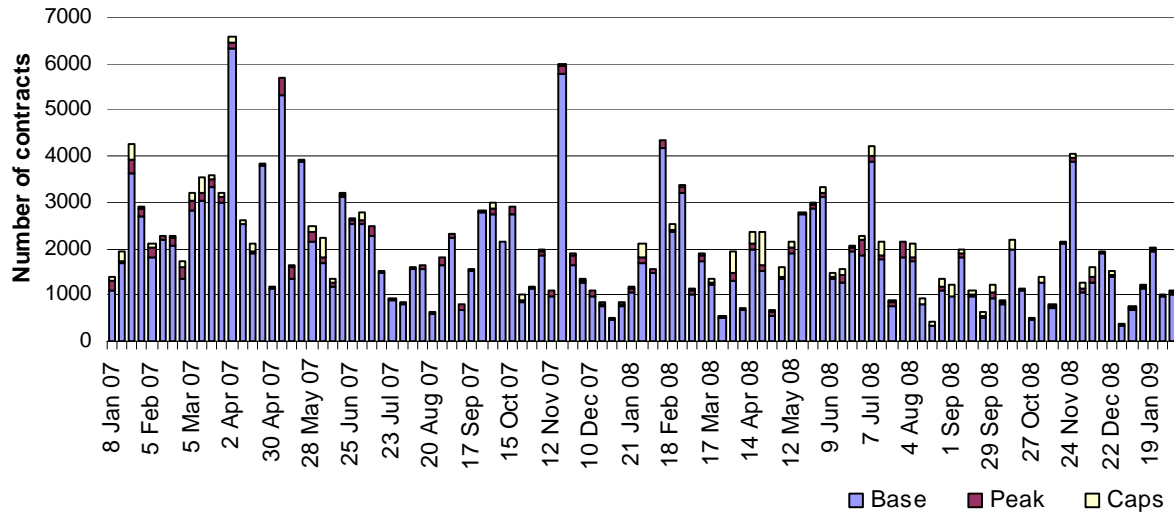
\* There were no trades.

<sup>1</sup> The uncapped price is used to determine the seven day cumulative price during an administered pricing period.

<sup>2</sup> Futures contracts on the SFE are listed by d-cyphaTrade ([www.d-cyphatrade.com.au](http://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 5 shows the weekly trading volumes for base, peak and cap contracts. The date represents the end of the trading week.

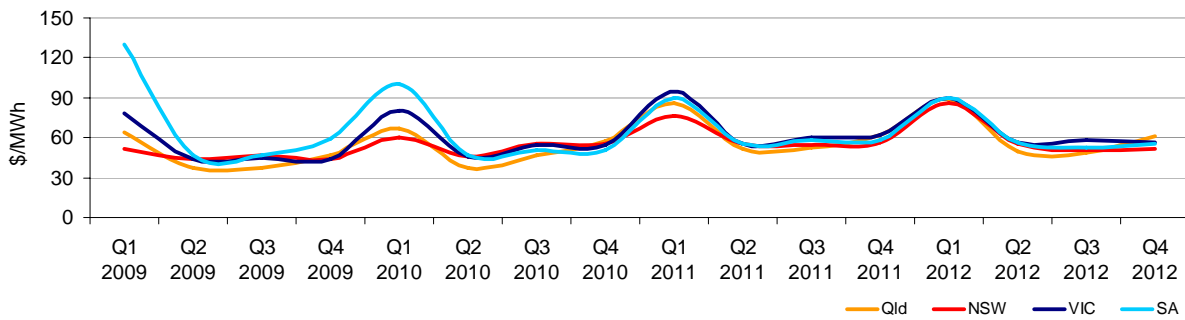
**Figure 5: Number of exchange traded contracts per week**



Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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

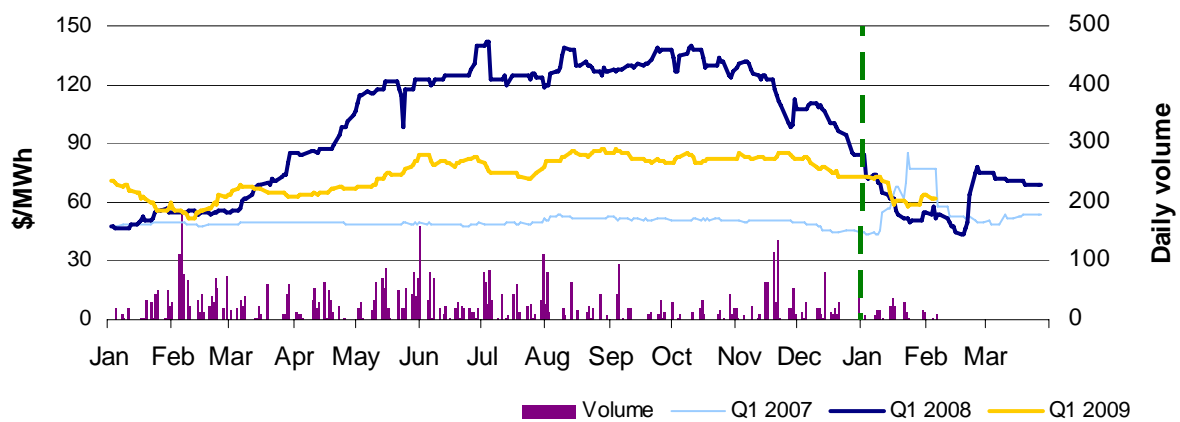
**Figure 6: Quarterly base future prices 2009 - 2012**



Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

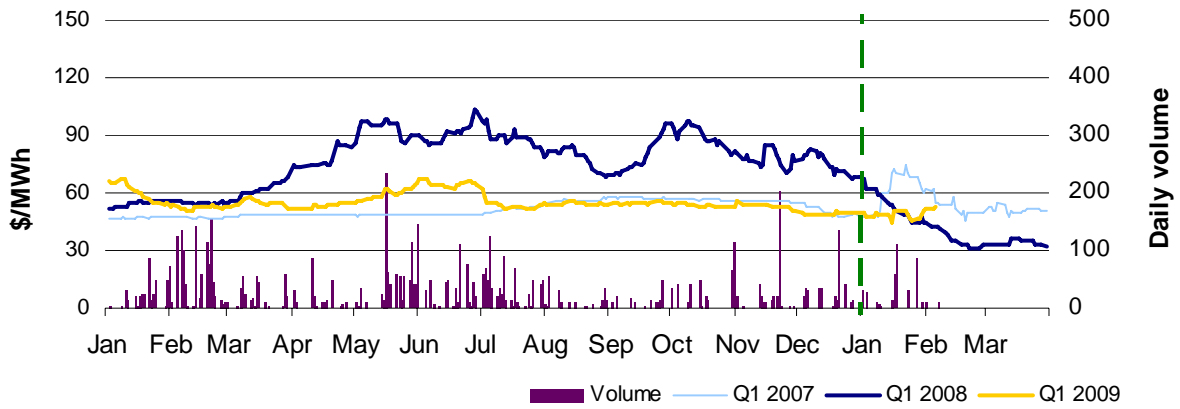
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 2009 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

**Figure 7: Queensland Q1 2007, 2008 and 2009**



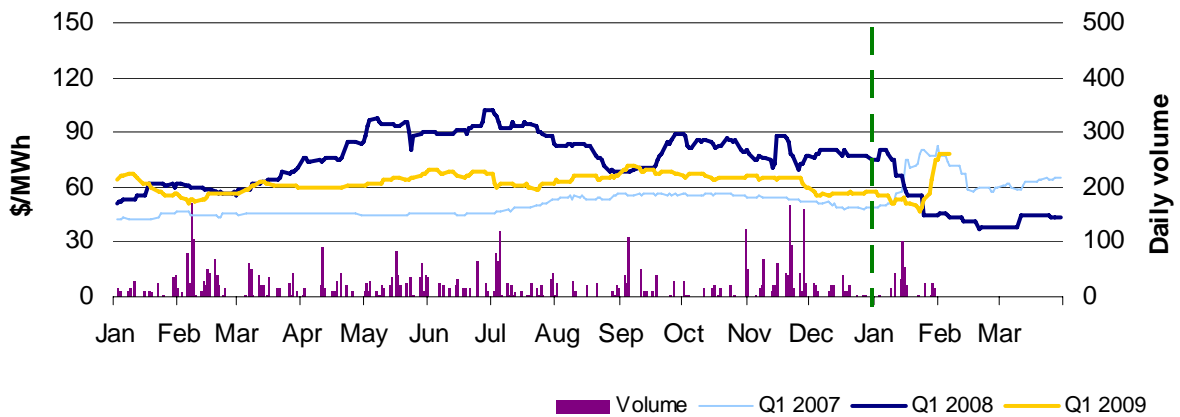
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



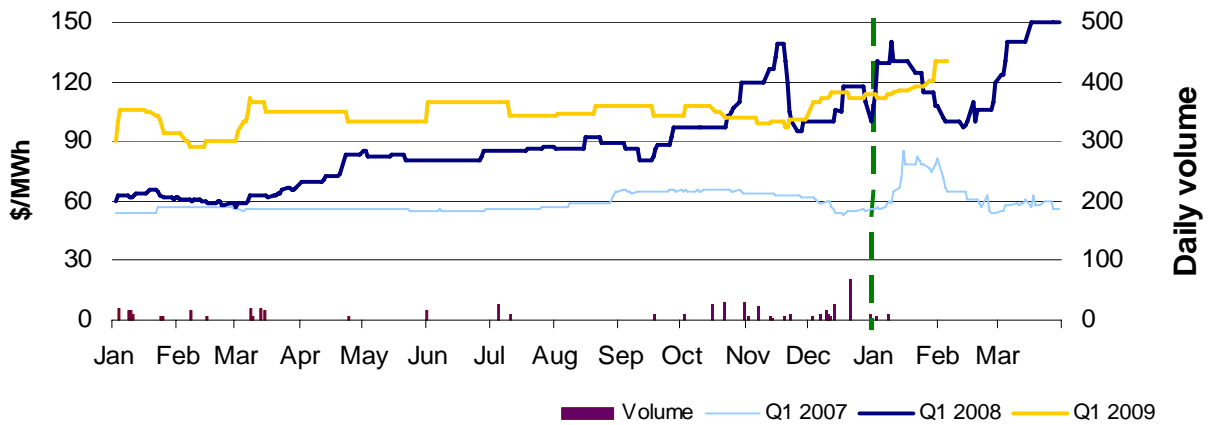
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

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



Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://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 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 229 trading intervals where actual prices significantly varied from forecasts<sup>3</sup> throughout the week. This compares to the weekly average in 2008 of 130 counts. Reasons for these variances are summarised in Figure 11<sup>4</sup>.

**Figure 11: Reasons for variations between forecast and actual prices**

	Availability	Demand	Network	Combination
% of total above forecast	4%	46%	1%	3%
% of total below forecast	24%	16%	3%	3%

## 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 peak periods only<sup>5</sup>. For example, in Queensland 659 MW less 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 and average demand compared to the previous week during peak times**

\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	-659	156	-352	-311
New South Wales	-77	-258	37	-474
Victoria	666	-574	-236	925
South Australia	206	-65	321	726
Tasmania	420	19	140	15
Total	556	-722	-90	881

<sup>3</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>4</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.

<sup>5</sup> Peak period is defined as between 7 am and 10 pm on weekdays, which aligns with the SFE contract definition.

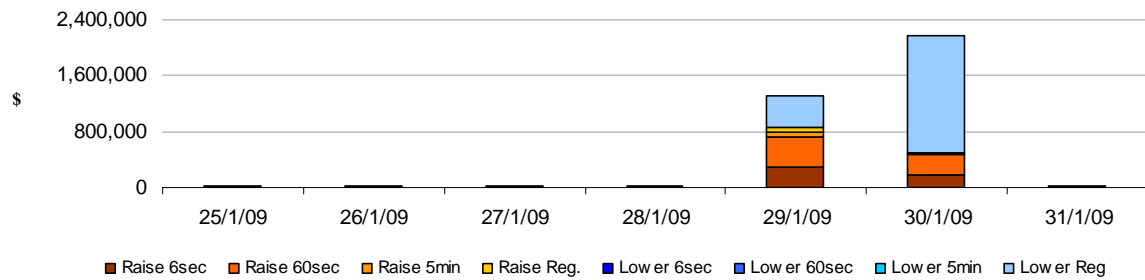
## Ancillary services market

The total cost of FCAS on the mainland for the week was \$114 000 or less than one per cent of turnover in the energy market.

The total cost of ancillary services in Tasmania for the week was \$3.6 million or 10 per cent of turnover in the energy market in Tasmania. The prices for raise 60 seconds exceeded \$5000/MWh on Thursday 29 January and Lower regulation services exceeded \$5000/MWh on Friday 30 January. In accordance with the requirements of the NER, the AER will be issuing a report into the circumstances that led to the FCAS prices exceeding \$5000/MWh.

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

**Figure 13: Daily frequency control ancillary service cost**



**Australian Energy Regulator  
February 2009**

## Detailed Market Analysis

AUSTRALIAN ENERGY  
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25 – 31 January 2009

**Queensland:** There were 13 occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of \$53/MWh.

**Wednesday, 28 January**

<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	222.63	145.34	146.22
Demand (MW)	7537	7617	7579
Available capacity (MW)	10 169	10 165	10 210
<b>4:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	237.60	152.68	152.68
Demand (MW)	7554	7612	7553
Available capacity (MW)	10 171	10 166	10 210

Conditions at the time saw demand and available capacity close to that forecast. As a result of record or near record demand in New South Wales, Victoria and South Australia, exports across the QNI interconnector into New South Wales reached 850 MW, around 300 MW greater than that forecast four hours ahead.

There was no significant rebidding.

**Thursday, 29 January**

<b>2:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	221.75	256.98	291.01
Demand (MW)	7519	7757	7757
Available capacity (MW)	9854	9950	9968
<b>2:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	253.99	287.19	671.98
Demand (MW)	7503	7745	7767
Available capacity (MW)	9847	9948	9968
<b>3:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	274.85	287.99	290.80
Demand (MW)	7445	7722	7742
Available capacity (MW)	9848	9948	9968
<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	279.92	290.80	296.79
Demand (MW)	7414	7711	7732
Available capacity (MW)	9848	9908	9968
<b>4:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1134.99	296.79	676.07
Demand (MW)	7462	7719	7741
Available capacity (MW)	9864	9910	9968
<b>4:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	267.46	2592.27	286.28
Demand (MW)	7442	7716	7735
Available capacity (MW)	9849	9904	9969
<b>5:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	248.20	243.46	240.04
Demand (MW)	7438	7653	7676
Available capacity (MW)	9886	9906	9971

Conditions at the time saw demand up to 270 MW less than that forecast four hours ahead and available capacity close to that forecast. Prices were lower or close to forecast except for the 4 pm and trading interval.

At 3.33 pm, effective 3.40 pm CS Energy rebid 93 MW of capacity at Collinsville from prices below \$5/MWh to above \$9000/MWh. The reason given was “Colnsv\_rearrangement due to unit RTS”.

At 3.40 pm, effective from 3.50 pm, Stanwell shifted 100 MW of available capacity across its Gladstone units from prices below \$60/MWh to prices above \$9300/MWh. The reason given was “Manage transmission constraint::change MW distrib”. At 3.50 pm the 5-minute price spiked to \$4995/MWh.

There was no other significant rebidding.

### Friday, 30 January

<b>12:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	162.42	146.23	146.24
Demand (MW)	7499	7610	7610
Available capacity (MW)	10 075	9992	9992
<b>1:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	175.02	8174.30	296.47
Demand (MW)	7483	7687	7688
Available capacity (MW)	10 079	9995	9990
<b>2:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	186.70	9366.88	8700.00
Demand (MW)	7516	7750	7750
Available capacity (MW)	10 070	9966	9988
<b>2:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	169.47	8254.43	8700.00
Demand (MW)	7502	7755	7755
Available capacity (MW)	10 073	9964	9988

Conditions at the time saw demand up to 250 MW less than forecast and available capacity up to 100 MW greater than forecast. Prices were significantly lower than forecast made four hours ahead for the 1 pm to 2.30 pm trading intervals.

At 9.47 am, Origin Energy shifted 288 MW of capacity across its Mount Stuart units from prices above \$9000/MWh to prices below \$310/MWh. The reason given was “EST (N) change in PDS”.

At 11.56 am AGL rebid 150 MW of available capacity at Oakey Unit two from prices above \$230/MWh to below zero. The reason given was “Initial bid”.

There was no other significant rebidding.



**New South Wales:** There were 12 occasions where the spot price in New South Wales was greater than three times the New South Wales weekly average price of \$68/MWh

### Wednesday, 28 January

<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	251.88	149.95	149.95
Demand (MW)	12 703	11 934	11 911
Available capacity (MW)	14 969	14 937	14 996
<b>4:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	275.76	162.71	155.62
Demand (MW)	12 769	12 044	11 921
Available capacity (MW)	14 970	14 937	14 996

Conditions at the time saw demand up to 840 MW greater than forecast four hours ahead and available capacity close to forecast.

From 11.11 am, over several rebids, Delta Electricity shifted 200 MW of capacity across its Mount Piper units and Vales Point units, from prices below \$120/MWh to prices above \$9700/MWh. The reasons given were “Interconnector line constraint::Band shift”, “Testing management::Band shift” and “Canel temp management::Band shift”.

Over several rebids from 11.38 am Origin Energy rebid 420 MW of available capacity at Uranquinty from prices above \$9000/MWh to close to the price floor, committing an additional three units online (unit 13 was already online). The reason given was “Change in PDS”.

There was no other significant rebidding.

### Thursday, 29 January

<b>2:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	233.04	266.54	299.89
Demand (MW)	12 779	12 526	12 532
Available capacity (MW)	14 703	14 520	15 109
<b>2:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	273.11	299.89	706.00
Demand (MW)	12 858	12 770	12 636
Available capacity (MW)	14 820	14 970	15 109
<b>3:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	299.89	300.83	300.83
Demand (MW)	12 996	12 850	12 697
Available capacity (MW)	14 841	14 970	15 109
<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	305.05	303.81	307.97
Demand (MW)	13 085	12 886	12 755
Available capacity (MW)	14 824	14 980	15 109
<b>4:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2657.59	308.04	706.00
Demand (MW)	13 149	12 912	12 760
Available capacity (MW)	14 825	14 990	15 035
<b>4:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	276.20	2760.97	300.89
Demand (MW)	13 022	12 833	12 697
Available capacity (MW)	14 879	14 840	15 035
<b>5:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	258.94	244.83	246.00
Demand (MW)	12 937	12 612	12 507
Available capacity (MW)	14 828	14 960	15 035

Conditions at the time saw demand up to 430 MW greater than forecast 12 hours ahead and at near-record levels for summer. Available capacity was up to 400 MW less than forecast 12 hours ahead.

At 11.13 am, first effective for the 2.30 pm trading interval, Eraring Energy shifted 200 MW of capacity from prices below \$100/MWh to prices above \$8000/MWh. The reason given was “Predispatch sensitivities greater than expected@10:17”.

At 2.51 pm, first effective for the 3.30 pm trading interval, Macquarie Generation shifted 210 MW of capacity across the Bayswater units two, three and four from prices below \$90/MWh to prices at above \$6100/MWh. The reason given was “Material changes in market conditions”.

There was no other significant rebidding.

### Friday, 30 January

<b>3:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	225.40	8838.70	8800.00
Demand (MW)	12 953	12 926	12 723
Available capacity (MW)	14 745	14 714	15 036
<b>4:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	256.83	9350.01	8800.00
Demand (MW)	12 920	12 857	12 867
Available capacity (MW)	14 737	14 743	15 036

Conditions at the time saw demand and available capacity close to forecast four hour ahead. Prices were significantly lower than that forecast four hours ahead.

Over several rebids from 10.19 am, Snowy Hydro shifted 450 MW of capacity across its portfolio from prices above \$9700/MWh to below \$310/MWh.

Over several rebids from 8.09 am, Origin Energy shifted 280 MW of capacity across Uranquinty from prices above \$9300/MWh to below zero and another 145 MW was rebid inflexible. The reasons given were “Change in PDS” and “Commissioning”.

At 11.58 am, TRUenergy shifted 220 MW of capacity at its Tallawarra unit, from prices at above \$9900/MWh to prices below \$300/MWh. The reason given was “Portfolio optimisation”.

At 12.50 pm, Delta Electricity shifted 440 MW of capacity across its Mount Piper units from prices at above \$9500/MWh to prices at below \$40/MWh. The reason given was “Price differs to forecast::Band shift”.

At 1.50 pm Macquarie Generation rebid 270 MW of capacity across its portfolio from prices above \$4700/MWh to below \$90/MWh. The reason given was “Changed market conditions”.

There was no other significant rebidding.

### Saturday, 31 January

<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	269.11	88.77	59.98
Demand (MW)	11 894	11 234	10 670
Available capacity (MW)	14 508	14 700	14 701

Conditions at the time saw demand up to 660 MW greater than that forecast four hours ahead and available capacity around 200 MW less than that forecast. There was no significant rebidding.

**Victoria:** There were 18 occasions where the spot price in Victoria was greater than three times the Victoria weekly average price of \$619/MWh.

**Wednesday, 28 January**

<b>3:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2648.28	3216.44	3133.74
Demand (MW)	9959	9715	9576
Available capacity (MW)	9584	10 073	10 214
<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	6035.89	3136.30	3159.11
Demand (MW)	10 060	9852	9682
Available capacity (MW)	9586	10 047	10 214
<b>4:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2196.99	3246.48	3188.11
Demand (MW)	10 035	10000	9706
Available capacity (MW)	9590	9974	10 214

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.

**Thursday, 29 January**

<b>8:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2641.34	95.93	44.92
Demand (MW)	8530	7634	7278
Available capacity (MW)	9745	9823	9931
<b>8:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9511.49	121.34	52.84
Demand (MW)	8894	7927	7641
Available capacity (MW)	9617	9750	9913
<b>9:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	10000.00	163.41	105.21
Demand (MW)	9142	8239	7900
Available capacity (MW)	9398	9710	9913
<b>9:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2194.45	268.92	116.98
Demand (MW)	9356	8546	8156
Available capacity (MW)	9508	9720	9913
<b>11:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	4988.69	459.51	129.43
Demand (MW)	10 214	9322	8963
Available capacity (MW)	9525	10 160	10 195
<b>11:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2773.48	674.40	152.37
Demand (MW)	10 218	9611	9187
Available capacity (MW)	9537	10 180	10 215
<b>12:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	5098.65	10000.00	152.37
Demand (MW)	10 303	9954	9364
Available capacity (MW)	9600	10 180	10 215
<b>12:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	5885.40	10000.00	270.14
Demand (MW)	10 445	10 128	9576
Available capacity (MW)	9605	10 100	10 230
<b>1:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9897.98	10000.00	289.18
Demand (MW)	10 309	9531	9969
Available capacity (MW)	9566	10 081	10 231

**Thursday, 29 January (cont)**

<b>1:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9584.80	1017.04	319.14
Demand (MW)	10 206	10 244	9999
Available capacity (MW)	9655	9951	10 231
<b>2:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9357.65	305.79	909.97
Demand (MW)	10 393	10 342	10 173
Available capacity (MW)	9696	9894	10 231
<b>2:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9500.84	341.55	871.44
Demand (MW)	10 118	10 293	10 149
Available capacity (MW)	9706	9770	10 226
<b>3:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	10000.00	8350.39	9500.00
Demand (MW)	10 120	10 316	10 251
Available capacity (MW)	9676	9758	10 227
<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	8383.34	9486.37	9540.37
Demand (MW)	10 212	10 415	10 355
Available capacity (MW)	9665	9731	10 219
<b>4:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	6872.23	10000.00	9747.04
Demand (MW)	10 440	10 498	10 425
Available capacity (MW)	9668	9741	10 214

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.

**South Australia:** There were 19 occasions where the spot price in South Australia was greater than three times the South Australia weekly average price of \$693/MWh.

**Wednesday, 28 January**

<b>1:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2483.86	143.80	145.00
Demand (MW)	3253	3106	2899
Available capacity (MW)	3103	3292	3223
<b>3:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9999.77	9999.77	9999.77
Demand (MW)	3255	3253	3077
Available capacity (MW)	3184	3322	3293
<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9999.77	9999.77	9999.77
Demand (MW)	3290	3276	3111
Available capacity (MW)	3129	3302	3283
<b>4:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9999.77	9999.77	9999.77
Demand (MW)	3318	3298	3137
Available capacity (MW)	3190	3300	3274
<b>4:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9999.77	9999.77	9999.77
Demand (MW)	3308	3303	3135
Available capacity (MW)	3126	3327	3336
<b>5:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9999.77	9999.77	9999.77
Demand (MW)	3288	3287	3119
Available capacity (MW)	3240	3368	3334

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.

### Thursday, 29 January

<b>8:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2392.62	100.77	48.97
Demand (MW)	2529	2401	2190
Available capacity (MW)	3072	2961	2951
<b>8:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	8266.44	124.03	55.77
Demand (MW)	2625	2494	2330
Available capacity (MW)	3038	3028	2972
<b>9:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9398.05	174.09	106.39
Demand (MW)	2724	2588	2468
Available capacity (MW)	3051	3003	3054
<b>9:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2115.60	289.27	120.79
Demand (MW)	2791	2675	2574
Available capacity (MW)	3082	3004	3132
<b>11:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	4884.72	400.10	136.19
Demand (MW)	3006	2887	2818
Available capacity (MW)	3210	3400	3289
<b>11:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2716.93	499.60	162.15
Demand (MW)	3014	2974	2878
Available capacity (MW)	3182	3400	3287
<b>12:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	5042.02	9999.98	166.11
Demand (MW)	3053	3019	2940
Available capacity (MW)	3161	3401	3287
<b>12:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	5594.24	10000.00	294.27
Demand (MW)	3116	3218	2975
Available capacity (MW)	3199	3409	3286
<b>1:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	3353.56	10000.00	400.79
Demand (MW)	3181	3261	3081
Available capacity (MW)	3251	3404	3286
<b>1:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	4126.81	1000.60	401.46
Demand (MW)	3228	3289	3123
Available capacity (MW)	3314	3419	3285
<b>2:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9999.92	315.59	1000.00
Demand (MW)	3251	3305	3149
Available capacity (MW)	3320	3421	3285
<b>2:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9470.63	354.50	1000.00
Demand (MW)	3158	3331	3188
Available capacity (MW)	3313	3426	3305
<b>3:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	9733.23	8899.01	9999.77
Demand (MW)	3076	3359	3224
Available capacity (MW)	3350	3430	3315

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.

**Tasmania:** There were 19 occasions where the spot price in Tasmania was greater than three times the Tasmania weekly average price of \$194/MWh.

### Thursday, 29 January

<b>9:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1315.95	260.26	120.42
Demand (MW)	1175	1248	1245
Available capacity (MW)	2145	2132	2132
<b>10:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1136.79	260.26	154.45
Demand (MW)	1222	1251	1245
Available capacity (MW)	2115	2132	2132
<b>10:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1033.53	251.24	154.45
Demand (MW)	1257	1243	1240
Available capacity (MW)	2115	2132	2132
<b>11:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	4416.15	260.04	126.62
Demand (MW)	1278	1247	1241
Available capacity (MW)	2130	2132	2132
<b>11:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	953.14	260.26	153.64
Demand (MW)	1247	1258	1238
Available capacity (MW)	2151	2132	2132
<b>12:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	3491.16	260.26	260.04
Demand (MW)	1264	1226	1237
Available capacity (MW)	2144	2156	2132
<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1286.22	1.28	97.58
Demand (MW)	1264	1209	1261
Available capacity (MW)	2190	2167	2179
<b>4:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	3292.90	1.26	97.58
Demand (MW)	1281	1225	1274
Available capacity (MW)	2167	2167	2179
<b>5:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1125.84	-999.68	97.58
Demand (MW)	1297	1266	1276
Available capacity (MW)	2167	2167	2179
<b>6:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2015.35	260.18	1570.10
Demand (MW)	1240	1207	1205
Available capacity (MW)	2179	2179	2179
<b>7:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	6778.32	260.22	275.50
Demand (MW)	1234	1206	1207
Available capacity (MW)	2179	2179	2179
<b>7:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1754.49	120.36	163.68
Demand (MW)	1263	1202	1201
Available capacity (MW)	2179	2179	2179

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.

**Friday, 30 January**

<b>9:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1153.61	216.25	156.84
Demand (MW)	1345	1276	1274
Available capacity (MW)	2084	2035	2035
<b>9:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	4587.38	260.26	260.26
Demand (MW)	1341	1266	1266
Available capacity (MW)	2111	2035	2035
<b>10:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	5442.84	8660.04	7039.47
Demand (MW)	1357	1268	1266
Available capacity (MW)	2179	2035	2035
<b>10:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	4362.56	8660.10	8660.10
Demand (MW)	1370	1265	1266
Available capacity (MW)	2202	2035	2035
<b>11:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	6880.22	8660.16	8660.26
Demand (MW)	1341	1261	1262
Available capacity (MW)	2214	2035	2035
<b>11:30 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	2537.19	8660.16	8660.26
Demand (MW)	1325	1257	1255
Available capacity (MW)	2185	2035	2035
<b>12:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	1026.43	8313.96	8562.32
Demand (MW)	1313	1259	1252
Available capacity (MW)	2179	2035	2035

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.

# 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	39	47	60	90	49
2007-08 (\$/MWh) YTD	55	49	51	74	54
Change	-30%	-3%	17%	22%	-9%
2007-08 (\$/MWh)	58	44	51	101	57

**Table 2: NEM turnover**

Financial year	NEM Turnover* (\$, billion)	Energy (TWh)
2008-09 YTD	\$6.3	124
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	VIC	SA	TAS	Turnover (\$, billion)
Sep-08	32	37	38	34	46	0.61
Oct-08	43	94	41	37	47	1.05
Nov-08	40	32	36	34	51	0.60
Dec-08	36	25	23	26	33	0.48
Jan-09	44	57	190	374	85	1.96
Q4 2008	39	51	34	32	44	2.13
Q4 2007	56	41	44	46	44	2.35
Change	-29%	23%	-23%	-30%	0%	-0.48%

**Table 4: ASX energy futures contract prices at 2 February**

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2009								
Price on 23 Jan (\$/MW)	59	101	46	75	54	92	118	200
Price on 02 Feb (\$/MW)	64	100	52	75	79	140	130	200
Open interest on 02 Feb	2490	263	2745	221	2430	474	267	20
Traded in the last week (MW)	30	15	20	0	45	0	0	0
Traded since 1 Jan 08	6026	544	6444	275	5074	787	529	40
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	VIC	SA	TAS	NEM
November 08 with November 07						
MW Priced <\$20	-175	391	26	4	-62	183
MW Priced \$20 to \$50	450	25	-41	10	-27	417
December 08 with December 07						
MW Priced <\$20	-78	295	805	-142	16	897
MW Priced \$20 to \$50	320	414	-150	145	140	870
January 09 with January 08						
MW Priced <\$20	-423	-799	25	39	-26	-1184
MW Priced \$20 to \$50	420	1043	178	52	-64	1629