WEEKLY ELECTRICITY MARKET ANALYSIS

AUSTRALIAN ENERGY REGULATOR

30 January - 5 February 2011

Summary

Hot weather on the mainland drove extreme demand, especially in South Australia and New South Wales where new demand records were set. The spot price exceeded $5000/MWh for 32 trading intervals in total across the mainland regions from 31 January to 2 February. In accordance with clause 3.13.7(d) of the National Electricity Rules, the AER is required to publish reports into the circumstances that led to the spot prices exceeding $5000/MWh.

There were further high prices in New South Wales and Queensland from 3 to 5 February, leading to high weekly average spot prices across all mainland regions, ranging from $189/MWh in Victoria to $627/MWh in New South Wales.

On 1 February the price for lower frequency control ancillary services (FCAS) in South Australia exceeded $5000/MW for several dispatch intervals, significantly exceeding the energy price in that region. In accordance with clause 3.13.7(e) of the National Electricity Rules, the AER is required to publish a report into the circumstances that led to the FCAS prices exceeding $5000/MW.

During the week there were also periods of negative pricing: in Tasmania on 3 February and in Victoria and South Australia on 5 February.

The week ending 7 February was one of the highest trading weeks on record for exchange traded contracts.

Spot market prices

Figure 1 sets out the volume weighted average (VWA) prices for the week 30 January to 5 February and the 10/11 financial year to date (YTD) 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
Average price for 30 Jan - 5 Feb 2011	400	627	189	582	32
% change from previous week*	753	728	603	1847	15
10/11 financial YTD	38	52	29	50	31
% change from 09/10 financial YTD **	-14	-18	-22	-46	18

*The percentage change between last week's average spot price and the average price for the previous week. Calculated on VWA prices prior to rounding.
**The percentage change between the average spot price for the current financial year and the average spot price for the previous financial year. Percentage changes are calculated on VWA prices prior to rounding.

Further information is provided in Appendix A when the spot price exceeds three times the weekly average and is above $250/MWh, or is below $-100/MWh. Longer term market trends are attached in Appendix B[1].

Financial markets

Figures 2 to 9 show futures contract[2] prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 7 February 2011. Figure 2 shows the base futures contract prices for the next three calendar years, and the average over these three years. Also shown are percentage changes[3] from the previous week.

Figure 2: Base calendar year futures contract prices ($/MWh)

	QLD		NSW		VIC		SA	
Calendar Year 2011	38*	20%	47	17%	32	-2%	40	13%
Calendar Year 2012	35*	3%	42*	2%	35	1%	41	4%
Calendar Year 2013	40	3%	49	0%	45	0%	69	0%
Three year average	38	8%	46	6%	37	0%	50	4%

Source: d-cyphaTrade www.d-cyphatrade.com.au
* denotes trades in the product.

Figure 3 shows the $300 cap contract price for Q1 2011 and calendar year 2011 and the percentage change[4] from the previous week.

Figure 3: $300 cap contract prices ($/MWh)

	QLD		NSW		VIC		SA	
Q1 2011 (% change)	30*	130%	45*	73%	17*	-18%	35	59%
2011 (% change)	11	67%	18	41%	6	-12%	12	37%

Source: d-cyphaTrade www.d-cyphatrade.com.au
* denotes trades in the product.

Figure 4 shows the weekly trading volumes for base, peak and cap contracts. The date represents the end of the trading week.

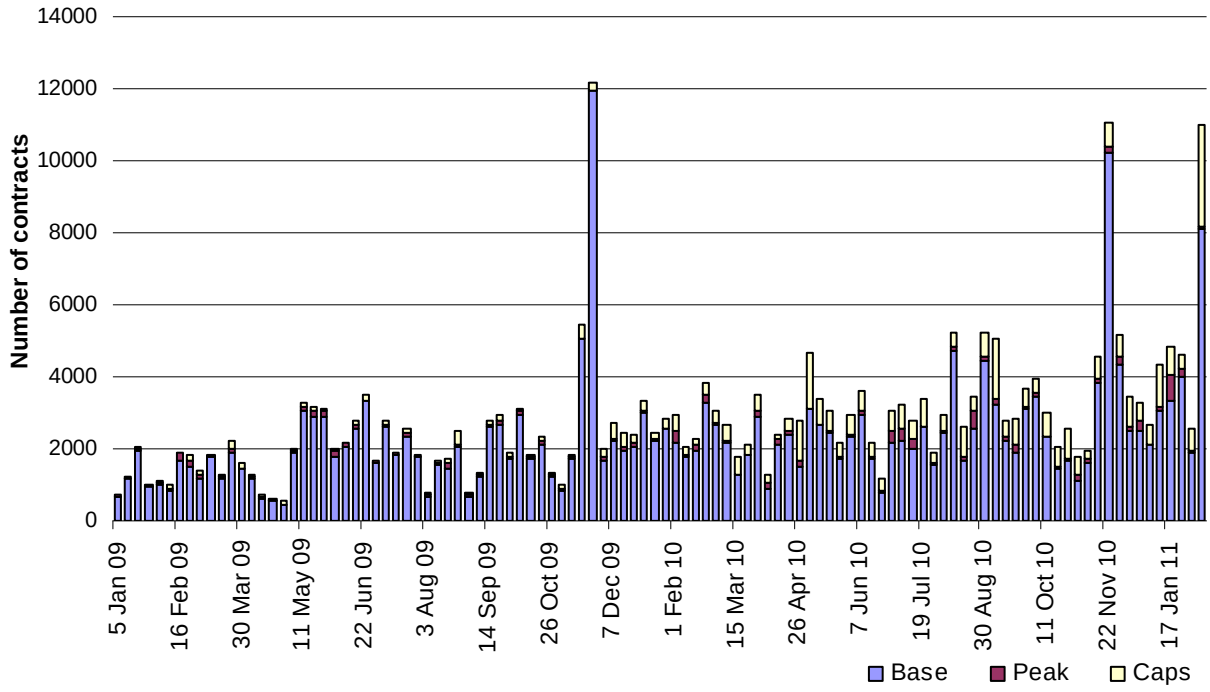
[1] Monitoring the performance of the wholesale market is a key part of the AER's role and an overview of the market's performance in the long term is provided on the AER website. Long-term statistics can be found there on, amongst other things, demand, spot prices, contract prices and frequency control ancillary services prices. To access this information go to
www.aer.gov.au -> Monitoring, reporting and enforcement -> Electricity market reports -> Long-term analysis.

[2] Futures contracts traded 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.

[3] Calculated on prices prior to rounding.

[4] Calculated on prices prior to rounding.

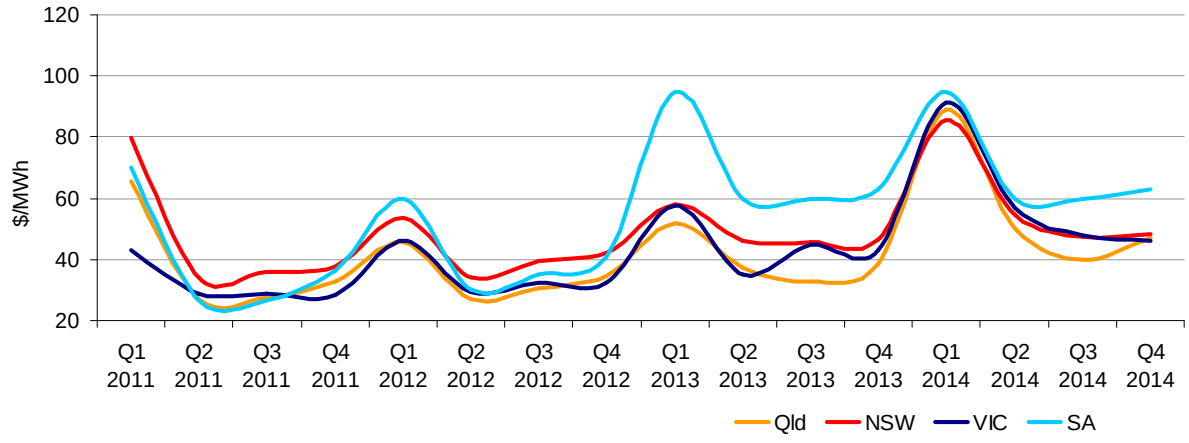
Figure 4: Number of exchange traded contracts per week



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

Figure 5 shows the prices for base contracts for each quarter for the next four financial years.

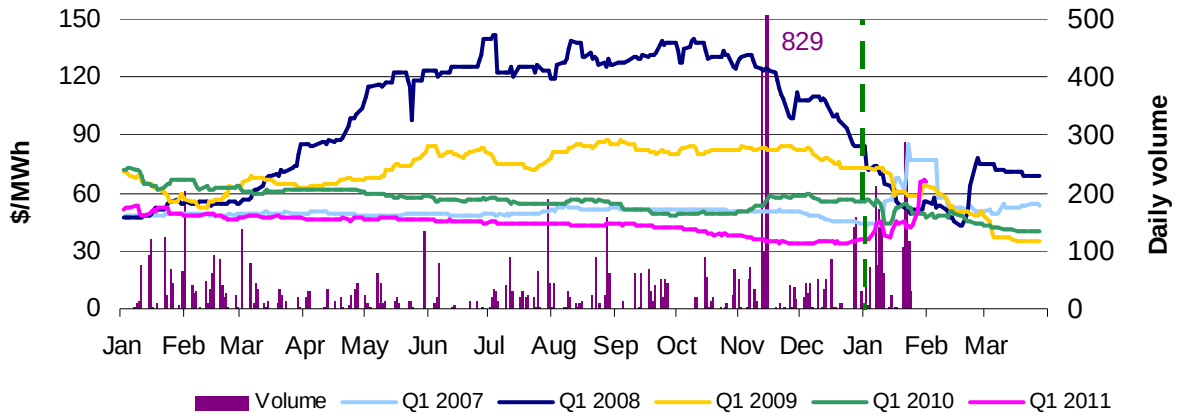
Figure 5: Quarterly base future prices Q1 2011 – Q4 2014



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

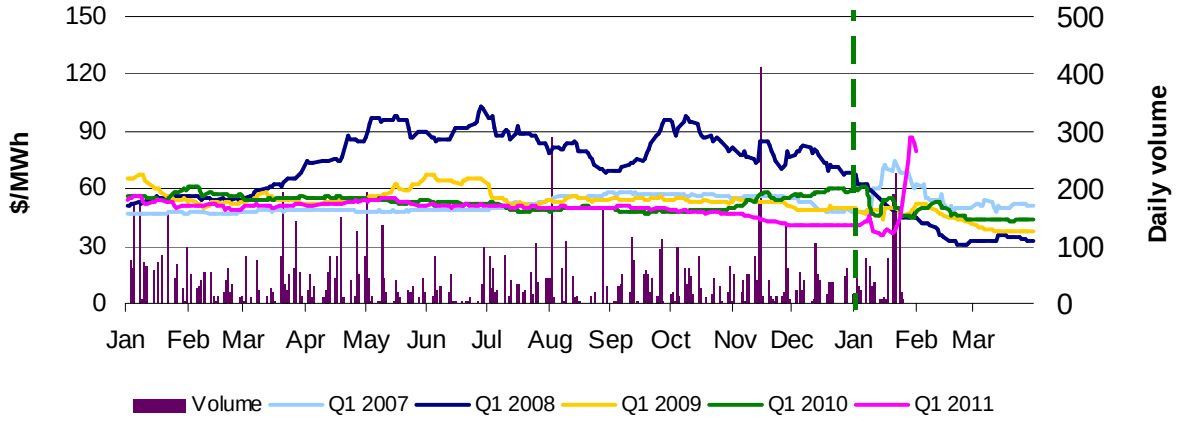
Figures 6-9 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009, 2010 and 2011. Also shown is the daily volume of Q1 2011 base contracts traded. The vertical dashed line signifies the start of the Q1 period for which the contracts are being purchased. To understand the diagrams, the dark-blue line in figure 6 demonstrates that throughout the middle of 2007, the market had an expectation of very high spot prices in the first quarter of 2008.

Figure 6: Queensland Q1 2007, 2008, 2009, 2010 and 2011



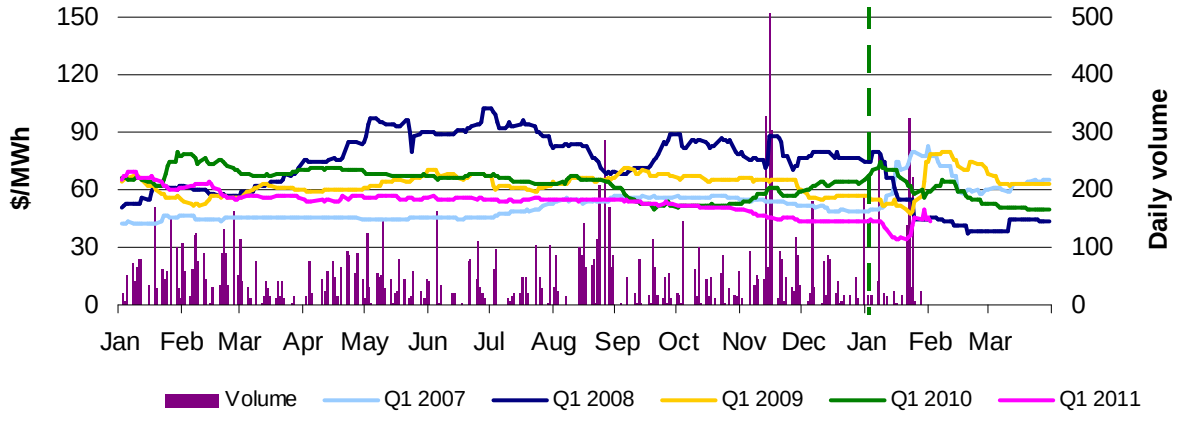
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 7: New South Wales Q1 2007, 2008, 2009, 2010 and 2011



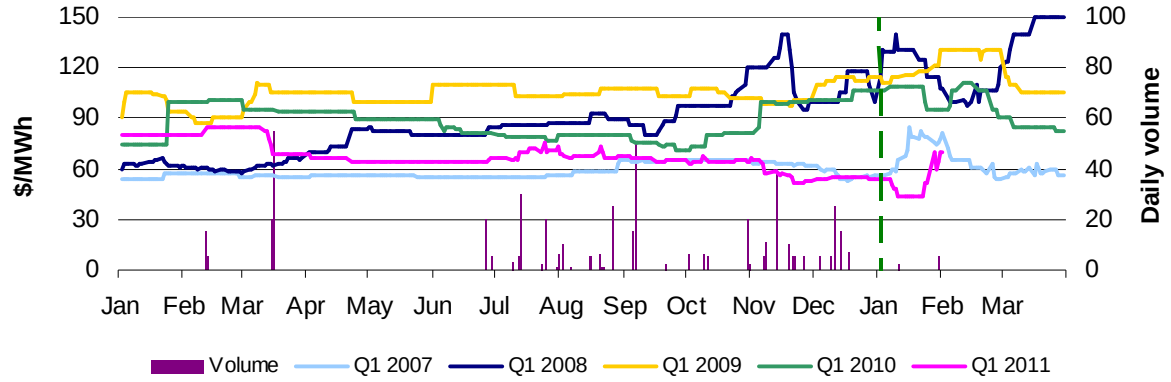
Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 8: Victoria Q1 2007, 2008, 2009, 2010 and 2011



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

Figure 9: South Australia Q1 2007, 2008, 2009, 2010 and 2011



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

*The daily volume scale for South Australia is smaller than for other regions to reflect the lower liquidity in the market in South Australia.

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) and 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 228 trading intervals throughout the week where actual prices varied significantly from forecasts[5]. This compares to the weekly average in 2010 of 57 counts and the average in 2009 of 103. Reasons for these variances are summarised in Figure 10[6].

Figure 10: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
% of total above forecast	8	38	1	6
% of total below forecast	18	27	0	2

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 11 shows the weekly change in total available capacity at various price levels during peak periods[7]. For example, in Queensland 364 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.

[5] 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.

[6] 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.

[7] A peak period is defined as between 7 am and 10 pm on weekdays.

Figure 11: Changes in available generation and average demand compared to the previous week during peak periods

MW	<$20/MWh	Between $20 and $50/MWh	Total availability	Change in average demand
QLD	-364	159	43	261
NSW	1426	-265	1062	1879
VIC	287	389	145	1342
SA	193	4	314	624
TAS	245	-69	72	90
TOTAL	1787	218	1636	4196

Ancillary services market

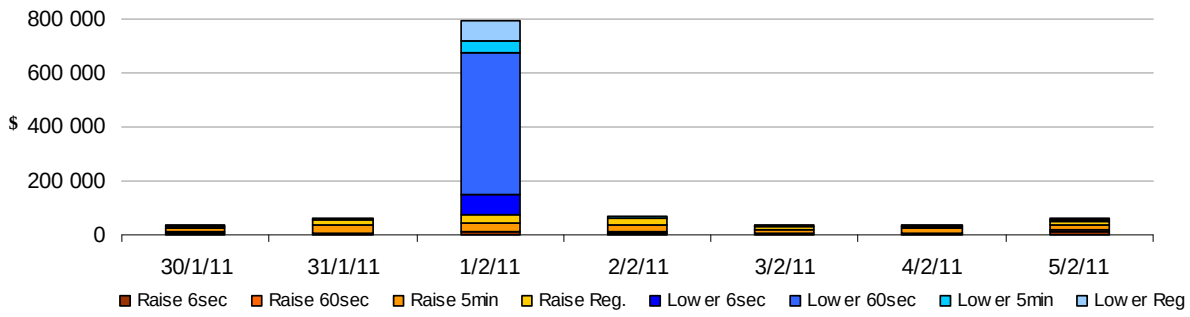
The total cost of FCAS on the mainland for the week was $1m, which is four times the usual cost, but still less than one per cent of energy turnover on the mainland.

The cost of lower 6 second and lower 60 second services for 1 February were $76 647 and $526 553 respectively. Almost all of these costs were accrued in South Australia because prices exceeded $5000/MW over a number of dispatch intervals for local services required in that region.

The total cost of FCAS in Tasmania for the week was $64 000 or just over one per cent of energy turnover in Tasmania.

Figure 12 shows the daily breakdown of cost for each FCAS for the NEM.

Figure 12: Daily frequency control ancillary service cost



Australian Energy Regulator
April 2011

Detailed Market Analysis

AUSTRALIAN ENERGY REGULATOR

30 January – 5 February 2011

Queensland:

There were sixteen occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of $399/MWh and above $250/MWh.

Tuesday, 1 February

1 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1308.61	270.02	268.24
Demand (MW)	7702	7593	7560
Available capacity (MW)	11 298	11 261	11 334
1:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	3289.14	290.80	270.02
Demand (MW)	7734	7635	7592
Available capacity (MW)	11 282	11 259	11 331
2 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	4317.31	295.00	286.17
Demand (MW)	7769	7691	7672
Available capacity (MW)	11 294	11 252	11 329
2:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	2552.98	290.80	289.75
Demand (MW)	7821	7745	7725
Available capacity (MW)	11 304	11 251	11 327

3 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	3572.16	315.71	289.75
Demand (MW)	7804	7740	7734
Available capacity (MW)	11 297	11 090	11 325
3:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	6109.80	305.01	290.80
Demand (MW)	7806	7718	7676
Available capacity (MW)	11 277	11 265	11 326
4:00 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	7349.99	298.76	290.80
Demand (MW)	7834	7710	7700
Available capacity (MW)	11 300	11 273	11 329
4:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5831.57	298.00	289.75
Demand (MW)	7803	7717	7702
Available capacity (MW)	11 290	11 271	11 315

In accordance with clause 3.13.7 of the National Electricity Rules, the AER is required to publish a report into the circumstances that led to the spot prices exceeding $5000/MWh.

Wednesday, 2 February

1 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1699.54	290.00	295.58
Demand (MW)	7845	7851	7821
Available capacity (MW)	10 922	11 276	11 454

2 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	4922.98	3490.80	295.00
Demand (MW)	7926	7955	7938
Available capacity (MW)	10 835	10 998	11 449
2:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5198.13	4002.46	295.00
Demand (MW)	7949	7977	7978
Available capacity (MW)	10 921	10 998	11 447
3 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	8218.62	537.69	439.93
Demand (MW)	7904	7847	7994
Available capacity (MW)	10 846	10 937	11 445
3:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	8088.42	450.03	488.81
Demand (MW)	7867	7832	7989
Available capacity (MW)	10 840	10 940	11 446
4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9043.67	450.03	450.03
Demand (MW)	7914	7820	7970
Available capacity (MW)	10 878	10 943	11 449
4:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	8088.38	450.03	450.03
Demand (MW)	7928	7828	7971
Available capacity (MW)	10 723	10 961	11 452

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Friday, 4 February

12 PM	Actual	4 hr forecast	12 hr forecast
Price ($/MWh)	1663.09	79.99	51.19
Demand (MW)	7681	7367	7024
Available capacity (MW)	10 889	10 936	11 299

Conditions at the time saw high levels of demand, 314 MW above that forecast four hours ahead and 657 MW above that forecast twelve hours ahead. Available capacity was close to that forecast four hours ahead but 410 MW lower than that forecast 12 hours ahead. Prices were aligned with those in New South Wales.

At 11.50 am, the 5 minute price reached $8539/MWh in Queensland and $8664/MWh in New South Wales. This was a result of a system normal constraint reducing imports into New South Wales across the Victoria to New South Wales interconnector by around 615 MW, from 1137 MW at 11.45 am to 524 MW at 11.50 am. At the same time there was an increase in demand of 92 MW in Queensland.

From 5.37 am, Origin Energy reduced the available capacity of Darling Downs Power Station by 260 MW (priced less than $90/MWh). The reason given was “530P change in avail – gas valve issues – et 7 hrs sl” and “710P change in plant conditions – pipeline pressure”.

At 8.32 am, CS Energy rebid 255 MW of capacity at Callide B from prices below $45/MWh to above $11 700/MWh. The reason given was “0830A CS Energy interconnector constraint sl”.

From 8.40 am, Callide Power Trading shifted 302 MW of capacity at its Callide C Power Station units from price bands below $15/MWh to above $11 800/MWh. The reasons given were “0837 A: interconnector constraint 8:3” and “840 A: QNI pd constraint pd2011020410”.

At 8.42 am, Millmerran Energy Trader rebid 165 MW of capacity at Millmerran Power Station from prices below $10/MWh to above $12 000/MWh. The reason given was “08:41 A: 5min QLD demand higher than 30min predispatch”.

There was no other significant rebidding.

New South Wales:

There were twenty occasions where the spot price in NSW was greater than three times the NSW weekly average price of $625/MWh and above $250/MWh.

Monday, 31 January

3:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	2201.22	295.28	6464.36
Demand (MW)	13 791	13 586	13 567
Available capacity (MW)	13 698	13 658	13 828
4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	6019.97	6482.59	6607.85
Demand (MW)	13 827	13 786	13 581
Available capacity (MW)	13 695	13 658	13 828
4:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	4422.05	295.28	6575.90
Demand (MW)	13 760	13 567	13 584
Available capacity (MW)	13 688	13 658	13 828

In accordance with clause 3.13.7 of the National Electricity Rules, the AER is required to publish a report into the circumstances that led to the spot prices exceeding $5000/MWh.

Tuesday, 1 February

1:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5039.89	364.87	297.27
Demand (MW)	13 715	13 659	13 649
Available capacity (MW)	14 032	14 152	14 097
2 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	4932.03	9821.91	321.07
Demand (MW)	13 807	13 761	13 776
Available capacity (MW)	14 012	14 152	14 097

2:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	3121.51	336.79	322.83
Demand (MW)	13 934	13 883	13 888
Available capacity (MW)	14 032	14 152	14 097
3 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	7079.65	415.79	327.11
Demand (MW)	14 040	13 954	13 963
Available capacity (MW)	13 973	14 052	14 097
3:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 072.50	6568.63	332.06
Demand (MW)	14 323	14 031	14 049
Available capacity (MW)	13 901	14 052	14 097
4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 136.17	6549.69	332.80
Demand (MW)	14 526	14 021	14 033
Available capacity (MW)	13 669	14 052	14 097
4:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9544.52	7604.00	327.23
Demand (MW)	14 598	14 115	13 967
Available capacity (MW)	13 615	14 052	14 097

In accordance with clause 3.13.7 of the National Electricity Rules, the AER is required to publish a report into the circumstances that led to the spot prices exceeding $5000/MWh.

Wednesday, 2 February

1 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1923.57	304.00	320.01
Demand (MW)	13 779	13 703	13 448
Available capacity (MW)	13 795	13 848	14 072

2 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5581.95	5021.91	321.23
Demand (MW)	13 924	13 994	13 720
Available capacity (MW)	13 869	13 918	14 072
2:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5831.21	5021.91	321.10
Demand (MW)	14 035	14 049	13 773
Available capacity (MW)	13 882	13 918	14 072
3 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9173.00	7502.00	488.35
Demand (MW)	14 215	14 132	13 854
Available capacity (MW)	13 873	13 948	14 072
3:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	10 417.07	7604.00	11 744.01
Demand (MW)	14 387	14 203	13 951
Available capacity (MW)	13 868	13 948	14 072
4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	10 243.51	8934.30	11 953.46
Demand (MW)	14 432	14 331	14 097
Available capacity (MW)	13 851	13 948	14 072
4:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	8773.39	9958.00	516.51
Demand (MW)	14 223	14 402	14 070
Available capacity (MW)	13 840	13 942	14 072

In accordance with clause 3.13.7 of the National Electricity Rules, the AER is required to publish a report into the circumstances that led to the spot prices exceeding $5000/MWh.

Thursday, 3 February

2:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	2968.96	1254.00	8953.44
Demand (MW)	13 930	14 165	14 433
Available capacity (MW)	13 704	13 794	13 978
4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	2688.70	1358.00	12 400.00
Demand (MW)	14 466	14 322	14 470
Available capacity (MW)	13 652	13 754	13 981

Conditions at the time saw demand close to that forecast but at near record levels[8] as a result of continued high temperatures in NSW. Available capacity was also close to that forecast. Prices were lower than forecast 12 hours ahead but higher than forecast four hours ahead.

The price decrease between the 12 hour and four hour forecasts was driven by a change in forecast import capability into New South Wales across the QNI interconnector, rebids and falls in forecast demand.

For the 2.30 pm trading interval there was a decrease in demand of 267 MW and an increase in import capability into NSW across QNI of 553 MW. For the 4 pm trading interval there was a decrease in demand of 156 MW and an increase in import capability into NSW across QNI of 204 MW. At 8.05 am, Delta Electricity rebid 220 MW of capacity at its Vales Point Power Station from above $12 200/MWh into price bands below $290/MWh. The reason given was “0804P lake temp mgt band shift”.

The actual price was higher than the four hour ahead forecast. For the 2.30 pm trading interval, demand decreased by 235 MW but import capability into NSW across QNI decreased by 688 MW. For the 4 pm trading interval, demand increased by 144 MW and import capability into NSW across QNI decreased by 74 MW.

The high spot prices were driven by 5-minute price spikes of $12 400/MWh at 2.25 pm and 3.40 pm. All other 5-minute prices were under $1500/MWh.

There was no other significant rebidding.

[8] A new record of 14 598 MW occurred at 4.30 pm on 1 February. Previous record demand in NSW was in winter, reaching 14 287 MW on 28 July 2008. The previous record summer demand in NSW was 14 097 MW on 6 February 2009.

Saturday, 5 February

4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	2149.59	276.00	290.00
Demand (MW)	13 141	13 117	12 811
Available capacity (MW)	13 751	13 814	13 823

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

At 3.40 pm, the 5 minute price reached $12 500/MWh when a system normal constraint used to manage the overloading of the Marulan to Dapto line on the trip of the Marulan to Avon line was violated due a significant change in the dynamic rating of the Marulan to Dapto line. This constraint reduced the import capability across all interconnectors into NSW and constrained off generation. Combined import limits into NSW reduced by 978 MW at 3.40 pm, requiring higher priced local generation to be dispatched in the region. The 5-minute price fell to the price floor in South Australia and Victoria as a result of this step change.

Generation at Uranquinty Power Station was also constrained off, with output reduced by 221 MW from the previous dispatch interval. Other low priced generation was ramp rate limited and high priced generation was dispatched in its place.

There was no significant rebidding.

Victoria:

There were seven occasions where the spot price in Victoria was greater than three times the Victoria weekly average price of $189/MWh and above $250/MWh. There was also one occasion where the spot price in Victoria was below -$100/MWh.

Monday, 31 January

3 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	4024.44	11 305.83	10 780.84
Demand (MW)	8650	9453	9089
Available capacity (MW)	9805	9992	10 025
3:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9596.53	11 533.45	11 682.52
Demand (MW)	8627	9523	9231
Available capacity (MW)	9313	9923	10 029

4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1763.42	12 103.23	11 976.36
Demand (MW)	8564	9554	9346
Available capacity (MW)	9339	9893	10 053
4:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	4509.84	11 562.33	11 916.62
Demand (MW)	8528	9516	9358
Available capacity (MW)	9510	9897	10 076

In accordance with clause 3.13.7 of the National Electricity Rules, the AER is required to publish a report into the circumstances that led to the spot prices exceeding $5000/MWh.

Tuesday, 1 February

1 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1585.29	339.89	259.83
Demand (MW)	9521	9372	8948
Available capacity (MW)	9936	10 145	10 299
1:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5332.68	459.28	273.05
Demand (MW)	9535	9501	8977
Available capacity (MW)	9965	10 037	10 299
2 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5077.61	11 102.00	297.99
Demand (MW)	9378	9516	9015
Available capacity (MW)	9974	10 010	10 299

In accordance with clause 3.13.7 of the National Electricity Rules, the AER is required to publish a report into the circumstances that led to the spot prices exceeding $5000/MWh.

Saturday, 5 February

4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	-141.61	62.44	21.20
Demand (MW)	5407	5663	5775
Available capacity (MW)	9132	8806	9573

As a result of the step reduction in flows into NSW across the Victoria-NSW interconnector (described in the NSW section) generation dispatch needed to be reduced rapidly. On this occasion all positively priced capacity was ramp rate limited and at 3.40 pm the 5 minute price fell to -$922/MWh in Victoria and the price floor in South Australia.

There was no significant rebidding.

South Australia:

There were ten occasions where the spot price in South Australia was greater than three times the SA weekly average price of $581/MWh and above $250/MWh. There was also one occasion where the spot price in South Australia was below -$100/MWh.

Monday, 31 January

1:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	2315.50	11 300.00	590.00
Demand (MW)	3250	3276	3232
Available capacity (MW)	3395	3550	3515
2 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 099.23	629.41	11 300.00
Demand (MW)	3327	3300	3262
Available capacity (MW)	3358	3531	3499
2:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	11 999.38	12 199.00	12 199.00
Demand (MW)	3326	3289	3291
Available capacity (MW)	3359	3537	3489

3 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 199.53	12 495.00	12 199.00
Demand (MW)	3316	3308	3304
Available capacity (MW)	3339	3520	3475
3:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 198.70	12 495.00	12 499.30
Demand (MW)	3327	3320	3316
Available capacity (MW)	3339	3483	3462
4 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 132.53	12 499.30	12 499.40
Demand (MW)	3348	3339	3332
Available capacity (MW)	3309	3463	3450
4:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 182.70	12 199.60	12 499.51
Demand (MW)	3378	3355	3361
Available capacity (MW)	3291	3451	3404
5 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 066.03	608.91	12 495.00
Demand (MW)	3335	3344	3346
Available capacity (MW)	3282	3363	3400
5:30 PM	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	12 081.95	500.10	12 199.00
Demand (MW)	3302	3302	3308
Available capacity (MW)	3274	3332	3397

6 PM	Actual	4 hr forecast	12 hr forecast
Price ($/MWh)	9020.63	155.00	12 199.00
Demand (MW)	3263	3236	3241
Available capacity (MW)	3263	3319	3395

In accordance with clause 3.13.7 of the National Electricity Rules, the AER is required to publish a report into the circumstances that led to the spot prices exceeding $5000/MWh.

Saturday, 5 February

4 PM	Actual	4 hr forecast	12 hr forecast
Price ($/MWh)	-153.18	58.77	34.53
Demand (MW)	1266	1413	1430
Available capacity (MW)	2540	2591	2706

As a result of the step reduction in flows into NSW across the Victoria-NSW interconnector (described in the NSW section) generation dispatch needed to be reduced rapidly. On this occasion all positively priced capacity was ramp rate limited and at 3.40 pm the 5 minute price fell to -$922/MWh in Victoria and the price floor in South Australia.

There was no significant rebidding.

Tasmania:

There was one occasion where the spot price in Tasmania was below $-100/MWh.

Thursday, 3 February

10:30 AM	Actual	4 hr forecast	12 hr forecast
Price ($/MWh)	-104.31	40.82	30.72
Demand (MW)	1143	1218	1181
Available capacity (MW)	2127	2266	2266

Conditions at the time saw demand up to 75 MW below that forecast four hours ahead, while available capacity was 139 MW lower than forecast.

From 9.43 am, Hydro Tasmania made two rebids that shifted around 920 MW of capacity to prices below zero, effectively immediately. The reasons given included “0945A Basslink flow < expected sl” and “0945A P5 Prices > Forecast”. This resulted in Hydro Tasmania having 88 per cent of its available capacity priced below zero. This caused the 5-minute price to fall to under zero from 9.50 am. The non-scheduled Woolnorth wind farm reduced output to zero from 10.30 am coincident with the negative prices.

Detailed NEM Price and Demand Trends

for Weekly Market Analysis
30 January - 5 February 2011

AUSTRALIAN ENERGY REGULATOR

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

Financial year	QLD	NSW	VIC	SA	TAS
2010-11 ($/MWh) YTD	38	52	29	50	31
2009-10 ($/MWh) YTD	44	64	38	93	27
Change*	-14%	-18%	-22%	-46%	18%
2009-10 ($/MWh)	37	52	42	82	30

Table 2: NEM turnover

Financial year	NEM Turnover** ($, billion)	Energy (TWh)
2010-11 (YTD)	$5.130	123
2009-10	$9.643	206
2008-09	$9.413	208

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)
Oct-10	20	23	21	25	18	0.358
Nov-10	18	23	19	26	29	0.346
Dec-10	23	23	17	19	17	0.315
Jan-11	48	58	50	183	26	0.959
Feb-11(MTD)	523	750	128	49	31	1.424
Q4 2010	21	23	19	23	21	1.050
Q4 2009	53	100	29	134	31	3.555
Change*	-61%	-77%	-35%	-83%	-30%	-70.47%

Table 4: ASX energy futures contract prices at end of 7 February

	QLD		NSW		VIC		SA	
Q1 2011	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 31 Jan ($/MW)	43	66	54	65	46	57	51	80
Price on 07 Feb ($/MW)	66	82	80	144	43	71	70	88
Open interest on 07 Feb	1607	162	2644	339	2353	215	222	9
Traded in the last week (MW)	806	0	610	8	606	0	5	0
Traded since 1 Jan 10 (MW)	9754	248	11059	614	12981	414	487	9
Settled price for Q1 10($/MW)	40	65	44	68	50	89	83	160

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

Comparison:	QLD	NSW	VIC	SA	TAS	NEM
December 10 with December 09						
MW Priced <$20/MWh	-526	-481	952	295	753	992
MW Priced $20 to $50/MWh	329	140	-399	-32	-343	-306
January 11 with January 10						
MW Priced <$20/MWh	-500	-928	-218	404	383	-859
MW Priced $20 to $50/MWh	-10	-204	24	168	-318	-339
February 11 with February 10 (MTD)						
MW Priced <$20/MWh	-256	611	294	515	288	1452
MW Priced $20 to $50/MWh	-123	-757	282	323	41	-235

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