WEEKLY MARKET ANALYSIS

AUSTRALIAN ENERGY REGULATOR

11 – 17 January 2009

Summary

Near-record summer demand led to higher than average spot prices in all regions[1]. In South Australia the spot price exceeded $5000/MWh for eight trading intervals on Tuesday leading to an average weekly price of $441/MWh. In New South Wales the spot price reached $5020/MWh on Thursday. In accordance with the requirements of the National Electricity Rules, the AER will be issuing reports into the circumstances that led to the spot price exceeding $5000/MWh for the South Australia and New South Wales events.

Spot market prices

Figure 1 sets out the volume weighted average prices for 11 to 17 January 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)

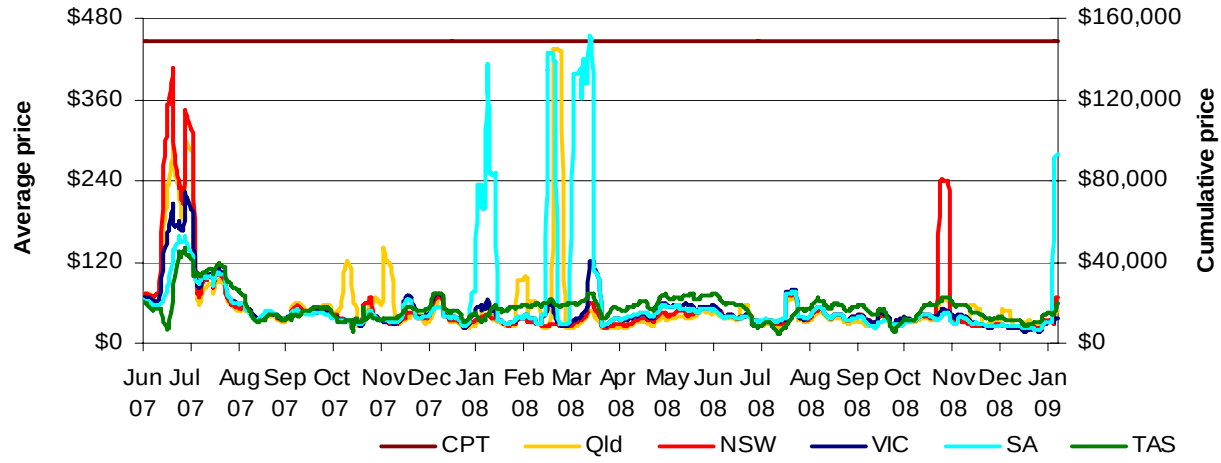
	Qld	NSW	VIC	SA	Tas
Ave price for 11 – 17 January	51	87	41	441	63
Financial year to 17 January	38	46	38	52	44
% change from previous week*	51%	127%	28%	1229%	42%
% change from year to date**	-30%	-6%	-28%	-31%	-19%

*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).

Figure 2: Seven day rolling cumulative price and CPT



[1] Long term statistics are available at http://www.aer.gov.au

Financial markets

Figures 3 to 10 show futures contract[2] prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 19 January. 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	46	-4%*	47	-1%*	48	-2%*	57	0%*
Financial 2010-11	58	-5%*	60	-2%*	62	-2%*	62	0%*
Financial 2011-12	63	-2%*	63	0%*	66	-1%*	65	0%*
Three year average	55	-4%	57	-1%	59	-1%	61	0%

Source: d-cyphaTrade www.d-cyphatrade.com.au
* There were 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.

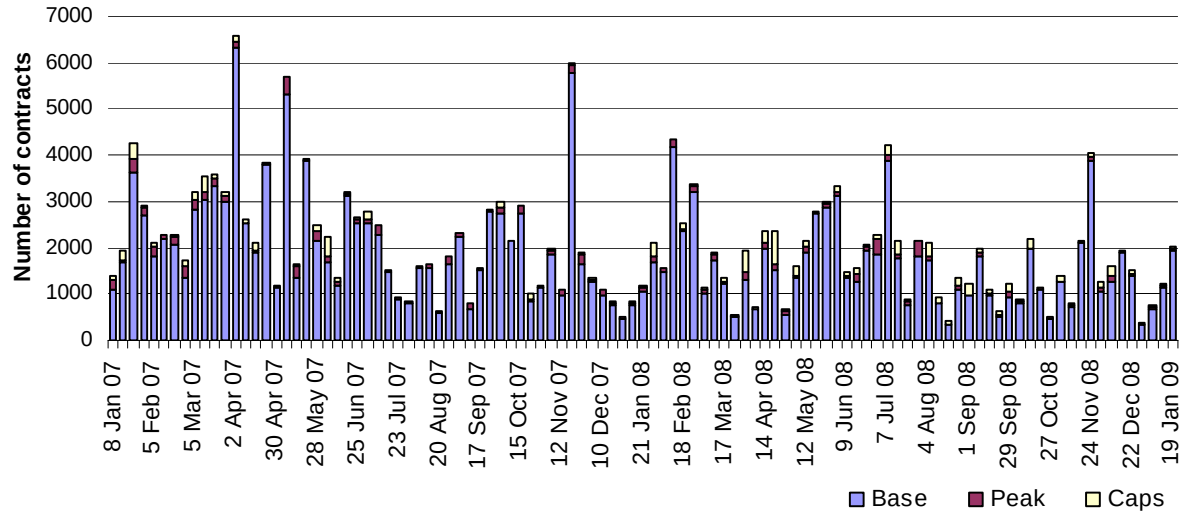
Figure 4: $300 cap contract prices ($/MWh)

	QLD		NSW		VIC		SA	
Q1 2009 price	28	-23%	17	19%	15	-10%	77	2%*
Calendar 2009	12	-14%*	10	7%*	8	-5%*	23	0%*

Source: d-cyphaTrade www.d-cyphatrade.com.au
* There were no trades

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

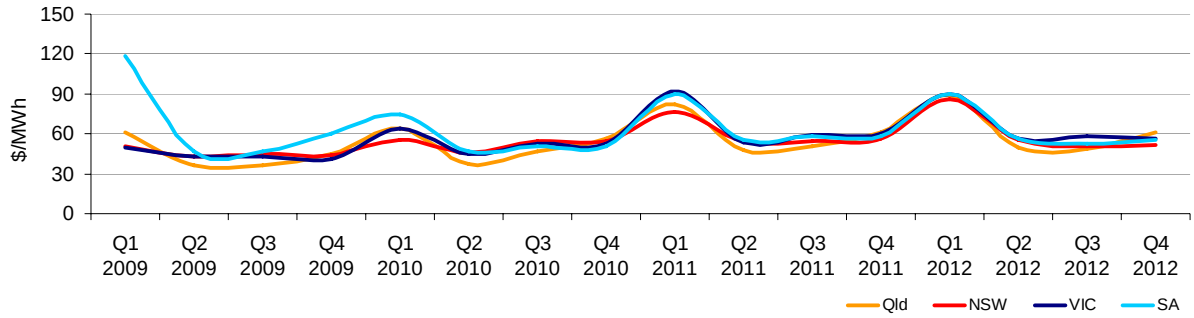


Source: d-cyphaTrade www.d-cyphatrade.com.au

[2] 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.

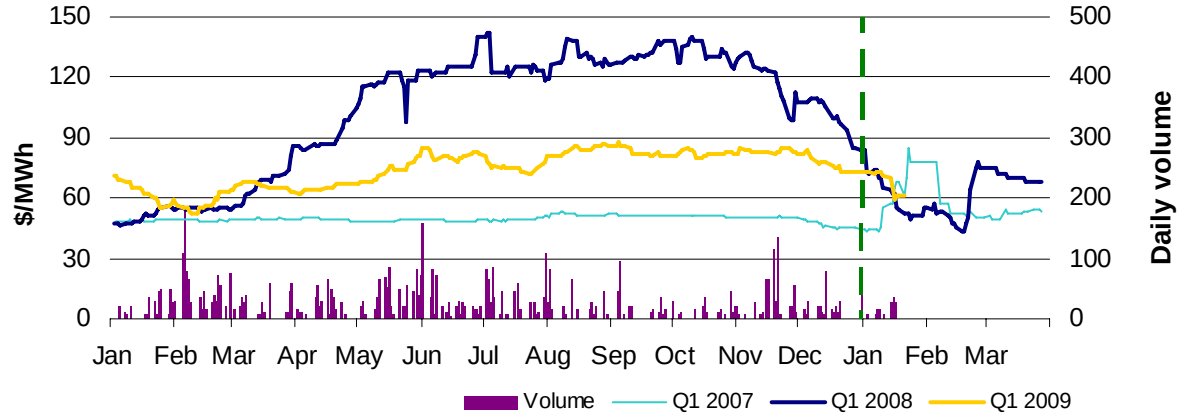
Figure 6: Quarterly base future prices 2009 - 2012



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

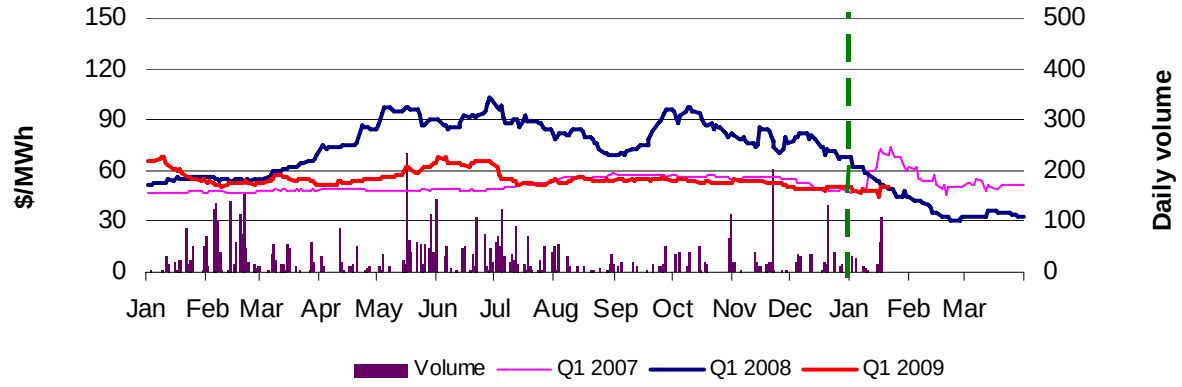
Figures 7-10 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 2009 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

Figure 7: Queensland Q1 2007, 2008 and 2009



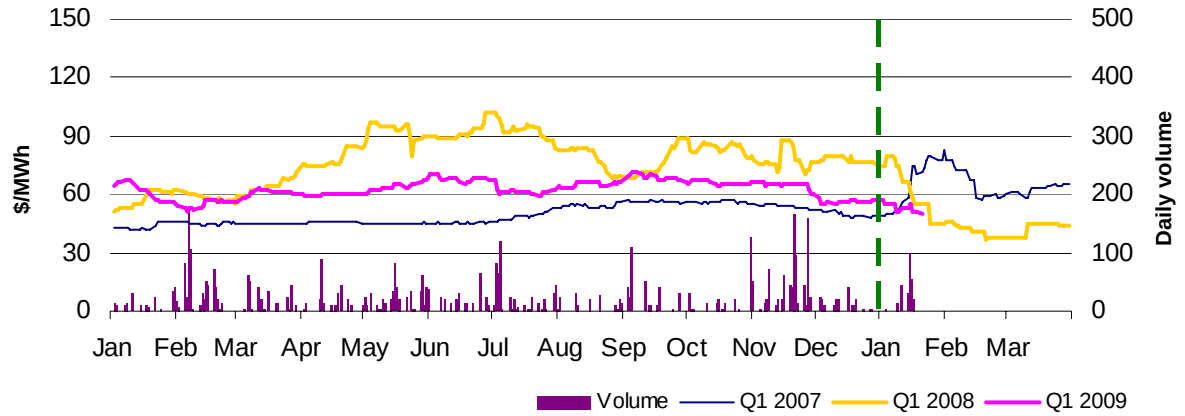
Source: d-cyphaTrade www.d-cyphatrade.com.au

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



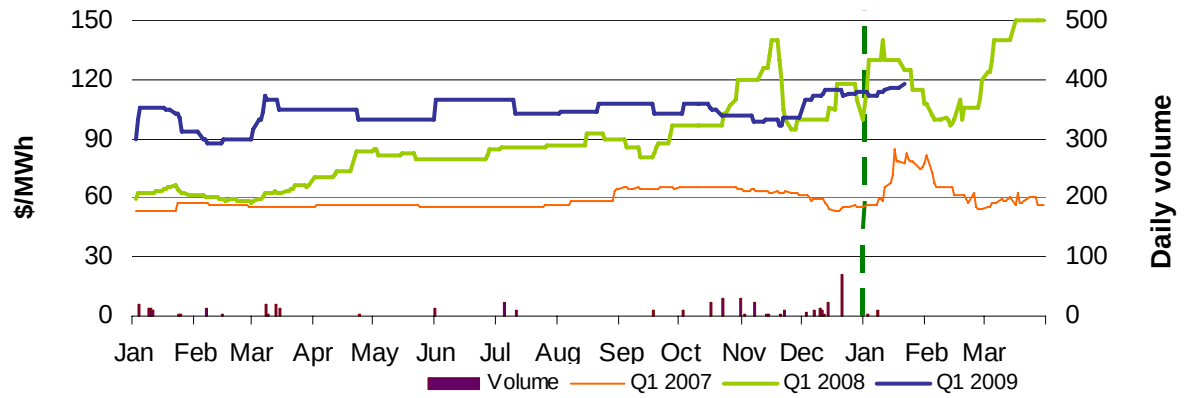
Source: d-cyphaTrade www.d-cyphatrade.com.au

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 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 147 trading intervals where actual prices significantly varied from forecasts[3] throughout the week. This compares to the weekly average in 2008 of 130 counts. Reasons for these variances are summarised in Figure 11[4].

Figure 11: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
% of total above forecast	7%	66%	0%	2%
% of total below forecast	20%	5%	0%	0%

[3] 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.

[4] The table summarises (as a percentage) the number of times when the actual price differs significantly from the forecast price four or twelve hours ahead and the major reason for that variation. The reasons are classified as availability (which means that there is a change in the total quantity or price offered for generation), demand forecast inaccuracy, changes to network capability or as a combination of factors (when there is not one dominant reason). An instance where both twelve and four hour ahead forecasts differ significantly from the actual price will be counted as two variations.

Demand and bidding patterns

The AER reviews demand, network limitations and generator bidding as part of its market monitoring to better understand the drivers behind price variations. Figure 12 shows changes to the offer price and available capacity of generation in each region for the peak periods only[5]. For example, in Queensland 225 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	-225	172	-252	-15
New South Wales	1105	132	1138	605
Victoria	-102	-115	133	686
South Australia	209	-46	270	327
Tasmania	190	-84	68	-8
Total	1,177	59	1,357	1,595

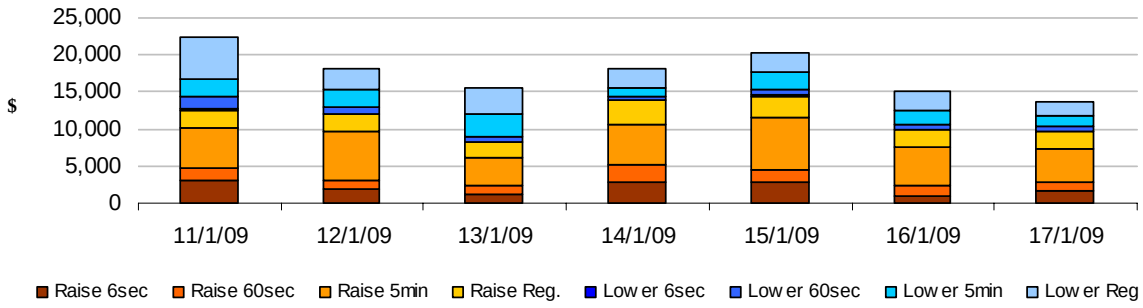
Ancillary services market

The total cost of frequency control ancillary services on the mainland for the week was $91 000 or less than one per cent of turnover in the energy market.

The total cost of ancillary services in Tasmania for the week was $32 000 or less than three per cent of turnover in the energy market in Tasmania

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

Figure 13: Daily frequency control ancillary service cost



Australian Energy Regulator
January 2009

[5] Peak period is defined as between 7 am and 10 pm on weekdays, which aligns with the SFE contract definition.

Detailed Market Analysis

AUSTRALIAN ENERGY REGULATOR

11 – 17 January 2009

New South Wales: There were four occasions where the spot price in New South Wales was greater than three times the New South Wales weekly average price of $87/MWh.

Thursday, 15 January

12:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1853.40	46.48	60.00
Demand (MW)	13 238	12 341	12 347
Available capacity (MW)	13 339	13 865	13 335
12:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	636.22	63.28	64.80
Demand (MW)	13 208	12 562	12 569
Available capacity (MW)	13 493	13 615	13 015
2:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	5210.57	119.40	89.69
Demand (MW)	13 567	13 267	13 065
Available capacity (MW)	13 666	13 859	13 415
2:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	3255.29	8452.76	119.40
Demand (MW)	13 518	13 643	13 131
Available capacity (MW)	13 533	13 906	13 475

Conditions at the time saw demand up to 900 MW greater than forecast driven by high temperatures in Sydney and available capacity up to 530 MW less than forecast four hours ahead.

On the day, the spot price exceeded $5000/MWh for the 2 pm trading interval. 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.

Queensland: There were five occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of $51/MWh.

Thursday, 15 January

12:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	199.20	43.72	54.96
Demand (MW)	7269	7280	7233
Available capacity (MW)	9489	9390	9405
1:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	156.61	144.92	64.79
Demand (MW)	7459	7454	7346
Available capacity (MW)	9590	9365	9403
2:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1878.26	113.20	85.54
Demand (MW)	7524	7473	7416
Available capacity (MW)	9598	9306	9403
2:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	2374.54	318.65	116.12
Demand (MW)	7496	7511	7433
Available capacity (MW)	9612	9452	9403
3:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	234.93	318.65	116.12
Demand (MW)	7512	7541	7440
Available capacity (MW)	9640	9486	9403

Conditions at the time saw demand and available capacity close to forecast.

From around 11 am there was a 400 MW increase compared to forecast for flows across QNI into New South Wales, as a result of higher than forecast demand in New South Wales. Queensland was experiencing a tight demand – supply situation and high priced generation was dispatched.

Over several rebids from 10.14 am, Stanwell Corporation rebid 140 MW of capacity across its portfolio from prices below $145/MWh to prices above $9300/MWh. The reasons given were “Price materially greater than predisp::change MW distrib”, “Manage transmission constraint::change MW distrib” and “ Extend previous bid::change avail/MW distrib”.

Over two rebids at 10.59 am and 11.53 am, Millmerran Energy Trader rebid 170 MW of capacity at Millmerran units one and two from prices below $10/MWh to prices above $9700/MWh. The rebid reasons given were “NSW Demand higher than PD::Adj MW distribution” and “QNI Constraint :: Change MW Distribution”.

There was no other significant rebidding.

Victoria: There were four occasions where the spot price in Victoria was greater than three times the Victoria weekly average price of $41/MWh.

Tuesday, 13 January

2:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	127.99	45.73	50.65
Demand (MW)	8309	8284	8257
Available capacity (MW)	9812	10 063	10 052
4:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	336.46	62.13	48.23
Demand (MW)	8613	8464	8451
Available capacity (MW)	9204	9964	10 047

Conditions at the time saw demand up to 150 MW greater than forecast and available capacity up to 760 MW less than forecast four hours ahead.

From 10.33 am, over several rebids, Yallourn reduced the available capacity across its portfolio by 150 MW, all of which was priced below $5/MWh. The reasons given were "Plant conditions::Adjust availability", "Mill problems – Adjust availability" and "Capacity adjustment due to plant conditions".

At 2.25 pm, Loy Yang unit three tripped. As a result up to 567 MW of capacity was rebid unavailable, all of which was priced below $20/MWh. The unit returned to service at 4.05 pm at 300 MW.

There was no other significant rebidding.

Thursday, 15 January

12:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	142.59	47.13	57.45
Demand (MW)	6455	6551	6557
Available capacity (MW)	9039	9171	9600
2:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	122.94	68.63	63.56
Demand (MW)	6579	6703	6704
Available capacity (MW)	9598	9608	9560

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

At 7.11 am, International Power reduced the available capacity across Loy Yang B units one and two by 420 MW, 410 MW of which was priced below $20/MWh. The reason given was "Adjust coal offloading profile".

Over numerous rebids from 7.54 am, LYMMCO shifted 735 MW of capacity at Loy Yang A, from prices below $90/MWh to prices above $4600/MWh. The reasons given all related to coal issues.

There was no other significant rebidding.

South Australia: There were 11 occasions where the spot price in South Australia was greater than three times the South Australia weekly average price of $441/MWh.

Tuesday, 13 January

2:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	7783.73	301.98	1000.00
Demand (MW)	2625	2577	2467
Available capacity (MW)	3245	3155	3105
2:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9799.47	938.08	9999.09
Demand (MW)	2653	2620	2512
Available capacity (MW)	3239	3166	3096
3:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9399.92	3705.55	9999.09
Demand (MW)	2663	2706	2554
Available capacity (MW)	3226	3168	3094
3:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9998.93	3705.55	9999.70
Demand (MW)	2675	2738	2609
Available capacity (MW)	3221	3155	3089
4:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	8550.72	8800.74	9999.77
Demand (MW)	2697	2754	2634
Available capacity (MW)	3254	3155	3083
4:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9999.09	9999.09	9999.70
Demand (MW)	2733	2784	2664
Available capacity (MW)	3243	3152	3159
5:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9799.35	9999.09	9999.76
Demand (MW)	2726	2788	2687
Available capacity (MW)	3248	3140	3159
5:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	9000.47	9999.09	9999.75
Demand (MW)	2707	2791	2692
Available capacity (MW)	3233	3142	3160
6:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	3334.61	1000.00	78.26
Demand (MW)	2649	2764	2678
Available capacity (MW)	3117	3171	3158
6:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1718.43	1000.00	63.60
Demand (MW)	2616	2671	2656
Available capacity (MW)	3132	3155	3150
7:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	1367.59	1000.00	55.77
Demand (MW)	2583	2605	2570
Available capacity (MW)	3075	3089	3074

Near-record demand brought about by high temperatures coincided with the spot price exceeding $5000/MWh for the seven trading intervals from 2.30 pm to 5.30 pm. 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 17 occasions where the spot price in Tasmania was greater than three times the Tasmania weekly average price of $63/MWh.

Tuesday, 13 January

4:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	310.43	59.17	46.55
Demand (MW)	1101	1150	1138
Available capacity (MW)	1973	1973	1973

Conditions at the time saw demand and available capacity close to forecast.

The spot price in Victoria reached $336/MWh at 4 pm. This saw flows out of Tasmania into Victoria across Basslink increase significantly from 182 MW at 3.30 pm to 376 MW at 4 pm. In order to meet the increased flows across Basslink higher priced generation was dispatched in Tasmania, resulting in an increase in the spot price in Tasmania to align with that in Victoria.

There was no significant rebidding.

Saturday, 17 January

5:30 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	236.97	29.28	29.28
Demand (MW)	1039	993	968
Available capacity (MW)	2039	2039	2039
6:00 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	208.91	90.83	29.28
Demand (MW)	1041	1017	985
Available capacity (MW)	2039	2039	2039
6:30 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	240.37	91.54	29.28
Demand (MW)	1066	1052	1011
Available capacity (MW)	2039	2039	2039
8:30 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	242.64	101.70	29.28
Demand (MW)	1212	1201	1127
Available capacity (MW)	2039	2039	2039
9:00 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.29	143.04	29.30
Demand (MW)	1200	1217	1137
Available capacity (MW)	2039	2039	2039
9:30 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	143.12	29.28
Demand (MW)	1184	1220	1137
Available capacity (MW)	2029	2039	2039
10:00 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	143.10	30.17
Demand (MW)	1155	1213	1205
Available capacity (MW)	2018	2039	2039

Saturday, 17 January (cont)

10:30 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	143.10	30.63
Demand (MW)	1117	1196	1189
Available capacity (MW)	2018	2039	2039
11:00 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	143.08	29.30
Demand (MW)	1102	1184	1174
Available capacity (MW)	2018	2039	2039
11:30 am	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	143.08	29.28
Demand (MW)	1099	1161	1151
Available capacity (MW)	2018	2039	2039
12:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	143.08	29.29
Demand (MW)	1091	1143	1135
Available capacity (MW)	2018	2039	2039
12:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	207.63	29.30
Demand (MW)	1079	1122	1115
Available capacity (MW)	2018	2039	2039
1:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	143.08	30.17
Demand (MW)	1063	1106	1098
Available capacity (MW)	2018	2039	2039
1:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.25	143.08	29.83
Demand (MW)	1049	1094	1087
Available capacity (MW)	2018	2039	2039
2:00 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.25	29.28	29.28
Demand (MW)	1044	1082	1076
Available capacity (MW)	2018	2018	2039
2:30 pm	**Actual**	**4 hr forecast**	**12 hr forecast**
Price ($/MWh)	277.28	29.28	29.28
Demand (MW)	1046	1056	1080
Available capacity (MW)	2018	2018	2039

Conditions at the time saw demand and available capacity close to forecast.

Early in the morning there was a forecast reduction in imports into Tasmania caused by a constraint managing the outage of a Hazelwood transformer. In response Hydro Tasmania rebid up to 1200 MW of capacity across its portfolio from prices below $275/MWh to prices above $1500/MWh. The reasons given were “Constraint management” and “Hydrological optimisation”

There was no other significant rebidding.

Detailed NEM Price and Demand Trends

AUSTRALIAN ENERGY REGULATOR

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

Financial year	QLD	NSW	VIC	SA	TAS
2008-09 ($/MWh) YTD	38	46	38	52	44
2007-08 ($/MWh) YTD	55	50	53	76	55
Change	-30%	-7%	-28%	-32%	-19%
2007-08 ($/MWh)	58	44	51	101	57

Table 2: NEM turnover

Financial year	NEM Turnover* ($, billion)	Energy (TWh)
2008-09 YTD	$4.9	115
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 MTD	40	57	33	215	49	0.53
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 19 January

	QLD		NSW		VIC		SA	
Q1 2009	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 12 Jan ($/MW)	70	125	49	75	53	92	116	200
Price on 19 Jan ($/MW)	61	105	50	75	50	92	118	200
Open interest on 19 Jan	2450	248	2726	211	2420	474	267	20
Traded in the last week (MW)	86	10	185	0	175	5	0	0
Traded since 1 Jan 08	5945	529	6309	260	4999	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	-395	-1319	-85	-79	-95	-1973
MW Priced $20 to $50	425	1103	164	75	-28	1740