

WEEKLY ELECTRICITY MARKET ANALYSIS



AUSTRALIAN ENERGY
REGULATOR

9 January - 15 January 2011

Summary

For the second consecutive week, increased demand (following the holiday period) saw price increases in all mainland regions with weekly average spot prices ranging from \$29/MWh in South Australia to \$39/MWh in Queensland. The average price in Tasmania of \$26/MWh was unchanged from the previous week.

A single five-minute dispatch price at close to the price floor occurred in Tasmania, South Australia and Victoria at 4.15 am on Wednesday. The price was not forecast and occurred following a rebid by Hydro Tasmania at 4.04 am. The rebid shifted 628 MW of capacity across 8 units from \$-1/MWh to close to the price floor. The reason for the rebid was “0403A constraint impact different to forecast.”

Spot market prices

Figure 1 sets out the volume weighted average (VWA) prices for the week 9 January to 15 January 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 9 Jan - 15 Jan 2011	39	36	30	29	26
% change from previous week*	39	27	13	4	0
10/11 financial YTD	22	27	23	26	32
% change from 09/10 financial YTD **	-44	-56	-37	-73	15

*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.

Longer term market trends are attached in Appendix A¹.

Financial markets

Figures 2 to 9 show futures contract² prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 17 January 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 changes³ from the previous 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.

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

	QLD		NSW		VIC		SA	
Calendar Year 2011	30	-4%	35	-5%	30	-8%	33	-9%
Calendar Year 2012	32*	-2%	40*	-2%	34*	-6%	37	-7%
Calendar Year 2013	39	0%	49	0%	46	0%	69	0%
Three year average	34	-2%	41	-2%	37	-4%	47	-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 change⁴ from the previous week.

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

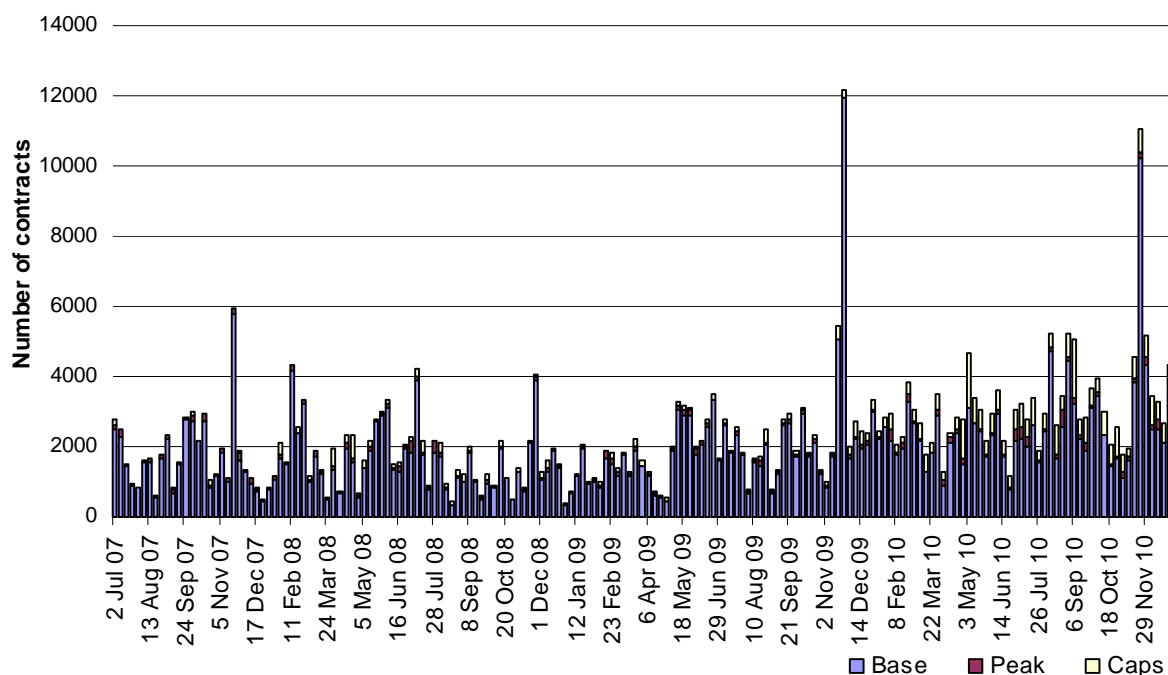
	QLD		NSW		VIC		SA	
Q1 2011 (% change)	9*	-27%	9*	-36%	11*	-38%	22	-12%
2011 (% change)	5	-15%	8	-18%	5	-25%	9	-8%

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.

Figure 4: Number of exchange traded contracts per week

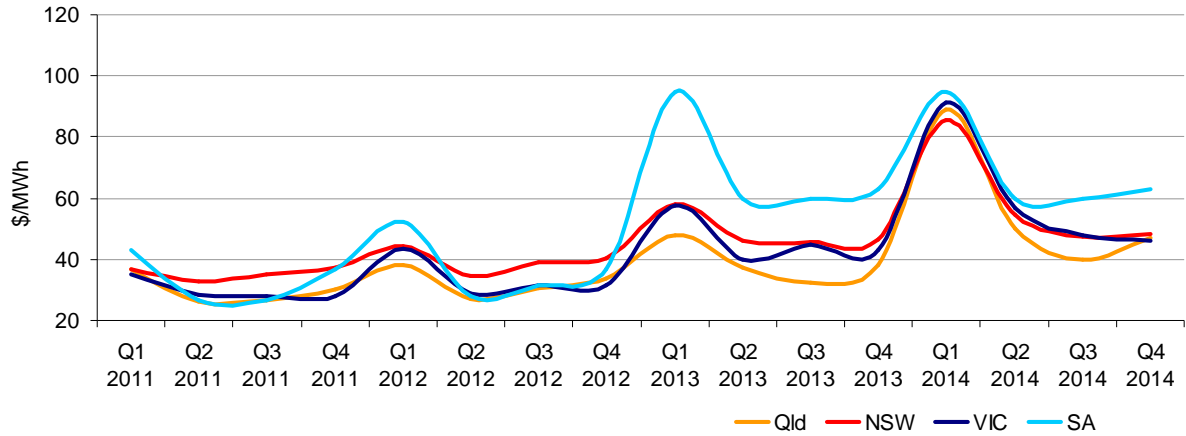


Source: d-cyphaTrade www.d-cyphatrade.com.au

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

⁴ Calculated on prices prior to rounding.

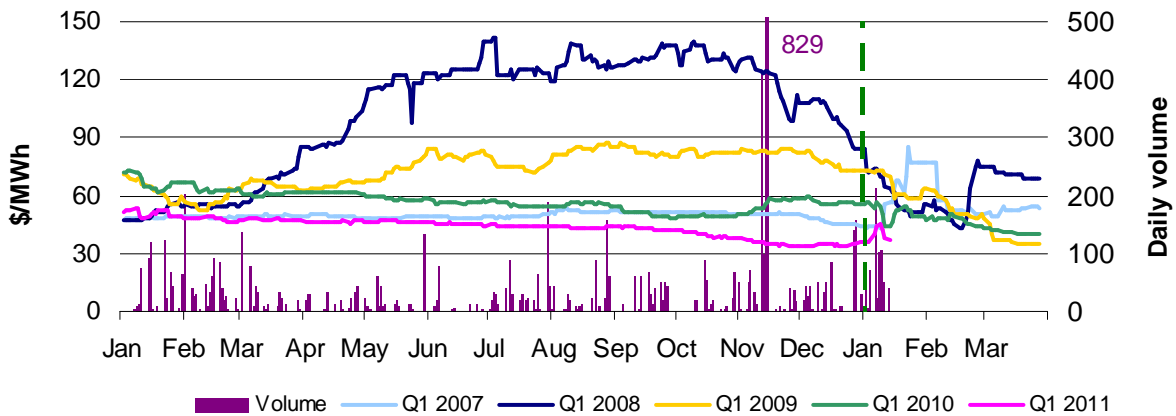
Figure 5: Quarterly base future prices Q4 2010 – Q4 2014



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

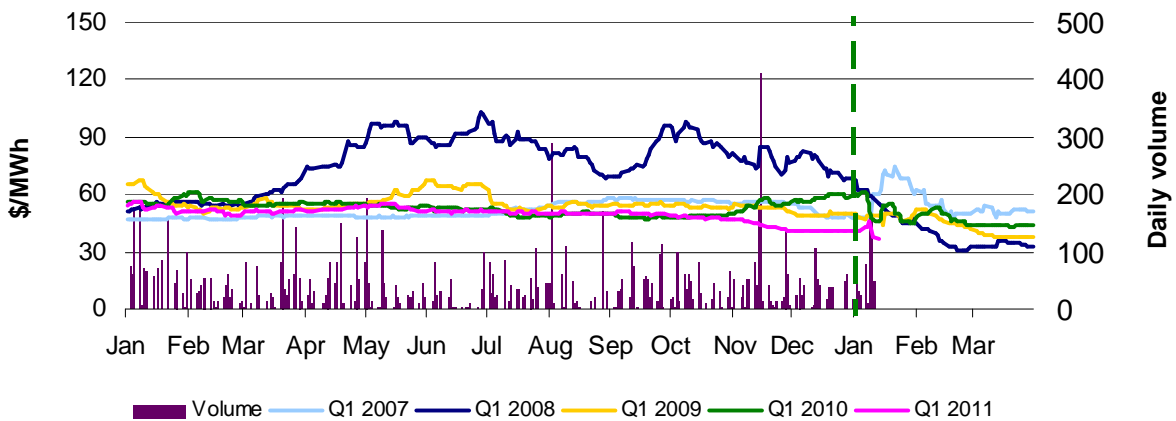
Figures 6-9 compare for each region the closing daily base contract prices for the first quarter of 2007, 2008, 2009, 2010 and 2011. Also shown is the daily volume of Q1 2011 base contracts traded. The vertical dashed line signifies the start of the Q1 period for which the contracts are being purchased. 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



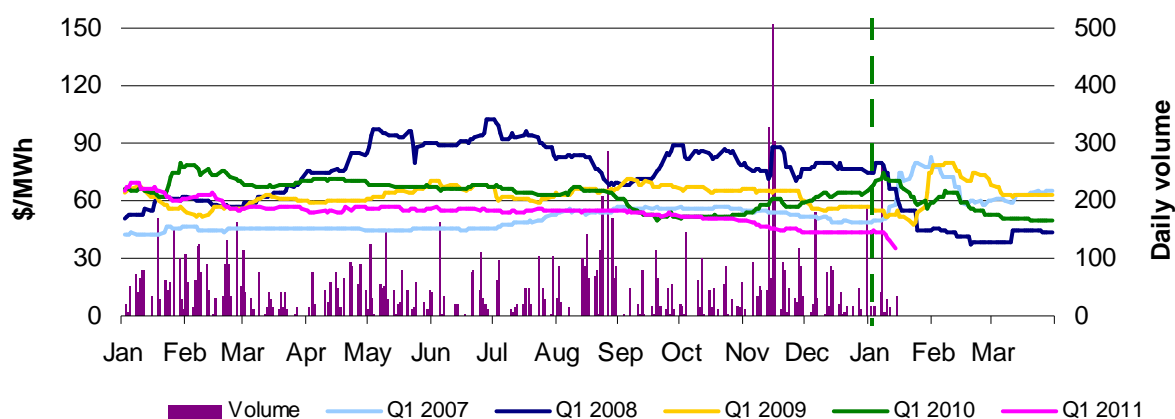
Source: d-cyphaTrade www.d-cyphatrade.com.au

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



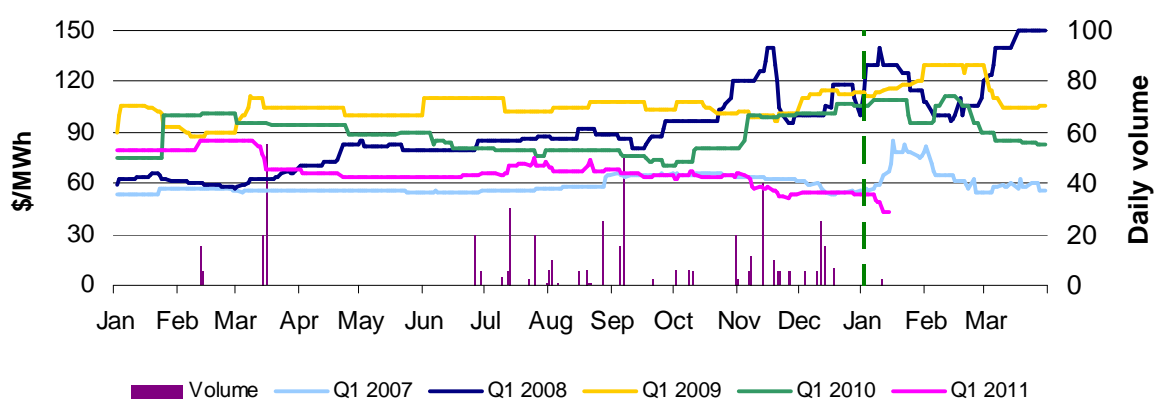
Source: d-cyphaTrade www.d-cyphatrade.com.au

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 107 trading intervals throughout the week where actual prices varied significantly from forecasts⁵. 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 10⁶.

Figure 10: Reasons for variations between forecast and actual prices

	Availability	Demand	Network	Combination
% of total above forecast	11	39	0	0
% of total below forecast	16	33	0	1

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.

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 periods⁷. For example, in Queensland 376 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 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	-376	-51	-244	50
NSW	257	573	467	1226
VIC	229	348	118	700
SA	103	66	139	51
TAS	459	-195	-97	-14
TOTAL	672	741	383	2013

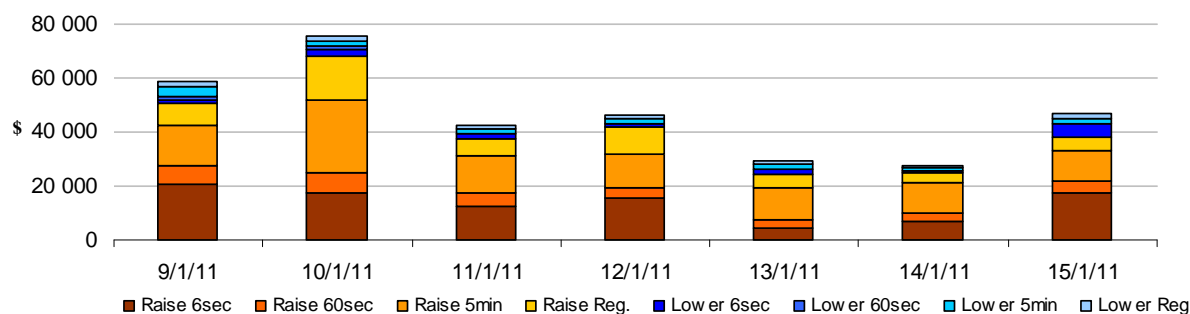
Ancillary services market

The total cost of frequency control ancillary services (FCAS) on the mainland for the week was \$226 000 or less than one per cent of energy turnover on the mainland.

The total cost of FCAS in Tasmania for the week was \$101 000 or over two 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



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

Detailed NEM Price and Demand Trends

for Weekly Market Analysis
9 January - 15 January 2011



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

Financial year	QLD	NSW	VIC	SA	TAS
2010-11 (\$/MWh) YTD	22	27	23	26	32
2009-10 (\$/MWh) YTD	39	62	37	98	28
Change*	-44%	-56%	-37%	-73%	15%
2009-10 (\$/MWh)	37	52	42	82	30

Table 2: NEM turnover

Financial year	NEM Turnover** (\$, billion)	Energy (TWh)
2010-11 (YTD)	\$2.754	110
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)
Sep-10	22	24	23	27	21	0.386
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(MTD)	33	31	28	28	25	0.223
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 17 January

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2011								
Price on 10 Jan (\$/MW)	40	55	43	63	44	75	54	100
Price on 17 Jan (\$/MW)	37	55	37	54	35	55	43	80
Open interest on 17 Jan	1814	163	2820	339	2569	215	217	9
Traded in the last week (MW)	325	0	406	5	86	1	2	0
Traded since 1 Jan 10 (MW)	8461	248	10203	606	12149	414	482	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
November 10 with November 09						
MW Priced <\$20/MWh	-73	-20	777	227	994	1906
MW Priced \$20 to \$50/MWh	393	95	-524	-110	-663	-809
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 11 (MTD)						
MW Priced <\$20/MWh	-1173	-1209	-350	343	435	-1953
MW Priced \$20 to \$50/MWh	108	-108	82	137	-321	-101

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

** Estimated value