

2 november -8 novemb

Summary

Average spot prices on the mainland ranged from \$35/MWh in South Australia to \$44/MWh in Victoria. In Tasmania the spot price average \$63/MWh.

At 3 am on Friday, the Murraylink interconnector tripped while exporting around 150 MW to Victoria. At the same time, the Heywood interconnector was also exporting at its limit. This led to surplus generation in South Australia resulting in the spot price falling to -\$1000/MWh at 3.30 am.

In the financial markets, contract prices were similar to the previous week.

Spot market prices

Figure 1 sets out the volume weighted average prices for this week 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 2 – 8 November	42	41	44	35	63
Financial year to 8 November	38	53	42	41	46
% change from previous week*	-40%	-86%	-9%	-11%	2%
% change from year to date**	-39%	-2%	-21%	-25%	-20%

*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) for the last 18 months.





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Financial markets

Figures 3 to 10 show futures contract¹ prices traded on the Sydney Futures Exchange (SFE) as at close of trade on Monday 10 November. 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.

	Q	LD	N	SW	V	IC	S	A
Financial 2009-10	51	-2%	50	-1%	51	0%	55	0%
Financial 2010-11	59	0%	61	0%	63	0%	60	2%
Financial 2011-12	56	2%	50	0%	54	0%	52	6%
Three year average	55	0%	54	0%	56	0%	56	3%

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

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

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)

	Q	LD	N	SW	v	IC	S	6A
Q1 2009 price	44	-3%	18	0%	25	0%	65	0%
Calendar 2009	18	-3%	10	0%	11	0%	21	0%
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Source: d-cyphaTrade <u>www.d-cyphatrade.com.au</u>

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 <u>www.d-cyphatrade.com.au</u>

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¹ Futures contracts on the SFE are listed by d-cyphaTrade (<u>www.d-cyphatrade.com.au</u>). 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 2008 - 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 <u>www.d-cyphatrade.com.au</u>

Source: d-cyphaTrade <u>www.d-cyphatrade.com.au</u>

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 136 trading intervals where actual prices significantly varied from forecasts² throughout the week. This compares to the weekly average in 2007 of 125 counts. Reasons for these variances are summarised in Figure 11³.

Figure 11: Reasons for variations between forecast and actual prices	Figure 11:	Reasons for	variations be	etween forecast	and actual	prices
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	Availability	Demand	Network	Combination
Price is higher than forecast	1%	59%	0%	3%
Price is lower than forecast	32%	4%	2%	0%

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

² 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.

³ 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 only⁴. For example, in Queensland 21 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.

\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	-21	136	321	367
New South Wales	1,067	-774	537	-401
Victoria	-320	-34	-90	-368
South Australia	-148	108	-95	-51
Tasmania	15	0	59	60
Total	593	-564	732	-393

Figure 12: Changes	in available generation	compared to the	previous week du	ring peak times
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Ancillary services market

The total cost of ancillary services on the mainland for the week was \$165 000 or less than one per cent of turnover in the energy market.

The total cost of ancillary services in Tasmania for the week was \$42 000 or less one 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 November 2008

⁴ Peak period is defined as between 7 am and 10 pm on weekdays, which aligns with the SFE contract definition.

Detailed Market Analysis

2 November – 8 November 2008

Queensland: There were four occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of \$42/MWh.

AUSTRALIAN ENERGY

Friday, 7 November

11:00 am	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	162.72	39.01	39.01
Demand (MW)	7634	7339	7198
Available capacity (MW)	9306	9658	9740
1:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	151.31	48.24	43.52
Demand (MW)	7759	7399	7391
Available capacity (MW)	9294	9630	9738
1:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	191.09	48.55	43.52
Demand (MW)	7792	7403	7396
Available capacity (MW)	9294	9626	9738
2:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	839.57	50.92	43.51
Demand (MW)	7741	7420	7385
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Conditions at the time saw demand around 400 MW higher than forecast four hours ahead and at its highest level since winter. Available capacity was 350 MW lower than forecast four hours ahead. Network constraints saw imports into Queensland limited to around 75 MW.

At 9.17 am and 9.50 am Tarong Energy reduced the availability of Tarong units three and four respectively by 160 MW each. The reason given for both rebids related to coal supply limitations.

At 10.51 am Stanwell Corporation rebid 250 MW of capacity across its Gladstone units from prices between \$25/MWh and \$420/MWh to above \$9000/MWh. The reason given was "Material change in market conditions::change::MW Distrib". This rebid was extended throughout the day, one of which was at 1.22 pm which gave the reason "Extend previous bid::change avail/MW distrib".

At 1.24 pm CS Energy rebid 204 MW of capacity at Swanbank E from prices of \$237/MWh to above \$7900/MWh. The reason given was "Portfolio optimisation".

These rebids were effective from 1.35 pm when the dispatch price reached \$4700/MWh. At 1.40 pm, a reduction in demand of 110 MW saw prices returned to previous levels.

There was no other significant rebidding.

Appendix B 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	38	53	42	41	46
2007-08 (\$/MWh) YTD	63	54	53	54	57
Change	-39%	-2%	-21%	-25%	-20%
2007-08 (\$/MWh)	58	44	51	101	57

Table 2: NEM turnover

Financial year	NEM Turnover* (\$, billion)	Energy (TWh)
2008-09 YTD	\$3.5	76
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							Turnover
average (\$/MWh)	QLD	NSW	SNOWY	VIC	SA	TAS	(\$, billion)
Jul-08	40	44	-	46	48	31	0.82
Aug-08	37	42	-	42	44	56	0.79
Sep-08	32	37	-	38	34	46	0.61
Oct-08	43	94	-	41	37	47	1.05
Nov-08 MTD	42	42	-	44	37	64	0.19
Q3 2008	36	41	-	42	42	44	2.23
Q3 2007	56	59	-	60	62	65	3.17
Change	-35%	-31%	-	-30%	-31%	-32%	

Table 4: ASX energy futures contract prices at 10 November

	QI	_D	NS	SW	V	IC	S	Α
Q1 2009	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Price on 03 Nov (\$/MW)	84	150	54	89	66	117	102	197
Price on 10 Nov (\$/MW)	83	150	54	89	65	117	99	197
Open interest on 10 Nov	2451	168	2509	171	2022	459	207	15
Traded in the last week (MW)	31	15	41	0	105	20	22	15
Traded since 1 Jan 08	4953	409	5340	215	3818	707	337	15
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	SNOWY*	VIC	SA	TAS	NEM
September 08 with September 07							
MW Priced <\$20	913	717	-	-84	137	147	1829
MW Priced \$20 to \$50	189	-401	-	186	187	37	199
October 08 with October 07							
MW Priced <\$20	248	-230	-	-138	112	-356	-364
MW Priced \$20 to \$50	357	-325	-	150	45	-36	191
November 08 with November 07							
MW Priced <\$20	-584	-1402	-	-161	116	94	-1900
MW Priced \$20 to \$50	-403	1,998	-	88	58	-160	1140

*For comparative purposes Snowy generation for July 2007 and 2008 has been incorporated into New South Wales and Victoria