

## Electricity spot prices above \$5000/MWh

31 January – 2 February  
New South Wales



AUSTRALIAN ENERGY  
REGULATOR

### **Introduction**

The AER is required to publish a report whenever the electricity spot price exceeds \$5000/MWh.<sup>1</sup> The report:

- describes the significant factors contributing to the spot price exceeding \$5000/MWh, including withdrawal of generation capacity and network availability;
- assesses whether rebidding contributed to the spot price exceeding \$5000/MWh;
- identifies the marginal scheduled generating units; and
- identifies all units with offers for the trading interval equal to or greater than \$5000/MWh and compares these dispatch offers to relevant dispatch offers in previous trading intervals.

### **Summary**

From 31 January to 2 February, the spot price in New South Wales exceeded \$5000/MWh on 12 occasions, reaching a maximum of \$12 136/MWh at 4 pm on 1 February.

On Monday 31 January, prices were as forecast. On Tuesday 1 February, prices were greater than forecast and on Wednesday 2 February prices were generally close to forecast. On all three days demand was very high due to high temperatures, reaching a new record on Tuesday. Demand was generally greater than forecast.

Rebidding by Macquarie Generation and Eraring contributed to the high prices.

The sustained high prices over the three days saw the cumulative price<sup>2</sup> in New South Wales increase significantly, reaching \$151 025 on Wednesday. Further high prices later in the week saw the cumulative price reach \$168 961 at 2 pm on Sunday 6 February. Although the cumulative price threshold (CPT) was not breached, the cumulative forecast prices on 2 February for 3 February and at other times later in the week were close to the CPT.

The events in New South Wales were reflected in neighbouring regions, with prices above \$5000/MWh in Victoria and Queensland on 1 February and in Queensland on 2 February. The AER has published separate reports covering the events in Victoria and Queensland.

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<sup>1</sup> This requirement is set out in clause 3.13.7 (d) of the National Electricity Rules.

<sup>2</sup> The cumulative price is a weekly rolling sum of spot prices. If the cumulative price exceeds the cumulative price threshold (CPT, which is \$187 500) then an administered pricing period occurs, which reduces the price cap to \$300/MWh (the administered price cap or APC) for the remainder of the trading day. If at the end of the trading day the cumulative weekly price remains above the CPT then the administered pricing period continues, otherwise the APC is removed.

## Actual and forecast demand

Following a high of 34 degrees on 30 January, the temperature in western Sydney exceeded 35 degrees on all three days of high prices, reaching a maximum of 41 degrees on 1 February. Accordingly, New South Wales demand was very high over the three days, reaching a new record of 14 598 MW at 4.30 pm on 1 February<sup>3</sup>.

Figures 1 to 3 compare the actual demand, available capacity and spot price in New South Wales with that forecast by AEMO 4 and 12 hours ahead of dispatch from 31 January to 2 February.

*Figure 1: Actual and forecast demand, spot price and available capacity, 31 January*

<b>4 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	13 827	13 786	13 581
Spot Price (\$MW/h)	6020	6483	6608
Available capacity (MW)	13 695	13 658	13 828

For 31 January demand, price and available capacity were all close to forecast.

*Figure 2: Actual and forecast demand, spot price and available capacity, 1 February*

<b>1.30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	13 715	13 659	13 649
Spot Price (\$MW/h)	5040	365	297
Available capacity (MW)	14 032	14 152	14 097
<b>3 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 040	13 954	13 963
Spot Price (\$MW/h)	7080	416	327
Available capacity (MW)	13 973	14 052	14 097
<b>3.30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 323	14 031	14 049
Spot Price (\$MW/h)	12 073	6569	332
Available capacity (MW)	13 901	14 052	14 097
<b>4 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 526	14 021	14 033
Spot Price (\$MW/h)	12 136	6550	333
Available capacity (MW)	13 669	14 052	14 097
<b>4.30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 598	14 115	13 967
Spot Price (\$MW/h)	9545	7604	327
Available capacity (MW)	13 615	14 052	14 097

For 1 February demand was up to 505 MW greater than forecast 4 hours ahead and 631 MW greater than forecast 12 hours ahead. Available capacity was lower than forecast by up to 437 MW 4 hours ahead and 482 MW 12 hours ahead.

<sup>3</sup> 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.

**Figure 3: Actual and forecast demand, spot price and available capacity, Wednesday 2 February**

<b>2 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	13 924	13 994	13 720
Spot Price (\$/MWh)	5582	5022	321
Available capacity (MW)	13 869	13 918	14 072
<b>2.30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 035	14 049	13 773
Spot Price (\$/MWh)	5831	5022	321
Available capacity (MW)	13 882	13 918	14 072
<b>3 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 215	14 132	13 854
Spot Price (\$/MWh)	9173	7502	488
Available capacity (MW)	13 873	13 948	14 072
<b>3.30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 387	14 203	13 951
Spot Price (\$/MWh)	10 417	7604	11 744
Available capacity (MW)	13 868	13 948	14 072
<b>4 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 432	14 331	14 097
Spot Price (\$/MWh)	10 244	8934	11 953
Available capacity (MW)	13 851	13 948	14 072
<b>4.30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Demand (MW)	14 223	14 402	14 070
Spot Price (\$/MWh)	8773	9958	517
Available capacity (MW)	13 840	13 942	14 072

For 2 February demand was close to forecast 4 hours ahead but up to 436 MW greater than forecast 12 hours ahead. Available capacity was close to forecast 4 hours ahead but up to 232 MW lower than forecast 12 hours ahead. Prices were generally close to forecast 4 hours ahead but significantly higher than forecast 12 hours ahead.

## **Generator offers and rebidding**

### **31 January**

Around 1340 MW of capacity (or 10 per cent of all offers) was offered at prices above \$5000/MWh through initial (day ahead) offers. Rebids by Origin, Delta Electricity and Snowy Hydro shifted 1020 MW of this high priced capacity into lower prices.

At 2.55 pm Macquarie Generation rebid 320 MW of available capacity at Bayswater from prices below \$75/MWh to above \$11 400/MWh. The reason given was “1450A unit trip in Vic – NSW to Vic i/c constraint sth”.

### **1 February**

Around 1330 MW of capacity (or 10 per cent of all offers) was offered at prices above \$5000/MWh through initial (day ahead) offers. Rebids by Snowy Hydro shifted up to 445 MW of this high priced capacity into lower prices.

At 9.15 am Macquarie Generation rebid 335 MW of capacity across its portfolio from prices below \$5000/MWh (the majority was priced below \$80/MWh) to above \$7100/MWh. The reason given was “0905A revised weather and changed AEMO forecasts”. A further rebid at 2.17 pm shifted 190 MW of capacity from below \$5000/MWh to above \$11 000/MWh. The reason given was “1415A Vic to NSW flow > than PD and Vic demand < than PD”.

At 12.41 am Eraring Energy rebid up to 200 MW of capacity across Eraring units one and four from prices below \$35/MWh to above \$12 200/MWh. The reason given was “1235A dispatch price less than expectation”.

At 3.33 pm, effective from 3.40 pm, Delta Electricity reduced the availability of Vales Point power station by 280 MW (all of which was priced above \$12 200/MWh). The reason given was “1530P lake temperature management – ET 4hrs::capacity limit”.

## **2 February**

Around 1630 MW of capacity (or just over 10 per cent of all offers) was offered at prices above \$5000/MWh through initial (day ahead) offers. Rebids by Origin, Delta Electricity and Snowy Hydro shifted around 900 MW of this high priced capacity into lower prices.

At 8.46 am Macquarie Generation rebid 480 MW of available capacity across its portfolio from prices below \$270/MWh to above \$7100/MWh. The reason given was “0835A AEMO forecast@8:30>forecast yesterday”.

At 1.24 pm, for the 2 pm trading interval, Eraring Energy rebid 120 MW of available capacity at Eraring units one and four from prices below \$25/MWh to above \$12 200/MWh. The reason given was “1318A predispach price higher than dispatch price 1320”.

There was no other significant rebidding.

The generators involved in setting the price during the high-price periods, and how that price was determined by the market systems is detailed in **Appendix A**. For 34 of 55 dispatch intervals where the 5-minute price was above \$5000/MWh as a result of generation offers priced at above \$5000/MWh, Macquarie Generation set the price.

The closing bids for all participants in New South Wales with capacity priced at or above \$5000/MWh for the high-price periods are presented in **Appendix B**.

## Appendix A – Price setters for 31 January to 2 February 2011

The following table identifies for the trading intervals in which the spot price exceeded \$5000/MWh, each five minute dispatch interval price and the generating units involved in setting the energy price. This information is published by AEMO<sup>4</sup>. Also shown is the energy or FCAS offer price involved in determining the dispatch price together with the quantity of that service and the contribution to the total energy price. The 30-minute spot price is the average of the six dispatch interval prices.

### New South Wales – 4 pm 31 January

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
15:35	\$12 002.00	Macquarie Generation	BW04	Energy	\$12 002.00	1.00	\$12 002.00
15:40	\$362.81	Stanwell	GSTONE1	Energy	\$280.00	0.65	\$181.41
		Stanwell	GSTONE2	Energy	\$280.00	0.65	\$181.41
15:45	\$12 002.00	Macquarie Generation	BW04	Energy	\$12 002.00	1.00	\$12 002.00
15:50	\$8948.73	Delta Electricity	WW8	Energy	\$8946.29	1.00	\$8946.29
		Delta Electricity	VP5	Raise 5 min	\$5.00	0.61	\$3.06
		Delta Electricity	WW8	Raise 5 min	\$1.00	-0.61	-\$0.61
15:55	\$2529.41	Alinta Power	NPS1	Energy	\$12 199.00	0.25	\$3092.45
		Origin Energy	LADBROK1	Energy	-\$1000.00	0.28	-\$281.70
		Origin Energy	LADBROK2	Energy	-\$1000.00	0.28	-\$281.70
16:00	\$274.85	CS Energy	KPP_1	Energy	\$240.17	1.14	\$274.85
<b>Spot price</b>		<b>\$6020/MWh</b>					

### New South Wales – 1.30 pm 1 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
13:05	\$1064.21	Origin Energy	URANQ12	Energy	\$1064.21	1.00	\$1064.21
13:10	\$1063.15	Origin Energy	URANQ11	Energy	\$1063.15	1.00	\$1063.15
13:15	\$4994.00	Macquarie Generation	LD02	Energy	\$4994.00	1.00	\$4994.00
13:20	\$7706.00	Macquarie Generation	BW02	Energy	\$7706.00	1.00	\$7706.00
13:25	\$7604.00	Macquarie Generation	BW03	Energy	\$7604.00	1.00	\$7604.00
13:30	\$7808.00	Macquarie Generation	BW01	Energy	\$7808.00	1.00	\$7808.00
<b>Spot price</b>		<b>\$5040/MWh</b>					

### New South Wales – 3 pm 1 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
14:35	\$374.86	Tarong Energy	TNPS1	Energy	\$298.76	1.25	\$374.85
14:40	\$430.70	Origin Energy	URANQ14	Energy	\$321.07	5.35	\$1718.33
		Snowy Hydro	MURRAY	Energy	\$294.69	-4.39	-\$1294.81
		AGL Hydro	DARTM1	Energy	-\$1000.00	0.00	\$2.00
		AGL Hydro	MCKAY1	Energy	-\$1000.00	0.00	\$4.40
		AGL Hydro	WKIEWA1	Energy	-\$1000.00	0.00	\$0.40
		AGL Hydro	WKIEWA2	Energy	-\$1000.00	0.00	\$0.40
14:45	\$8669.77	Snowy Hydro	GUTHEGA	Energy	\$12 499.00	0.72	\$8953.03
		Snowy Hydro	UPPTUMUT	Energy	-\$1000.00	0.28	-\$283.70
14:50	\$8990.57	Snowy Hydro	MURRAY	Energy	\$294.69	7.81	\$2300.82
		AGL Hydro	DARTM1	Energy	-\$1000.00	0.00	-\$4.10
		AGL Hydro	MCKAY1	Energy	-\$1000.00	0.01	-\$9.00
		Snowy Hydro	UPPTUMUT	Energy	-\$1000.00	-6.71	\$6707.00
		AGL Hydro	WKIEWA1	Energy	-\$1000.00	0.00	-\$0.80
		AGL Hydro	WKIEWA2	Energy	-\$1000.00	0.00	-\$0.70
		CS Energy	SWAN_E	Raise reg	\$3.40	-6.71	-\$22.80
		Snowy Hydro	UPPTUMUT	Raise reg	\$3.00	6.71	\$20.12
14:55	\$12 004.00	Macquarie Generation	BW03	Energy	\$12 004.00	1.00	\$12 004.00
15:00	\$12 008.00	Macquarie Generation	BW01	Energy	\$12 008.00	1.00	\$12 008.00
<b>Spot price</b>		<b>\$7080/MWh</b>					

<sup>4</sup> Details on how the price is determined can be found at [www.aemo.com.au](http://www.aemo.com.au)

### New South Wales – 3.30 pm 1 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
15:05	\$12 008.00	Macquarie Generation	BW01	Energy	\$12 008.00	1.00	\$12 008.00
15:10	\$12 008.00	Macquarie Generation	BW01	Energy	\$12 008.00	1.00	\$12 008.00
15:15	\$12 006.00	Macquarie Generation	BW02	Energy	\$12 006.00	1.00	\$12 006.00
15:20	\$12 008.00	Macquarie Generation	BW01	Energy	\$12 008.00	1.00	\$12 008.00
15:25	\$12 006.00	Macquarie Generation	BW02	Energy	\$12 006.00	1.00	\$12 006.00
15:30	\$12 399.00	Delta Electricity	VP6	Energy	\$12 399.00	1.00	\$12 399.00
<b>Spot price</b>		<b>\$12 073/MWh</b>					

### New South Wales – 4 pm 1 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
15:35	\$12 399.00	Delta Electricity	VP6	Energy	\$12 399.00	1.00	\$12 399.00
15:40	\$12 400.00	Eraring Energy	ER01	Energy	\$12 400.00	0.50	\$6200.00
		Eraring Energy	ER04	Energy	\$12 400.00	0.50	\$6200.00
15:45	\$12 008.00	Macquarie Generation	BW01	Energy	\$12 008.00	1.00	\$12 008.00
15:50	\$12 002.00	Macquarie Generation	BW04	Energy	\$12 002.00	1.00	\$12 002.00
15:55	\$12 002.00	Macquarie Generation	BW04	Energy	\$12 002.00	1.00	\$12 002.00
16:00	\$12 006.00	Macquarie Generation	BW02	Energy	\$12 006.00	1.00	\$12 006.00
<b>Spot price</b>		<b>\$12 136/MWh</b>					

### New South Wales – 4.30 pm 1 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
16:05	\$12 399.00	Delta Electricity	VP6	Energy	\$12 399.00	1.00	\$12 399.00
16:10	\$12 002.00	Macquarie Generation	BW04	Energy	\$12 002.00	1.00	\$12 002.00
16:15	\$9952.09	Macquarie Generation	LD01	Energy	\$9952.00	1.00	\$9952.00
		Hydro Tasmania	CETHANA	Raise 5 min	\$1.90	0.05	\$0.10
		Macquarie Generation	LD01	Raise reg	\$0.01	-0.05	\$0.00
16:20	\$7706.00	Macquarie Generation	BW02	Energy	\$7706.00	1.00	\$7706.00
16:25	\$7502.00	Macquarie Generation	BW04	Energy	\$7502.00	1.00	\$7502.00
16:30	\$7706.00	Macquarie Generation	BW02	Energy	\$7706.00	1.00	\$7706.00
<b>Spot price</b>		<b>\$9545/MWh</b>					

### New South Wales – 2 pm 2 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
13:35	\$7502.00	Macquarie Generation	BW04	Energy	\$7502.00	1.00	\$7502.00
13:40	\$7604.00	Macquarie Generation	BW03	Energy	\$7604.00	1.00	\$7604.00
13:45	\$7241.94	Snowy Hydro	MURRAY	Energy	\$146.16	7.19	\$1050.47
		AGL Hydro	MCKAY1	Energy	\$47.86	0.01	\$0.28
		Snowy Hydro	UPPTUMUT	Energy	-\$1000.00	-6.20	\$6203.60
		AGL (SA)	TORRB4	Raise 5 min	\$5.00	-6.20	-\$31.02
		Snowy Hydro	UPPTUMUT	Raise reg	\$3.00	6.20	\$18.61
13:50	\$5501.74	Tarong Energy	W/HOE#2	Energy	\$4887.57	1.13	\$5501.94
13:55	\$5304.12	Origin Energy	URANQ13	Energy	\$1066.34	5.60	\$5973.32
		Snowy Hydro	MURRAY	Energy	\$146.16	-4.58	-\$669.05
		AGL Hydro	MCKAY1	Energy	\$47.86	0.00	-\$0.13
14:00	\$337.91	Stanwell	GSTONE6	Energy	\$295.00	1.13	\$334.50
<b>Spot price</b>		<b>\$5582/MWh</b>					

## New South Wales – 2.30 pm 2 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
14:05	\$605.25	Origin Energy	MSTUART3	Energy	\$537.69	1.13	\$605.28
14:10	\$5462.75	Tarong Energy	W/HOE#2	Energy	\$4887.57	1.12	\$5462.84
14:15	\$7502.00	Macquarie Generation	BW04	Energy	\$7502.00	1.00	\$7502.00
14:20	\$6480.91	AGL (SA)	TORRB4	Energy	\$58.77	8.32	\$489.01
		AGL Hydro	MCKAY1	Energy	\$47.86	-1.47	-\$70.45
		Snowy Hydro	UPPTUMUT	Energy	-\$1000.00	-6.06	\$6062.60
		CS Energy	CALL_B_2	Raise reg	\$4.75	2.26	\$10.73
		AGL (SA)	TORRB4	Raise reg	\$3.50	-8.32	-\$29.12
		Snowy Hydro	UPPTUMUT	Raise reg	\$3.00	6.06	\$18.19
14:25	\$7434.33	Snowy Hydro	MURRAY	Energy	\$146.16	7.39	\$1079.87
		AGL Hydro	MCKAY1	Energy	\$47.86	0.01	\$0.41
		Snowy Hydro	UPPTUMUT	Energy	-\$1000.00	-6.37	\$6366.80
		CS Energy	SWAN_E	Raise reg	\$5.00	-6.37	-\$31.83
		Snowy Hydro	UPPTUMUT	Raise reg	\$3.00	6.37	\$19.10
14:30	\$7502.00	Macquarie Generation	BW04	Energy	\$7502.00	1.00	\$7502.00
<b>Spot price</b>		<b>\$5831/MWh</b>					

## New South Wales –3 pm 2 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
14:35	\$7706.00	Macquarie Generation	BW02	Energy	\$7706.00	1.00	\$7706.00
14:40	\$8653.64	Snowy Hydro	GUTHEGA	Energy	\$12 499.00	0.69	\$8568.06
		Hydro Tasmania	REECE2	Energy	\$33.98	0.44	\$15.04
		Basslink	T-V-MNSP1,VIC1	Energy	\$0.01	0.40	\$0.00
		AGL Hydro	DARTM1	Energy	-\$1000.00	-0.02	\$19.80
		AGL Hydro	MCKAY1	Energy	-\$1000.00	-0.04	\$44.30
		AGL Hydro	WKIEWA1	Energy	-\$1000.00	0.00	\$4.40
		AGL Hydro	WKIEWA2	Energy	-\$1000.00	0.00	\$2.20
		Hydro Tasmania	GORDON	Lower 6 sec	\$0.01	0.52	\$0.01
		Hydro Tasmania	REECE2	Lower 6 sec	\$0.01	-0.13	\$0.00
		AGL (SA)	TORRB3	Raise 60 sec	\$0.04	0.40	\$0.02
		TRUenergy (Vic)	YWPS2	Raise 6 sec	\$0.05	0.40	\$0.02
14:45	\$8656.50	Snowy Hydro	GUTHEGA	Energy	\$12 499.00	0.69	\$8570.56
		Ecogen Energy	NPS	Energy	\$40.69	0.39	\$15.71
		AGL Hydro	DARTM1	Energy	-\$1000.00	-0.02	\$19.80
		AGL Hydro	MCKAY1	Energy	-\$1000.00	-0.04	\$44.30
		AGL Hydro	WKIEWA1	Energy	-\$1000.00	0.00	\$4.40
		AGL Hydro	WKIEWA2	Energy	-\$1000.00	0.00	\$2.20
14:50	\$9954.00	Macquarie Generation	LD02	Energy	\$9954.00	1.00	\$9954.00
14:55	\$11 111.06	CS Energy	SWAN_E	Energy	\$9914.98	1.12	\$11 106.76
		AGL (SA)	TORRB2	Raise 5 min	\$5.00	1.12	\$5.60
		CS Energy	SWAN_E	Raise reg	\$1.00	-1.12	-\$1.12
15:00	\$8956.78	CS Energy	SWAN_E	Energy	\$7939.33	1.13	\$8957.15
<b>Spot price</b>		<b>\$9173/MWh</b>					

## New South Wales – 3.30 pm 2 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
15:05	\$11 211.96	Eraring Energy	SHGEN	Energy	\$12 400.01	0.90	\$11 204.65
		AGL Hydro	DARTM1	Energy	\$80.00	0.10	\$7.71
15:10	\$11 211.86	Eraring Energy	SHGEN	Energy	\$12 400.01	0.90	\$11 204.65
		AGL Hydro	DARTM1	Energy	\$80.00	0.10	\$7.71
15:15	\$7706.00	Macquarie Generation	BW02	Energy	\$7706.00	1.00	\$7706.00
15:20	\$9958.17	Macquarie Generation	LD04	Energy	\$9958.00	1.00	\$9958.00
		AGL (SA)	TORRB4	Raise reg	\$3.50	0.05	\$0.18
		Macquarie Generation	LD04	Raise reg	\$0.04	-0.05	\$0.00
15:25	\$11 207.76	Eraring Energy	SHGEN	Energy	\$12 400.01	0.90	\$11 198.45
		AGL (SA)	TORRA1	Energy	\$48.77	0.14	\$6.58
		AGL (SA)	TORRA2	Energy	\$48.77	0.14	\$6.58
		AGL (SA)	TORRA3	Energy	\$48.77	0.14	\$6.58
		Snowy Hydro	MURRAY	Energy	\$30.10	-0.33	-\$9.86
		Hydro Tasmania	GORDON	Lower 5 min	\$0.01	-0.41	\$0.00
		TRUenergy (Vic)	YWPS3	Raise 6 sec	\$0.05	0.14	\$0.01
		AGL (SA)	TORRA1	Raise 6 sec	\$0.03	-0.05	\$0.00
		AGL (SA)	TORRA2	Raise 6 sec	\$0.03	-0.05	\$0.00
		AGL (SA)	TORRA3	Raise 6 sec	\$0.03	-0.05	\$0.00
15:30	\$11 206.66	Eraring Energy	SHGEN	Energy	\$12 400.01	0.90	\$11 197.21
		AGL (SA)	TORRB2	Energy	\$48.77	0.13	\$6.53
		AGL (SA)	TORRB3	Energy	\$48.77	0.13	\$6.53
		AGL (SA)	TORRB4	Energy	\$48.77	0.13	\$6.53
		Snowy Hydro	MURRAY	Energy	\$30.10	-0.33	-\$9.86
		Hydro Tasmania	GORDON	Lower 5 min	\$0.01	-0.40	\$0.00
<b>Spot price</b>		<b>\$10 417/MWh</b>					

## New South Wales – 4 pm 2 February

Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
15:35	\$11 209.57	Eraring Energy	SHGEN	Energy	\$12 400.01	0.90	\$11 202.17
		AGL Hydro	DARTM1	Energy	\$80.00	0.10	\$7.70
15:40	\$11 230.28	Eraring Energy	SHGEN	Energy	\$12 400.01	0.90	\$11 202.17
		Snowy Hydro	MURRAY	Energy	\$294.69	0.10	\$28.38
15:45	\$9013.78	CS Energy	SWAN_E	Energy	\$7939.33	1.14	\$9011.93
		Tarong Energy	TARONG#1	Raise reg	\$5.00	1.14	\$5.68
		CS Energy	SWAN_E	Raise reg	\$3.40	-1.14	-\$3.86
15:50	\$11 228.89	Eraring Energy	SHGEN	Energy	\$12 400.01	0.90	\$11 200.93
		Snowy Hydro	MURRAY	Energy	\$294.69	0.10	\$28.35
15:55	\$7604.00	Macquarie Generation	BW03	Energy	\$7604.00	1.00	\$7604.00
16:00	\$11 174.56	CS Energy	SWAN_B_3	Energy	\$9967.87	1.12	\$11 174.98
<b>Spot price</b>		<b>\$10 244/MWh</b>					

## New South Wales – 4.30 pm 2 February

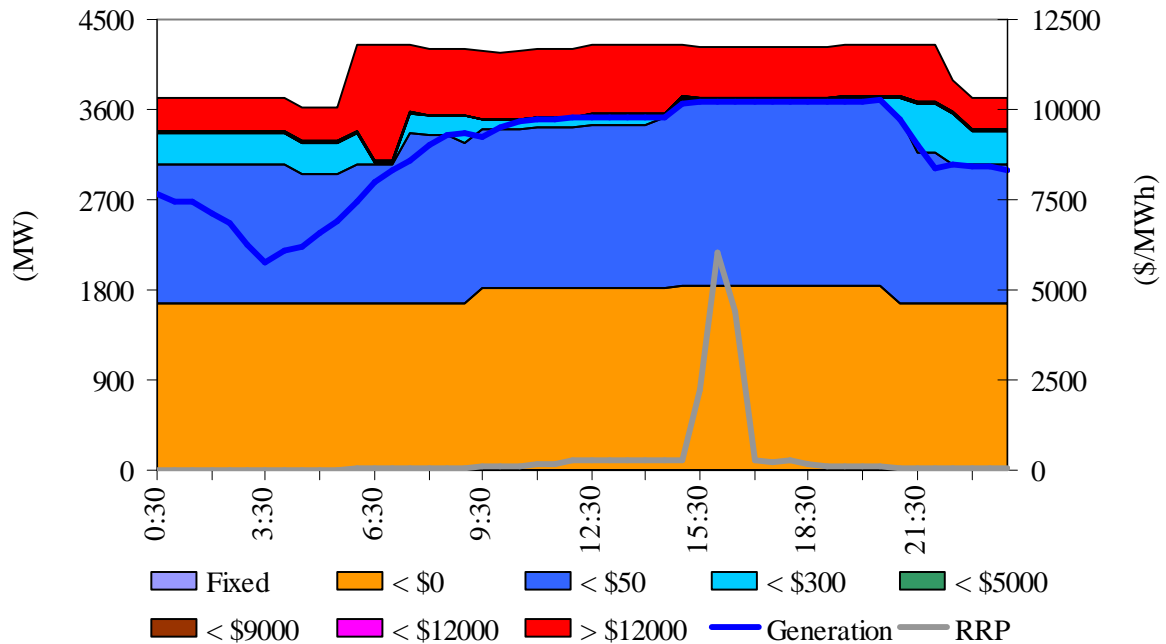
Time	Dispatch price	Participant	Unit	Service	Offer price	Marginal change	Contribution
16:05	\$11 222.88	Eraring Energy	SHGEN	Energy	\$12 400.01	0.90	\$11 194.73
		Snowy Hydro	MURRAY	Energy	\$294.69	0.10	\$28.26
		AGL Hydro	DARTM1	Energy	\$80.00	0.00	\$0.00
16:10	\$9954.00	Macquarie Generation	LD02	Energy	\$9954.00	1.00	\$9954.00
16:15	\$7706.00	Macquarie Generation	BW02	Energy	\$7706.00	1.00	\$7706.00
16:20	\$7706.00	Macquarie Generation	BW02	Energy	\$7706.00	1.00	\$7706.00
16:25	\$8549.43	CS Energy	SWAN_E	Energy	\$7939.33	1.08	\$8549.07
		AGL (SA)	TORRB3	Raise 60 sec	\$0.04	0.62	\$0.02
		CS Energy	SWAN_E	Raise 60 sec	\$0.01	-0.62	-\$0.01
16:30	\$7502.00	Macquarie Generation	BW04	Energy	\$7502.00	1.00	\$7502.00
<b>Spot price</b>		<b>\$8773/MWh</b>					



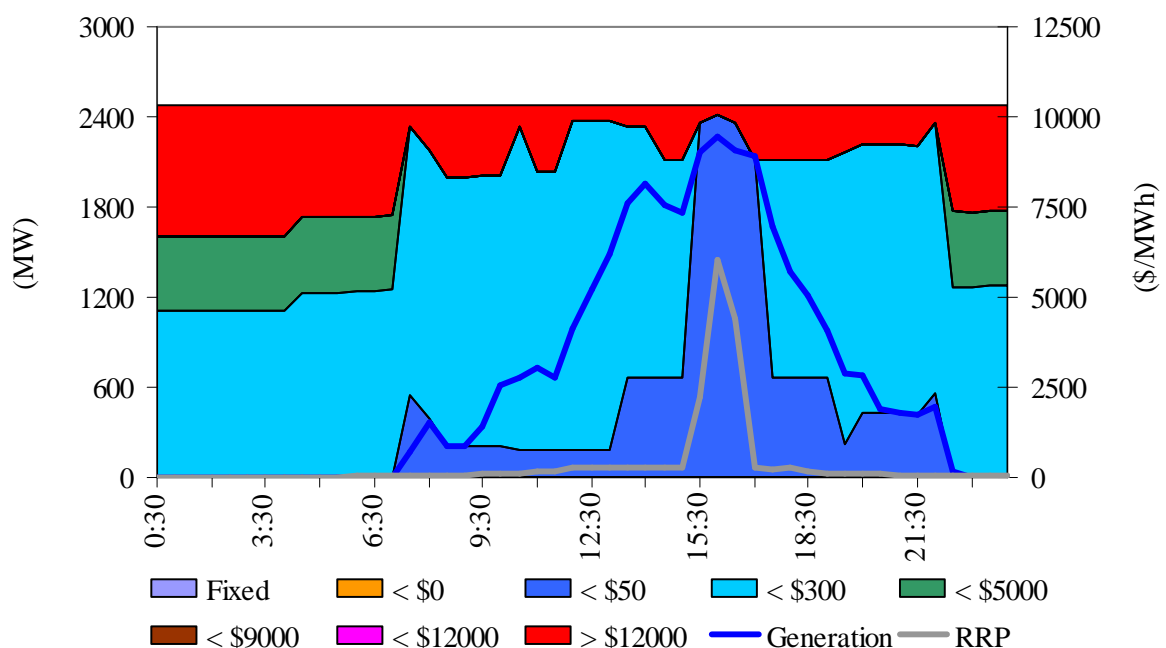
## Appendix B – Closing bids

Figures B1 – B11 highlight the half hour closing bids for participants in New South Wales with significant capacity priced at or above \$5000/MWh during the periods in which the spot price exceeded \$5000/MWh. They also show generation output and the spot price.

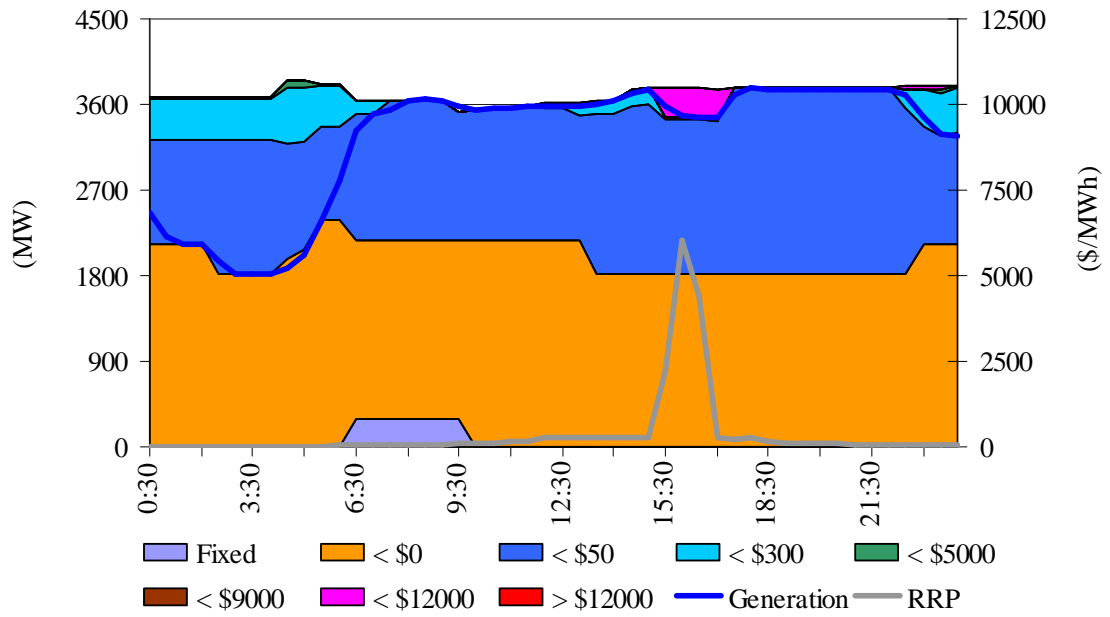
**Figure B1: Delta Electricity closing bid prices, dispatch and spot price on 31 January**



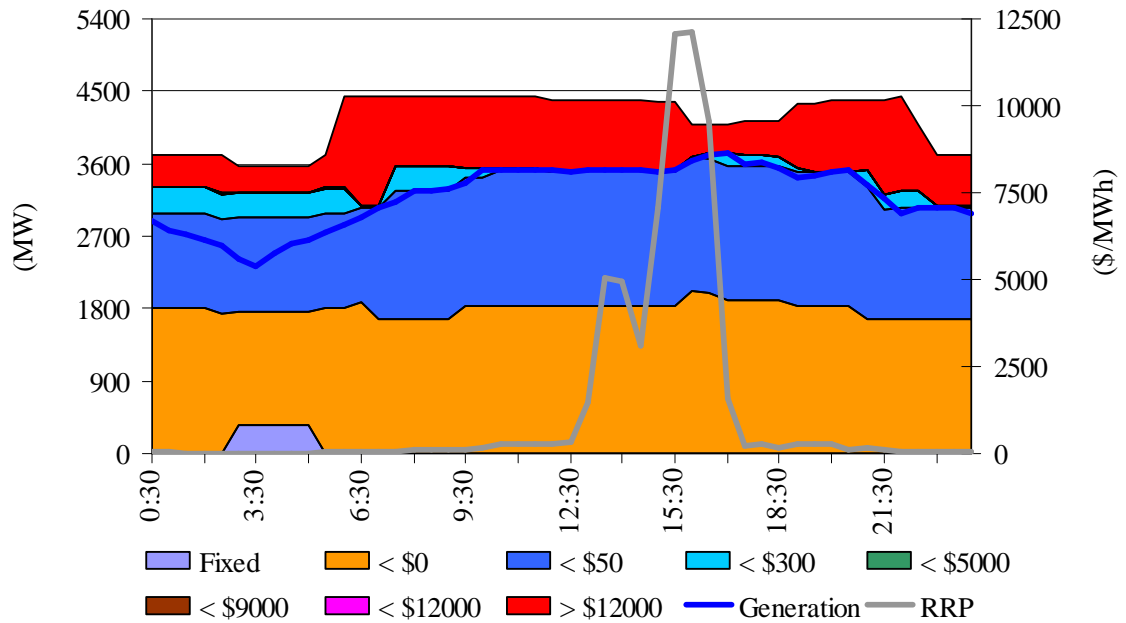
**Figure B2: Snowy Hydro (NSW) closing bid prices, dispatch and spot price on 31 January**



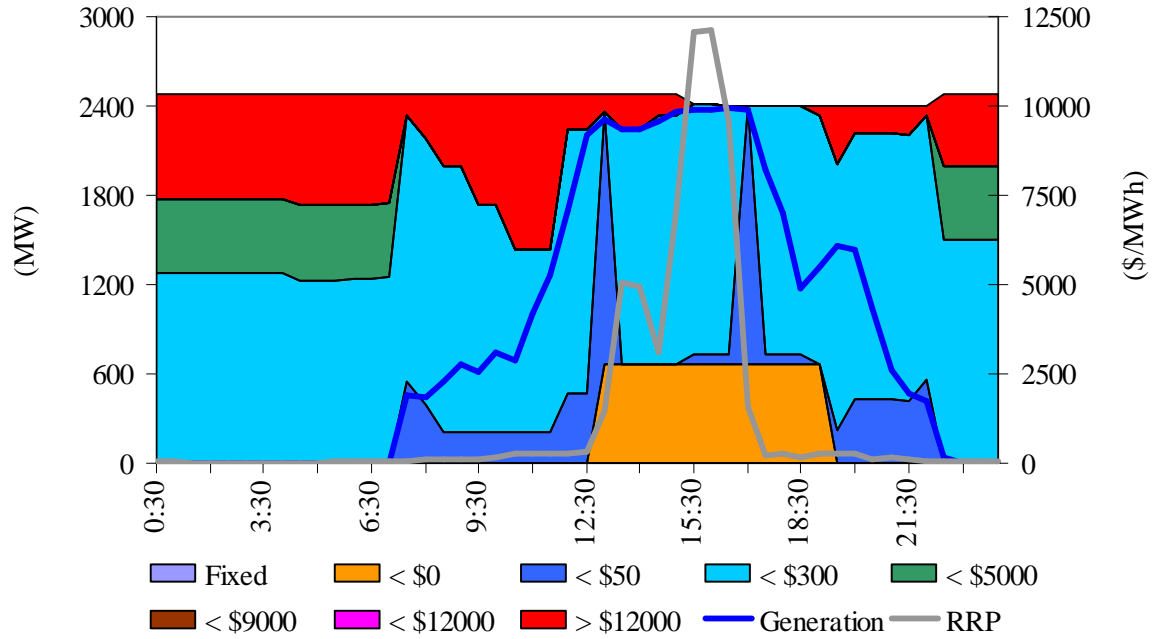
**Figure B3: Macquarie Generation closing bid prices, dispatch and spot price on 31 January**



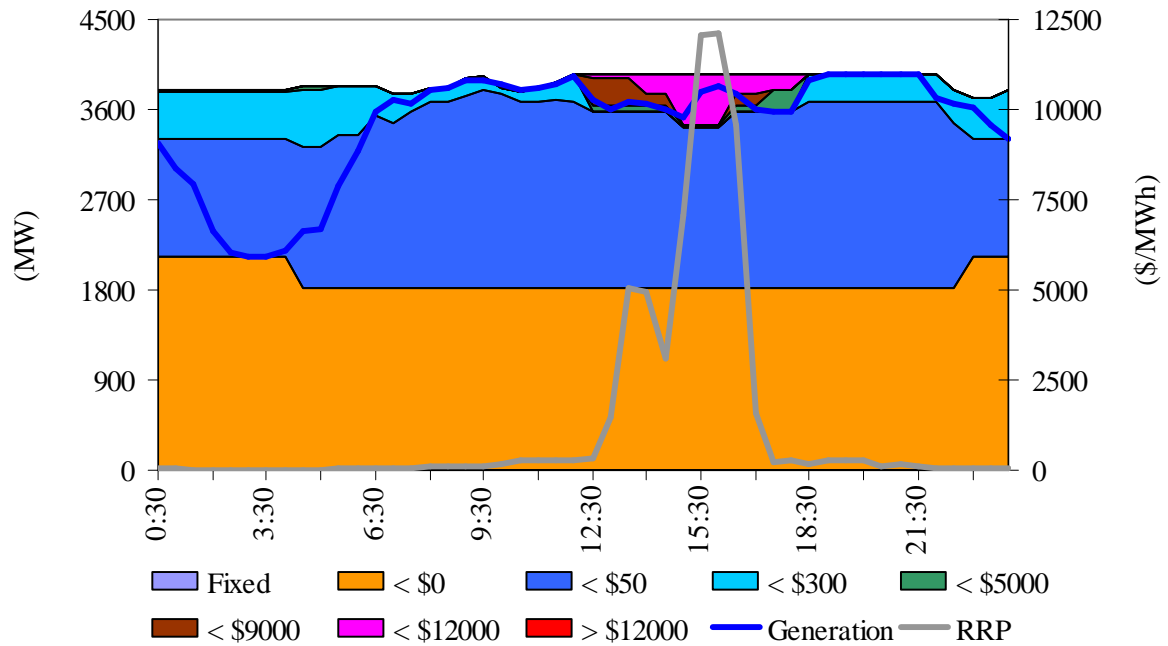
**Figure B4: Delta Electricity closing bid prices, dispatch and spot price on 1 February**



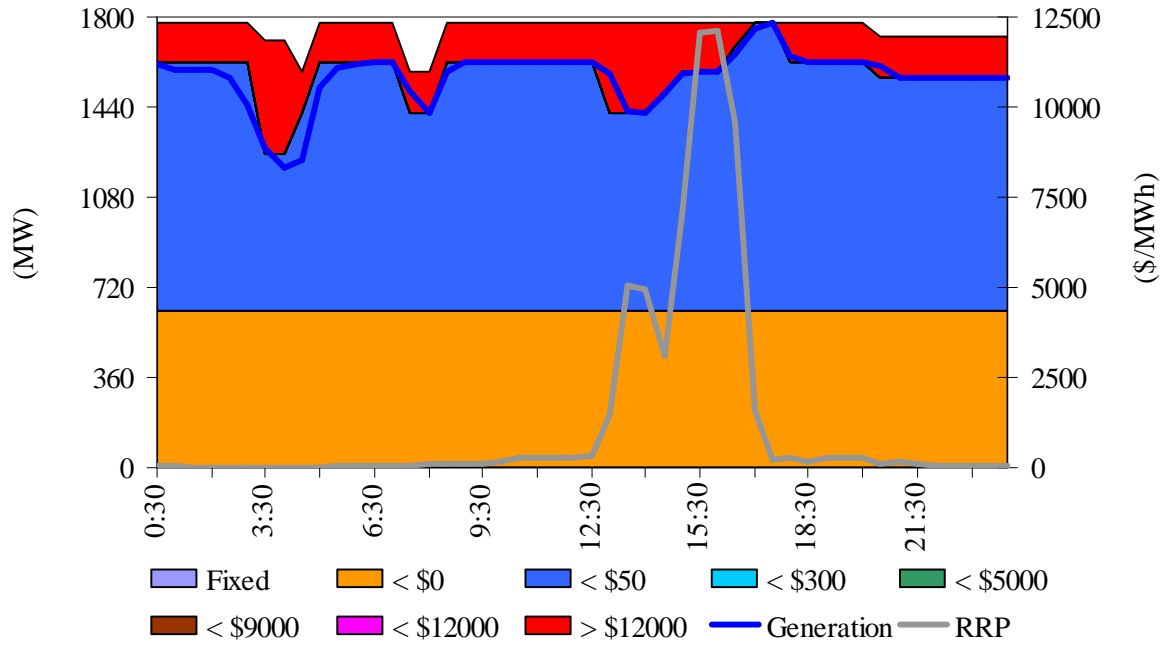
**Figure B5: Snowy Hydro (NSW) closing bid prices, dispatch and spot price on 1 February**



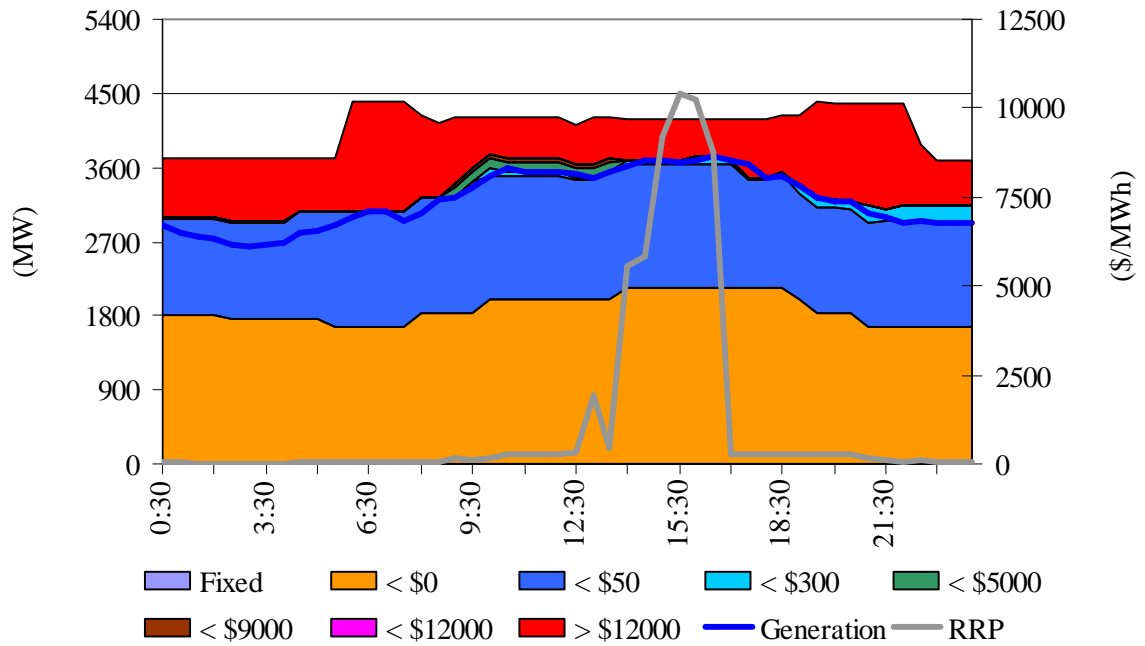
**Figure B6: Macquarie Generation closing bid prices, dispatch and spot price on 1 February**



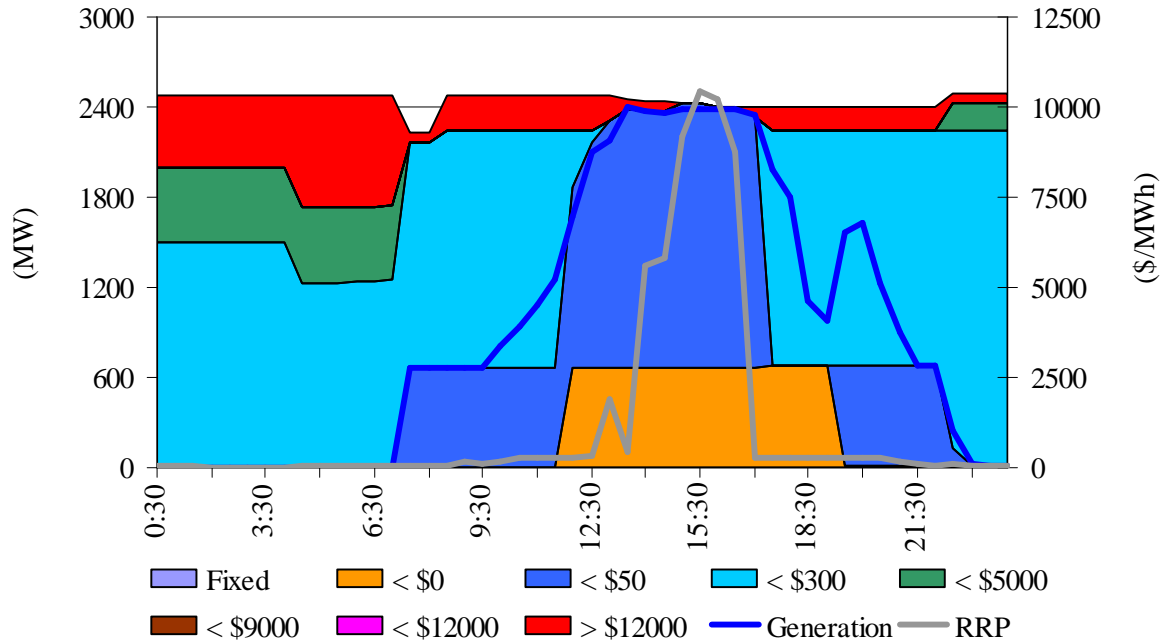
**Figure B7: Eraring Energy closing bid prices, dispatch and spot price on 1 February**



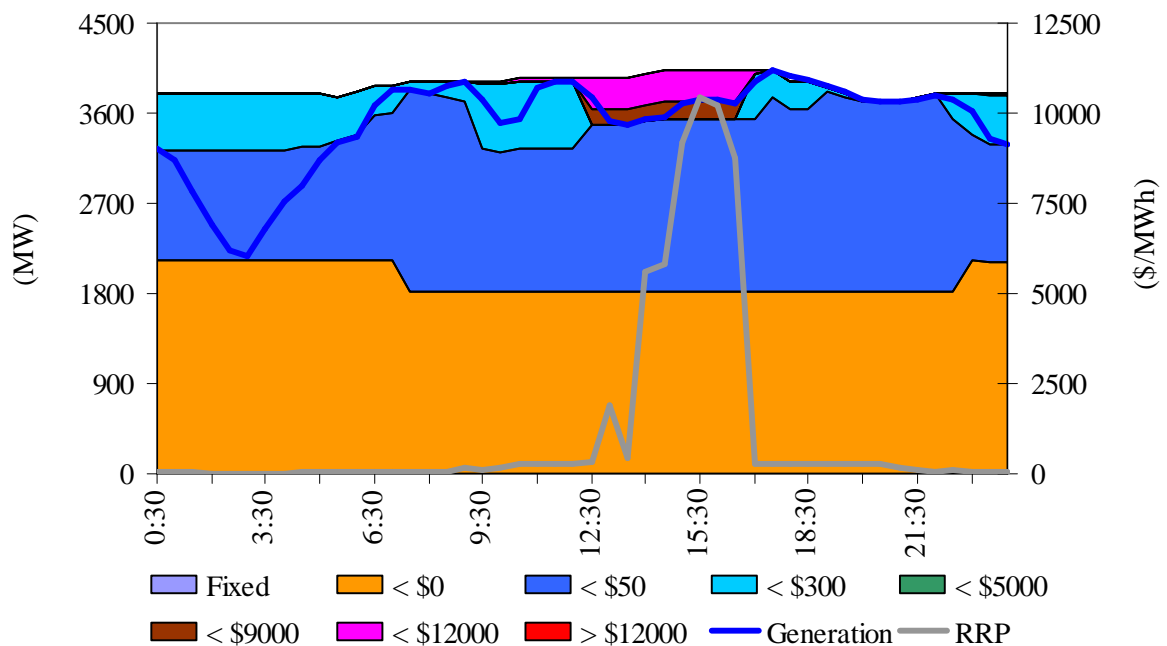
**Figure B8: Delta Electricity closing bid prices, dispatch and spot price on 2 February**



**Figure B9: Snowy Hydro (NSW) closing bid prices, dispatch and spot price on 2 February**



**Figure B10: Macquarie Generation closing bid prices, dispatch and spot price on 2 February**



**Figure B11: Eraring Energy closing bid prices, dispatch and spot price on 2 February**

