

## 20 – 26 October 2019

### Introduction

The AER is required to publish the reasons for significant variations between forecast and actual price and is responsible for monitoring activity and behaviour in the National Electricity Market. The Electricity Report forms an important part of this work. The report contains information on significant price variations, movements in the contract market, together with analysis of spot market outcomes and rebidding behaviour. By monitoring activity in these markets, the AER is able to keep up to date with market conditions and identify compliance issues.

### Spot market prices

Figure 1 shows the spot prices that occurred in each region during the week 20 to 26 October 2019.

**Figure 1: Spot price by region (\$/MWh)**

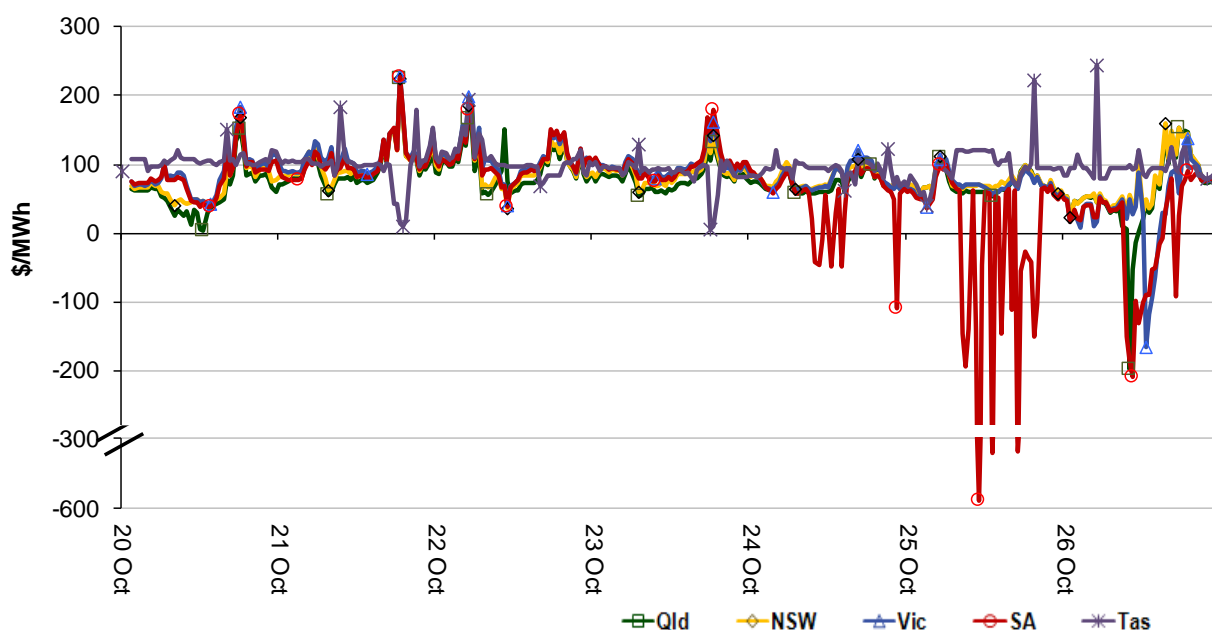
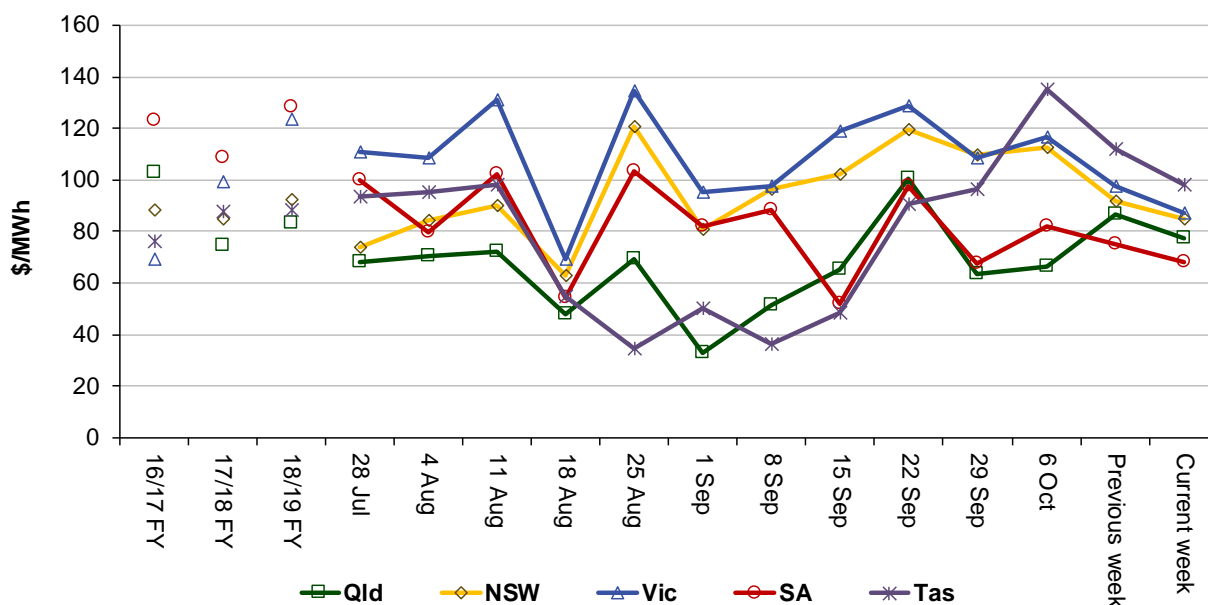


Figure 2 shows the volume weighted average (VWA) prices for the current week (with prices shown in Table 1) and the preceding 12 weeks, as well as the VWA price over the previous 3 financial years.

**Figure 2: Volume weighted average spot price by region (\$/MWh)**



**Table 1: Volume weighted average spot prices by region (\$/MWh)**

Region	Qld	NSW	Vic	SA	Tas
Current week	77	85	87	68	98
18-19 financial YTD	80	90	87	95	53
19-20 financial YTD	67	89	103	80	78

Longer-term statistics tracking average spot market prices are available on the [AER website](#).

## Spot market price forecast 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 participants react to changing market conditions. A key focus is whether the actual price differs significantly from the forecast price either four or 12 hours ahead. These timeframes have been chosen as indicative of the time frames within which different technology types may be able to commit (intermediate plant within four hours and slow start plant within 12 hours).

There were 223 trading intervals throughout the week where actual prices varied significantly from forecasts. This compares to the weekly average in 2018 of 199 counts and the average in 2017 of 185. Reasons for the variations for this week are summarised in Table 2. Based on AER analysis, 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.

**Table 2: Reasons for variations between forecast and actual prices**

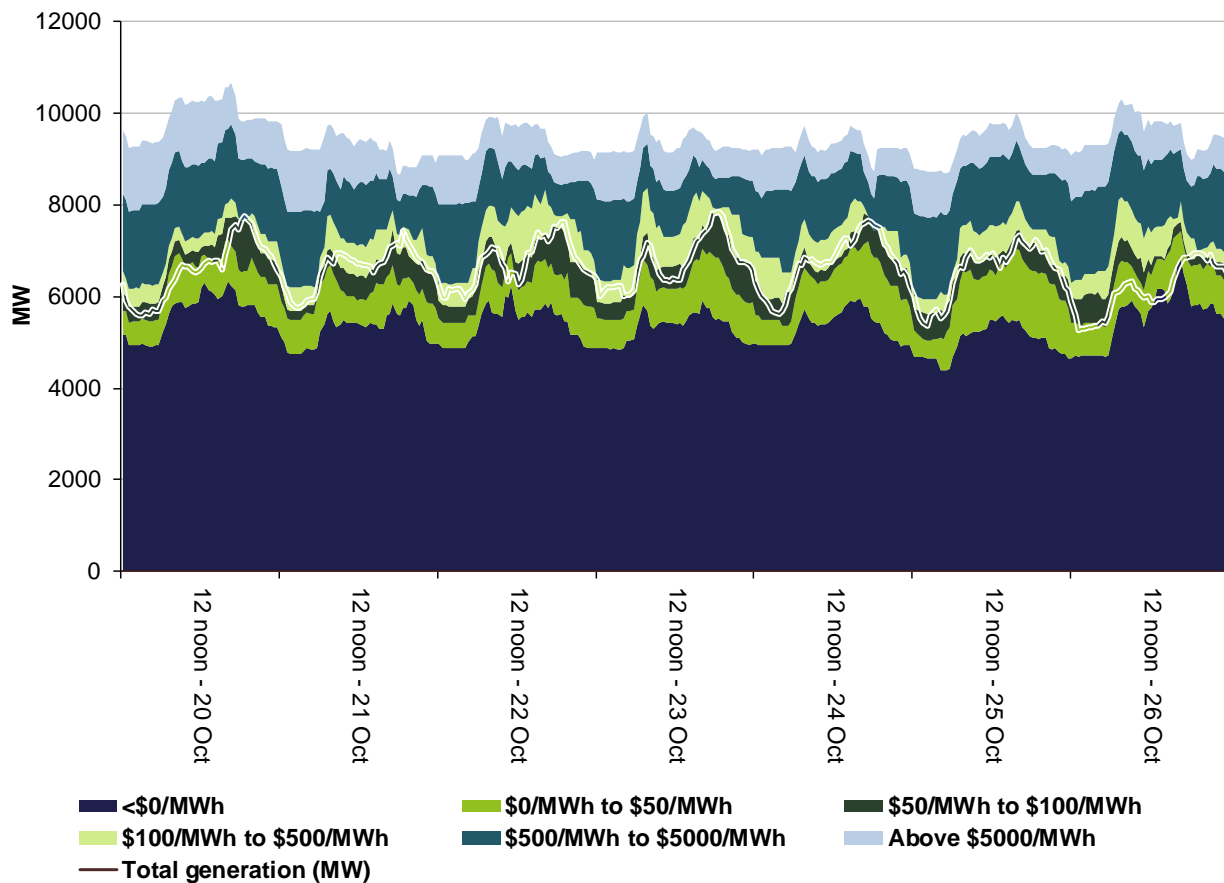
	Availability	Demand	Network	Combination
% of total above forecast	2	24	0	1
% of total below forecast	8	59	0	6

Note: Due to rounding, the total may not be 100 per cent.

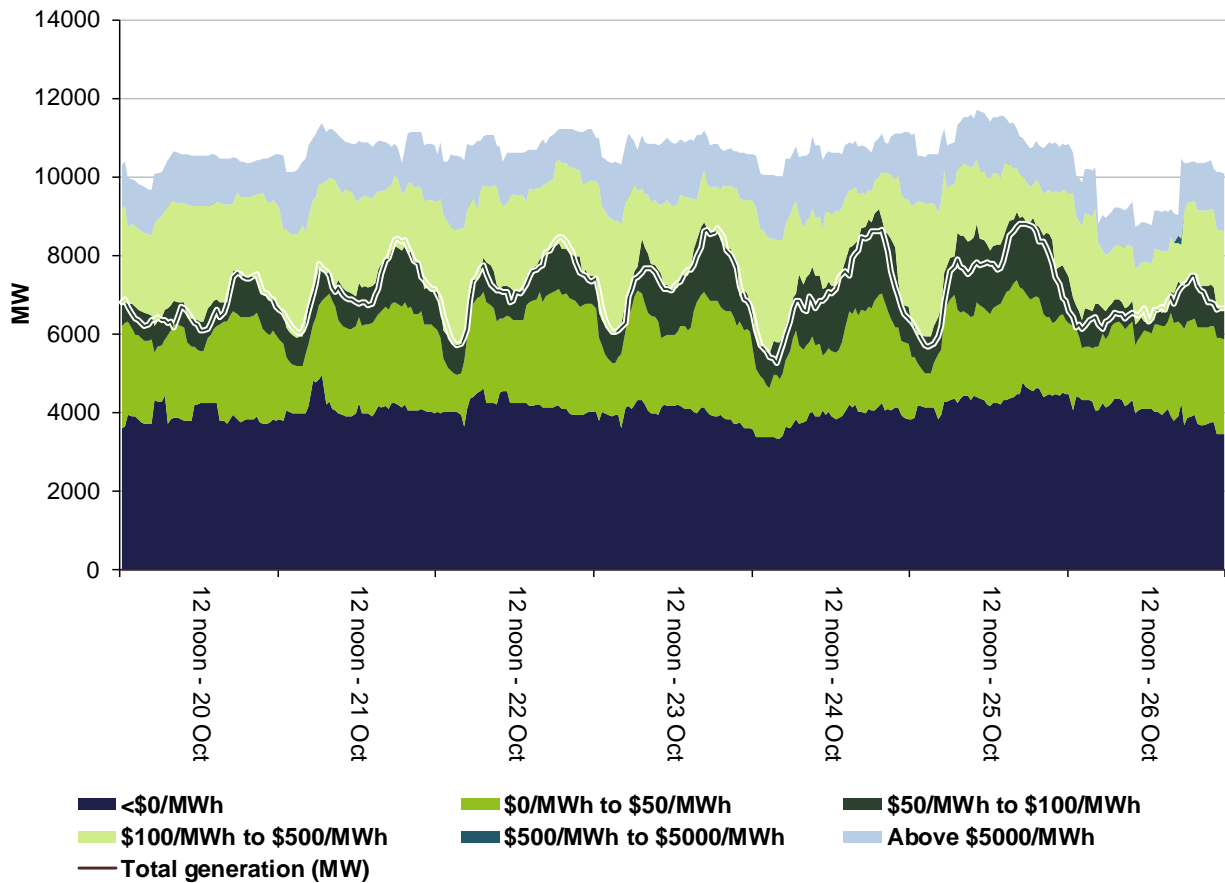
## Generation and bidding patterns

The AER reviews generator bidding as part of its market monitoring to better understand the drivers behind price variations. Figure 3 to Figure 7 show the total generation dispatched and the amounts of capacity offered within certain price bands for each 30 minute trading interval in each region.

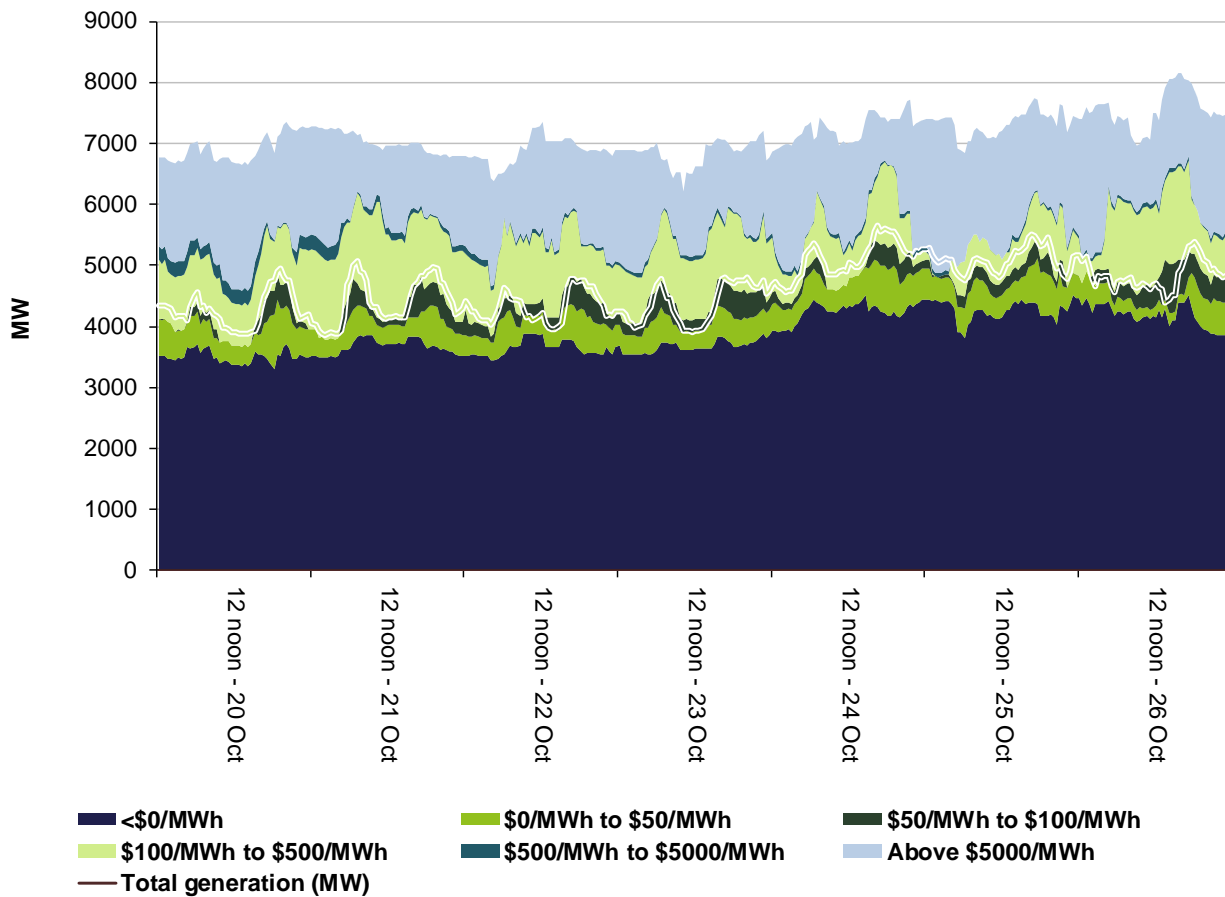
**Figure 3: Queensland generation and bidding patterns**



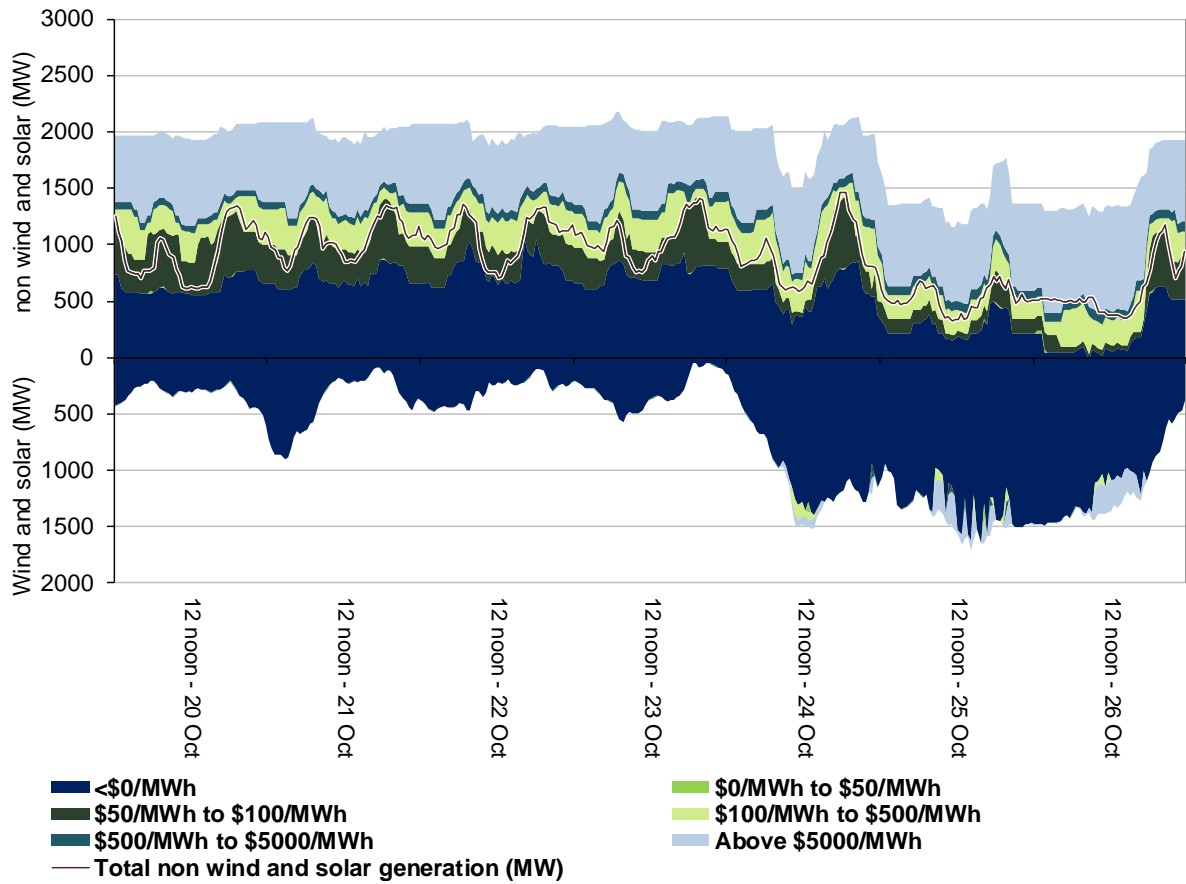
**Figure 4: New South Wales generation and bidding patterns**



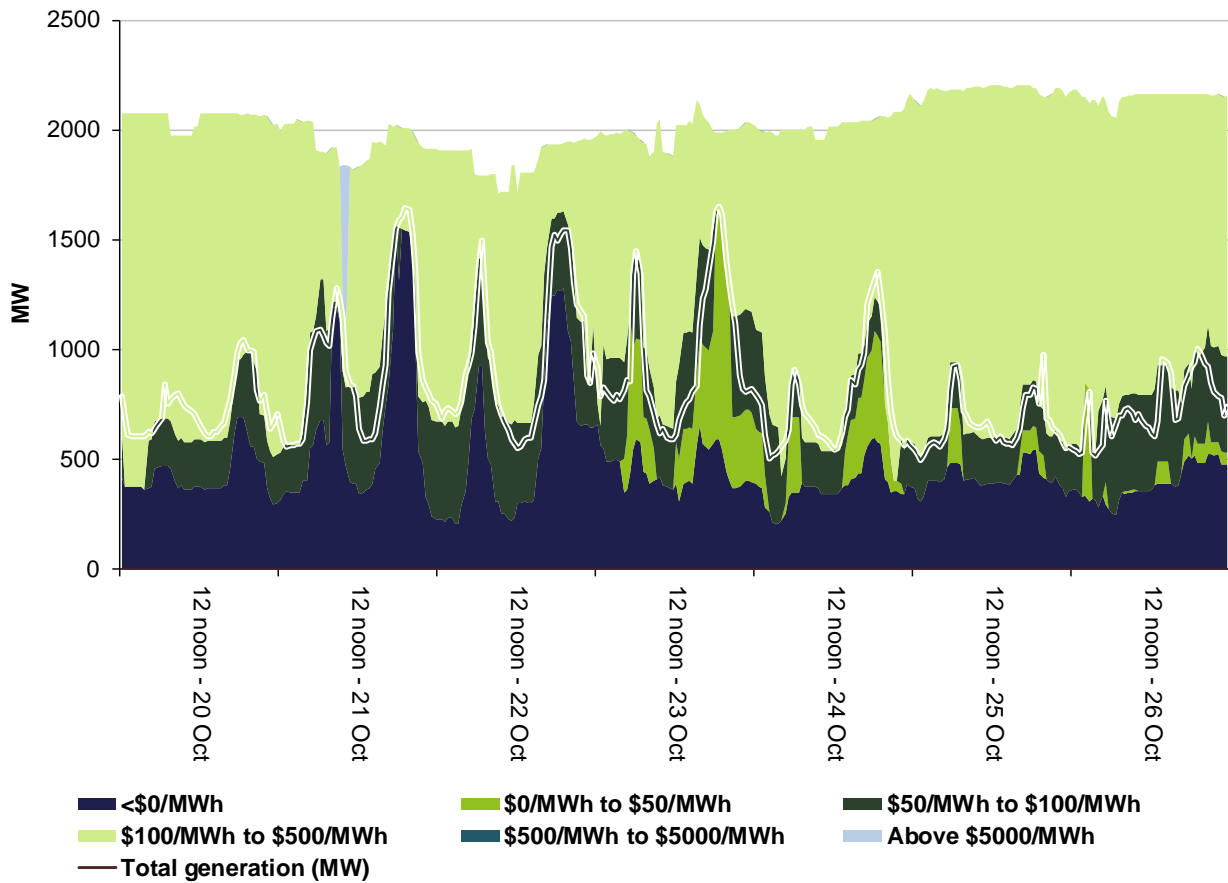
**Figure 5: Victoria generation and bidding patterns**



**Figure 6: South Australia generation and bidding patterns**



**Figure 7: Tasmania generation and bidding patterns**



## Frequency control ancillary services markets

Frequency control ancillary services (FCAS) are required to maintain the frequency of the power system within the frequency operating standards. Raise and lower regulation services are used to address small fluctuations in frequency, while raise and lower contingency services are used to address larger frequency deviations. There are six contingency services:

- fast services, which arrest a frequency deviation within the first 6 seconds of a contingent event (raise and lower 6 second)
- slow services, which stabilise frequency deviations within 60 seconds of the event (raise and lower 60 second)
- delayed services, which return the frequency to the normal operating band within 5 minutes (raise and lower 5 minute) at which time the five minute dispatch process will take effect.

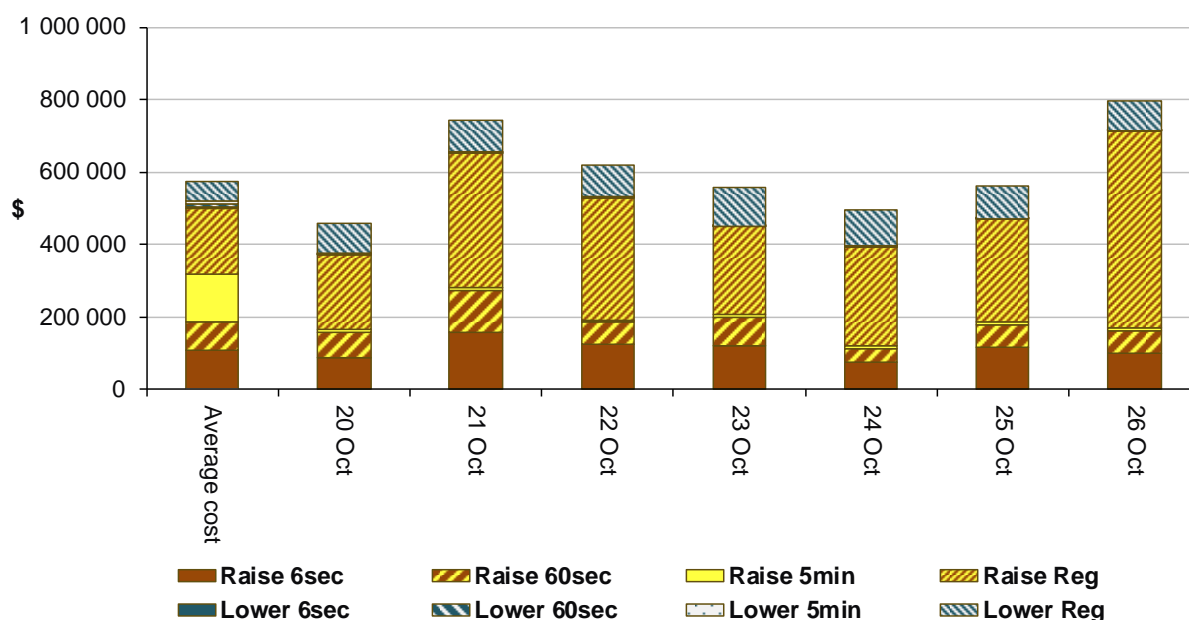
The Electricity Rules stipulate that generators pay for raise contingency services and customers pay for lower contingency services. Regulation services are paid for on a “causer pays” basis determined every four weeks by AEMO.

The total cost of FCAS on the mainland for the week was \$3 610 000 or around 1 per cent of energy turnover on the mainland.

The total cost of FCAS in Tasmania for the week was \$620 000 or around 4 per cent of energy turnover in Tasmania.

Figure 8 shows the daily breakdown of cost for each FCAS for the NEM, as well as the average cost since the beginning of the previous financial year.

**Figure 8: Daily frequency control ancillary service cost**



## Detailed market analysis of significant price events

### Queensland

There was one occasion where the spot price in Queensland was below  $-\$100/\text{MWh}$ .

#### Saturday, 26 October

**Table 3: Price, Demand and Availability**

Time	Price ( $\$/\text{MWh}$ )			Demand (MW)			Availability (MW)		
	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast
10.30 am	-198.24	12.43	12.43	4747	4826	4843	10 068	10 073	10 092

Demand was 79 MW less than forecast while availability was close to forecast, both four hours prior. At 9.56 am, effective from 10.05 am, Origin Energy rebid 145 MW of capacity from prices above  $\$54/\text{MWh}$  to the price floor. The reason related to tuning testing. The rebid and falling demand saw the price go negative for the last five dispatch intervals.

### Victoria

There were two occasions where the spot price in Victoria was below  $-\$100/\text{MWh}$ .

#### Saturday, 26 October

**Table 4: Price, Demand and Availability**

Time	Price ( $\$/\text{MWh}$ )			Demand (MW)			Availability (MW)		
	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast
1 pm	-166.08	-169.18	20.07	3516	3297	3302	7510	7420	7832
1.30 pm	-117.84	-169.90	19.87	3624	3193	3251	7723	7417	7833

Price was close to the four hour forecast for the 1 pm trading interval.

For the 1.30 pm trading interval, demand was 431 MW higher than forecast while availability was 306 MW higher than forecast, four hours prior. The additional availability was due to Newport and Dartmouth becoming available for a total of 328 MW, most of which was priced above  $\$90/\text{MWh}$ .

From 10.18 am participants in Victoria rebid over 230 MW of capacity from below  $-\$900/\text{MWh}$ , see Table 5 for rebid details. As a result of rebids and higher than forecast demand, the actual price settled higher than the four hour forecast.

**Table 5: Rebids for 1.30 pm interval**

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from ( $\$/\text{MWh}$ )	Price to ( $\$/\text{MWh}$ )	Rebid reason
10.18 am		Lal Lal Wind Farms Nom Co Pty Ltd	Yendon Wind Farm	42	-985	1	change in forecast prices of

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
12.36 pm		Numurkah Solar Farm Pty Ltd	Numurkah Solar Farm	100	-993	-5	1236 A constraint management
1.09 pm	1.20 pm	AGL Energy	Loy Yang A	90	-1000	59	1231~A~050 chg in aemo pd~50 pd demand decrease [nem] -172MW pe 1330 (1231pd) (sl)

## South Australia

There were sixteen occasions where the spot price in South Australia was below  $-\$100/\text{MWh}$ .

### Thursday, 24 October

**Table 6: Price, Demand and Availability**

Time	Price (\$/MWh)			Demand (MW)			Availability (MW)		
	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast
11 pm	-109.86	55.85	-3.09	1236	1255	1178	3191	3211	3334

Demand and availability were both close to forecast, four hours prior. A system normal constraint managing exports to Victoria across the Heywood interconnector reduced the upper flow limit by 25 MW at 10.35 pm. At the same time demand in South Australia fell by 24 MW. These resulted in a reduction in South Australian generation by over 50 MW, causing both Lake Bonney 2 and Lake Bonney 3 wind farms to become ramp-down constrained and unable to set price. As these were the only two units in South Australia with offers priced between  $\$0/\text{MWh}$  and the price floor at the time, the dispatch price fell to the floor for one dispatch interval. In response to the negative dispatch price, a number of generators shifted capacity from prices below  $-\$3/\text{MWh}$  to prices above  $\$85/\text{MWh}$  to avoid uneconomic dispatch, see Table 7 for rebid details.

**Table 7: Significant rebids**

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
10.32 pm	10.40 pm	Infigen	Lake Bonney 2 WF	146	-3	12 879	2230~A~sa -\$1000 price
10.33 pm	10.40 pm	EnergyAustralia	Waterloo WF	130	-1000	85	2233 A band adj to manage 5min negative dp
10.33 pm	10.40 pm	Engie	Pelican Point	142	77	316	2230~A~resoone to sa price: -\$1000 di 22:35~
10.33 pm	10.40 pm	Trustpower	Snowtown WF	99	-1000	5000	2230 A sa1 5min pd rrp for 2300 (\$46.21) published at 2230 is 27.06% lower than 30min pd rrp published at 1501 (\$63.36) - time of alert: 2233



## Friday, 25 October

**Table 8: Price, Demand and Availability**

Time	Price (\$/MWh)			Demand (MW)			Availability (MW)		
	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast
9 am	-145.32	64.47	66.18	861	910	930	2745	2590	2608
9.30 am	-192.86	60.94	62.74	833	820	840	2675	2590	2617
10 am	-139.27	-36.13	59.35	834	734	769	2710	2581	2626

Demand was between 49 MW less and 100 MW higher than forecast, while availability was between 85 MW and 155 MW higher than forecast, four hours prior. The additional availability was due to higher than forecast wind generation, most of which was priced below \$0/MWh.

Reduction in energy consumption by battery loads must be offset by a decrease in generation. Effective 8.55 am, Neoen withdrew 40 MW of battery load at Hornsdale Power Reserve due to a change in forecast prices. This meant the Hornsdale battery went from charging 40 MW at 8.50 am to 0 MW at 8.55 am and resulted in a decrease in South Australian generation. As there was less than 40 MW of capacity priced between \$70/MWh and the price floor at the time, the price fell to the price floor once during the 9 am trading interval.

For the 9.30 am trading interval, the dispatch price fell to -\$350/MWh at 9.15 am and further to -\$900/MWh at 9.20 am. This was mainly the result of demand falling collectively by 83 MW across the two dispatch intervals. In response to these negatively priced intervals participants shifted capacity from the price floor to prices above \$350/MWh, see Table 9 for rebid details.

**Table 9: Significant rebids, 9.30 am**

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
9.08 am	9.15 am	Trustpower	Snowtown WF	99	-1000	14700	0900 A sa1 30min pd rrp for 0930 (\$-1000.0) published at 0900 is 1423.71% lower than 30min pd rrp published at 0831 (\$65.63) - time of alert: 0908
9.12 am	9.20 am	Infigen	Lake Bonney 2 WF	146	-1000	12879	0915~A~sa price dp@0915 for 0915 411 lwr thn 5pd@0910
9.13 am	9.20 am	EnergyAustralia	Waterloo WF	130	-350	-1000	0913 A band adj to manage change in forecast price for pe 0930
9.13 am	9.20 am	Trustpower	Snowtown WF	99	14700	-1000	0900 A sa1 30min pd rrp for 0930 (\$-1000.0) published at 0900 is 1423.71% lower than 30min pd rrp published at 0831 (\$65.63) - time of alert: 0913
9.18 am	9.25 am	EnergyAustralia	Waterloo WF	130	-1000	350	0918 A band adj to manage 5min negative dp sl

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
9.18 am	9.25 am	Trustpower	Snowtown WF	99	-1000	14700	0900 A sa1 30min pd rrp for 0930 (\$-1000.0) published at 0900 is 1423.71% lower than 30min pd rrp published at 0831 (\$65.63) - time of alert: 0918

At 9.40 am Waterloo Wind Farm increased output by 89 MW, all of which was priced at the price floor. The addition availability caused the dispatch price to drop to -\$96/MWh at 9.40 am and then further to -\$900/MWh at 9.45 am. In response, almost 230 MW of capacity was rebid at Waterloo Wind Farm and Snowtown Wind Farm from the price floor to prices above \$150/MWh. This caused the price to settle between \$34/MWh and \$64/MWh for the remainder of the 10 am trading interval.

**Table 10: Price, Demand and Availability**

Time	Price (\$/MWh)			Demand (MW)			Availability (MW)		
	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast
11 am	-142.19	-1000	-1000	832	631	668	2688	2639	2682
11.30 am	-568.10	-1000	-1000	753	623	650	2655	2645	2669

For the 11 am and 11.30 am trading intervals, demand was between 130 MW and 201 MW higher than forecast while availability was close to forecast, four hours prior. For both trading intervals, approximately 400 MW of capacity at the price floor was either withdrawn or rebid to prices above -\$350/MWh, see Table 11 and Table 12 for details. As a result, most of the dispatch prices during these two trading intervals settled above the forecasted price floor.

**Table 11: Significant rebids, 11 am**

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
7.04 am		Engie	Willogeleche Wind Farm	62	-1000	-100	0655~A~respond to 30mpd~
8.09 am		Engie	Pelican Point	-48	-1000	N/A	0735~A~respond to 30mpd low load ops~
10.52 am	11.00 am	Infigen	Lake Bonney 2 WF	146	-1000	12 879	1050~A~sa price dp@1055 for 1055 1060 lwr thn 5pd@1050
10.53 am	11.00 am	EnergyAustralia	Waterloo WF	130	-1000	85	1053 A band adj to manage 5min negative dp
10.53 am	11.00 am	Trustpower	Snowtown WF	99	-1000	14 700	1050 A sa1 5min pd rrp for 1100 (\$-1000.0) published at 1050 is 1570.26% lower than 5min pd rrp published at 1045 (\$59.87) - time of alert: 1053

**Table 12: Significant rebids, 11.30 am**

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
8.09 am		Engie	Pelican Point	-48	-1000	N/A	0735~A~respond to 30mpd low load ops~
9.41 am		Infigen	Lake Bonney 2 WF	146	-1000	-3	0945~A~const mgmt S_NIL_STRENGTH_1 SL~
11.03 am	11.10 am	EnergyAustralia	Waterloo WF	130	-1000	50	1103 A band adj to manage 5min negative dp
11.03 am	11.10 am	Trustpower	Snowtown WF	99	-1000	14 700	1100 A sa1 30min pd rrp for 1130 (\$-900.0) published at 1100 is 1394.91% lower than 30min pd rrp published at 1031 (\$60.2) - time of alert: 1103
11.07 am	11.15 am	Engie	Willogoleche Wind Farm	24	-1000	-100	1015~A~respond to 5mpd unforecast -\$900MWH in di 11:10~

**Table 13: Price, Demand and Availability**

Time	Price (\$/MWh)			Demand (MW)			Availability (MW)		
	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast
1.30 pm	-359.22	-1000	-1000	813	668	668	2791	2577	2723
3 pm	-146.08	-900	-1000	865	736	717	2911	2749	2760

For the 1.30 pm trading interval, demand was 145 MW higher than forecast and availability was 214 MW higher than forecast, four hours prior. The additional availability was due to higher than forecast wind generation, most of which was priced below \$0/MWh. Rebidding before and during the trading interval saw approximately 460 MW of capacity shifted from the price floor to prices above -\$100/MWh (see Table 14 for rebid details). As a result, prices settled above the price floor for most of this trading interval.

**Table 14: Significant rebids, 1.30 pm**

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
11.10 am		Engie	Willogoleche Wind Farm	24	-1000	-100	1105~A~respond to 30mpd~
11.31 am		Engie	Willogoleche Wind Farm	25	-1000	-100	1120~A~respond to 30mpd~
1.07 pm	1.15 pm	Infigen	Lake Bonney 2 WF	146	-1000	12 879	1310~A~sa price dp@1310 for 1310 1047 lwr thn 5pd@1305 sl~
1.08 pm	1.15 pm	EnergyAustralia	Waterloo WF	130	-1000	85	1308 A band adj to manage 5min negative dp sl

1.08 pm	1.15 pm	Trustpower	Snowtown WF	99	-1000	14700	1305 A sa1 5min pd rrp for 1315 (\$-1000.0) published at 1305 is 1827.25% lower than 5min pd rrp published at 1300 (\$51.89) - time of alert: 1308
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1.08 pm	1.15 pm	Engie	Willogoleche Wind Farm	62	-1000	-100	1305~A~respond to 5mpd unforecast - \$1000 MWh in di 13:10~
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For the 3 pm trading interval, demand was 129 MW higher than forecast and availability was 162 MW higher than forecast, four hours prior. The additional availability was due to higher than forecast wind generation, most of which was priced below \$0/MWh. Within the trading interval approximately 420 MW of capacity was rebid from the price floor to above \$85/MWh, see Table 15 for rebid details. As a result, prices settled above the price floor for most of this trading interval.

**Table 15: Significant rebids, 3 pm**

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
2.36 pm	2.45 pm	Infigen	Lake Bonney 2 WF	146	-1000	12879	1440~A~SA PRICE DP@1440 FOR 1440 1050 LWR THN 5PD@1435 SL~
2.38 pm	2.45 pm	EnergyAustralia	Waterloo WF	130	-1000	85	1438 A band adj to manage 5min negative dp sl
2.38 pm	2.45 pm	Trustpower	Snowtown WF	99	-1000	14 700	1435 A sa1 5min pd rrp for 1445 (\$-1000.0) published at 1435 is 1871.82% lower than 5min pd rrp published at 1430 (\$50.71) - time of alert: 1438
2.39 pm	2.50 pm	Engie	Willogoleche Wind Farm	49	-1000	-100	1435~A~respond to 5min pd. \$-1000~

**Table 16: Price, Demand and Availability**

Time	Price (\$/MWh)			Demand (MW)			Availability (MW)		
	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast
4.30 pm	-110.41	87.73	77.50	891	859	867	3007	2754	2752
5.30 pm	-357.64	79.69	77.50	1171	1061	1024	3049	2826	2810
8 pm	-150.88	54.03	77.50	1376	1157	1194	3284	3039	3002
8.30 pm	-103.14	52.50	71.42	1301	1156	1170	3091	2858	2814

For the 4.30 pm and the 5.30 pm trading intervals, demand was 32 MW and 110 MW higher than forecast while availability was 253 MW and 223 MW higher than forecast, four hours prior. The additional availability was due to higher than forecast wind generation, most of which was priced below \$0/MWh. At 4.09 pm, Origin Energy rebid 114 MW of capacity at Ladbroke Grove and Quarantine, from price bands above \$319/MWh to the price floor for both trading intervals, due to a 5 minute demand forecast greater than 30 minute demand forecast. As a result, the dispatch price fell to the price floor once or twice in these trading intervals.

For the 8 pm trading interval, demand was 219 MW higher than forecast and availability was 245 MW higher than forecast, four hours prior. The additional availability was due to higher than forecast wind generation, most of which was priced below \$0/MWh. At 7.55 pm, a system normal constraint managing exports to Victoria across the Heywood interconnector reduced the upper flow limit by 25 MW. At the same time a semi-scheduled dispatch cap on Snowtown Wind Farm was removed, resulting in it dispatching 30 MW more capacity priced at the floor. This resulted in a reduction of higher priced generation by over 40 MW, causing both Lake Bonney 2 and Lake Bonney 3 wind farms to become ramp-down constrained and unable to set price. As these were the only two units in South Australia with offers priced between -\$2/MWh and the price floor at the time, the dispatch price fell to the floor for one dispatch interval.

At 8.15 am Waterloo Wind Farm increased output by 99 MW, all of which was priced at the price floor. The addition availability caused the dispatch price to drop to -\$963/MWh at 8.15 am. In response, almost 250 MW of capacity was rebid at Lake Bonney 2 Wind Farm and Snowtown Wind Farm from below -\$3/MWh to prices above \$10 000/MWh. This caused the price to settle between \$60/MWh and \$73/MWh for the remainder of the 8.30 pm trading interval.

Saturday, 26 October

Table 17: Price, Demand and Availability

Time	Price (\$/MWh)			Demand (MW)			Availability (MW)		
	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast	Actual	4 hr forecast	12 hr forecast
10 am	-150.31	-1000.00	-1000	650	563	564	2739	2624	2704
10.30 am	-187.45	-1000.00	-1000	676	508	523	2698	2629	2723
11 am	-209.01	-1000.00	-1000	649	465	490	2695	2608	2712
Middyay	-131.98	-1000.00	-1000	554	418	460	2698	2586	2677

Demand was between 87 MW and 184 MW higher than forecast, while availability was between 69 MW and 115 MW higher than forecast, four hours prior. The additional availability was due to higher than forecast wind generation, most of which was priced below \$0/MWh. Rebidding for these trading intervals saw at least 340 MW of capacity priced at the floor moved to prices above -\$152/MWh, see Table 18 for rebid details. As a result, prices settled above the price floor for most of these trading intervals.

Table 18: Significant rebids, 26 October

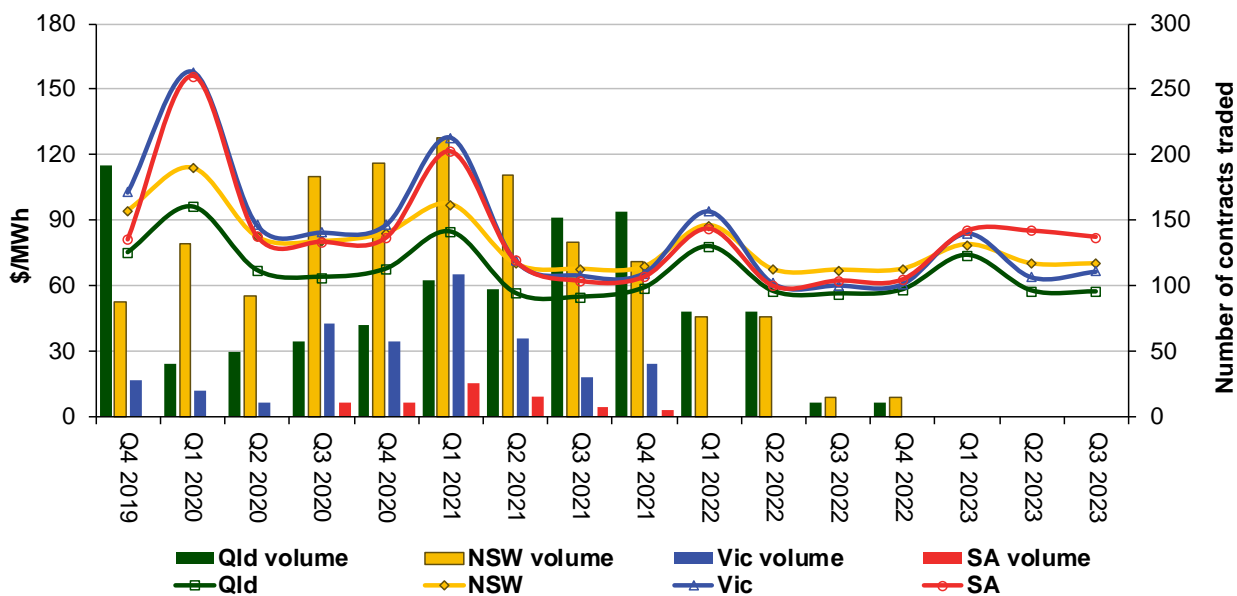
Submitted time	Effective trading intervals	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
9.25 am	10 am 10.30 am 11 am Middyay	Engie	Willogoleche Wind Farm	94	-1000	-100	0920~A~respond to 5mpd -\$1000MWh in di 09:25~
9.37 am	10 am	Infigen	Lake Bonney 2 WF	146	-1000	12 879	0940~A~sa price dp@0940 for 0940 1048 lwr thn 5pd@0935
9.38 am	10 am	Trustpower	Snowtown WF	99	-1000	14 700	0935 A sa1 5min pd rrp for 1000 (\$-1000.0) published at 0935 is 3347.02% lower than 30min pd rrp published at 0900 (\$29.01) - time of alert: 0938
9.38 am	10 am	EnergyAustralia	Waterloo WF	130	-1000	85	0938 A band adj to manage 5min negative dp
10.01 am	10.30 am	Infigen	Lake Bonney 2 WF	146	-1000	12 879	1005~A~sa price dp@1005 for 1005 929 lwr thn 5pd@1000
10.03 am	10.30 am	Trustpower	Snowtown WF	99	-1000	14 700	1000 A sa1 5min pd rrp for 1010 (\$-900.0) published at 1000 is 6009.98% lower than 5min pd rrp published at 0955 (\$14.73) - time of alert: 1003

Submitted time	Effective trading intervals	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
10.03 am	10.30 am	EnergyAustralia	Waterloo WF	130	-1000	50	1003 A band adj to manage 5min negative dp
10.15 am	11 am Midday	Infigen	Lake Bonney 2 WF	146	-1000	-3	1015~A~const mgmt S_NIL_STRENGTH_1
10.15 am	11 am	Infigen	Lake Bonney 3 WF	39	-1000	-152	1015~A~const mgmt S_NIL_STRENGTH_1
10.48 am	11 am	Trustpower	Snowtown WF	99	-1000	14 700	1045 A sa1 5min pd rrp for 1055 (\$-900.0) published at 1045 is 8900.0% lower than 5min pd rrp published at 1035 (\$-3.09) - time of alert: 1048
10.48 am	11 am	EnergyAustralia	Waterloo WF	130	-1000	350	1048 A band adj to manage 5min negative dp
11.28 am	Midday	Trustpower	Snowtown WF	99	-1000	14 700	1125 A sa1 5min pd rrp for 1135 (\$-100.0) published at 1125 is 88.89% higher than 5min pd rrp published at 1120 (\$-900.0) - time of alert: 1128

## Financial markets

Figure 9 shows for all mainland regions the prices for base contracts (and total traded quantities for the week) for each quarter for the next four financial years.

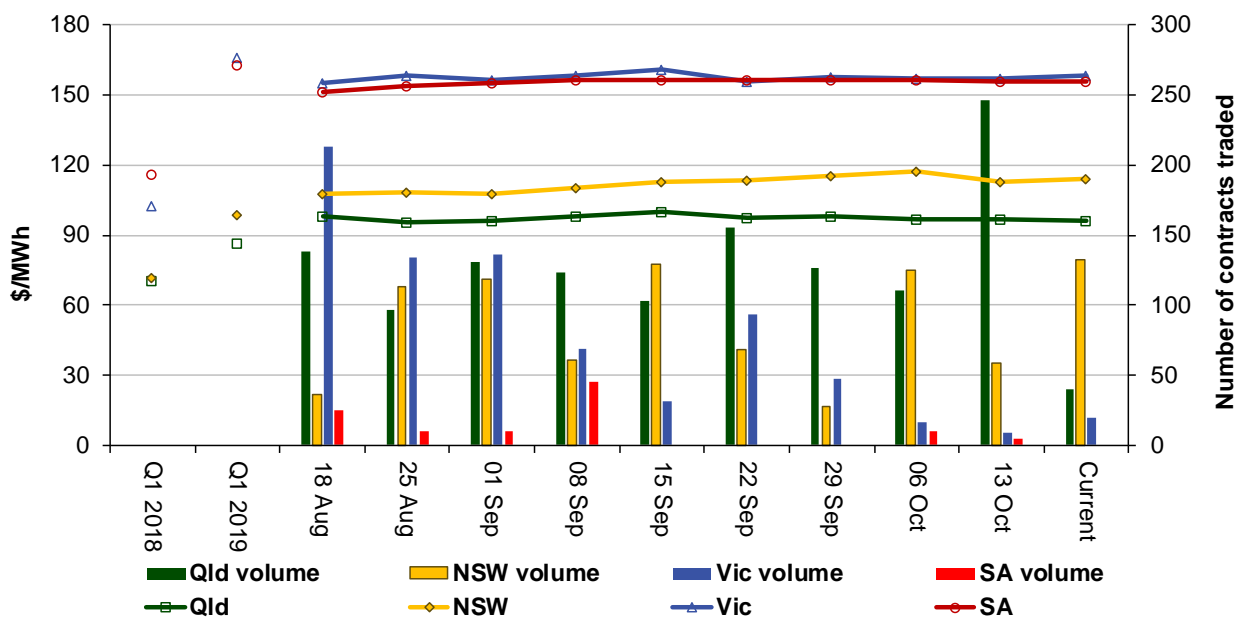
**Figure 9: Quarterly base future prices Q4 2019 – Q3 2023**



Source. ASXEnergy.com.au

Figure 10 shows how the price for each regional Q1 2020 base contract has changed over the last 10 weeks (as well as the total number of trades each week). The closing quarter 1 2018 and quarter 1 2019 prices are also shown. The AER notes that data for South Australia is less reliable due to very low numbers of trades.

**Figure 10: Price of Q1 2020 base contracts over the past 10 weeks (and the past 2 years)**



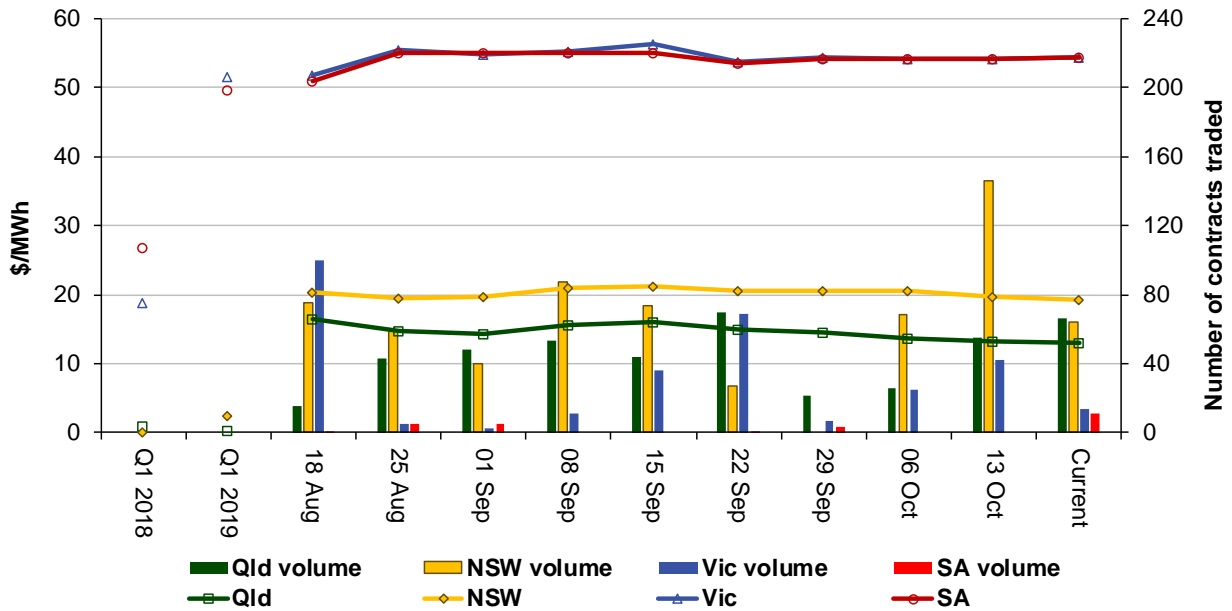
Note. Base contract prices are shown for each of the current week and the previous 9 weeks, with average prices shown for periods 1 and 2 years prior to the current year.

Source. ASXEnergy.com.au



Figure 11 shows how the price for each regional quarter 1 2020 cap contract has changed over the last 10 weeks (as well as the total number of trades each week). The closing quarter 1 2018 and quarter 1 2019 prices are also shown.

**Figure 11: Price of Q1 2020 cap contracts over the past 10 weeks (and the past 2 years)**



Source. ASXEnergy.com.au

Prices of other financial products (including longer-term price trends) are available in the [Industry Statistics](#) section of our website.

**Australian Energy Regulator**  
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