# Electricity and FCAS prices above \$5,000 per MWh

Victoria, Tasmania and South Australia, 13, 21 and 27 February 2024

**April 2024** 



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## Obligation

The Australian Energy Regulator (AER) has an obligation under the National Electricity Rules (energy rules) to monitor and report on significant price outcomes in the National Energy Market (NEM). The energy rules require us to produce a guideline for how we report significant price events.<sup>1</sup> Our guideline commits us to reporting whenever the 30-minute price exceeds \$5,000 per megawatt hour (MWh).<sup>2</sup>

30-minute prices rarely reach \$5,000/MWh, but with a market price cap over \$16,000/MWh prices can occasionally exceed this reporting threshold.<sup>3</sup> This reporting framework is intended to pick up these outlier events.

This report describes the significant factors contributing to 30-minute prices exceeding \$5,000 per MWh, considering market conditions, available generation capacity, network availability, as well as offer and rebidding behaviour.

The AER also analyses trends in prices and other market events through our quarterly wholesale markets report, available from <u>www.aer.gov.au/wholesale-markets/performance-reporting</u>.

<sup>&</sup>lt;sup>1</sup> AER, <u>Significant price reporting guidelines</u>, September 2022.

<sup>&</sup>lt;sup>2</sup> A trading interval is a 5 minute period and the spot price is the price for a trading interval. The 30-minute price is the average of 6 trading intervals.

<sup>&</sup>lt;sup>3</sup> The market price cap in 2023/24 is \$16,600 per MWh.

## Summary

This report covers high price events on 13 February 2024 in Victoria, Tasmania and South Australia, and subsequent price events in South Australia on 21 and 27 February that resulted because of events on 13 February.

The wholesale price of electricity exceeded \$5,000 per MWh for eleven 30-minute periods across the three days. Prices also exceeded \$5,000 per MW for two 30-minute periods in the Frequency Control Ancillary Services (FCAS) markets in South Australia on 13 February 2024.

Date	Region	Energy prices >\$5,000/MWh	FCAS prices >\$5,000/MW
13 February	Victoria	5	0
	South Australia	0	2
	Tasmania	3	0
21 February	South Australia	2	0
27 February	South Australia	1	0

#### Count of 30-minute high prices

Extreme weather on 13 February saw high temperatures lead to high demand, and in the early afternoon a severe storm saw the collapse of major transmission towers in Victoria. The sudden loss of the transmission lines resulted in the loss of a significant amount of generation and the price exceeding \$5,000 per MWh. It also placed significant stress on the remaining network which limited some generation from being dispatched. This coupled with the high demand led to involuntary load shedding in Victoria which automatically sets the price to the cap. Rebidding due to plant limitations and outages contributed to some high price intervals.

A consequence of these events was the potential loss of the Heywood interconnector and South Australia being electrically islanded. As FCAS cannot be transferred across Murraylink, South Australia was required to source its FCAS locally. There was a high requirement for lower 6 second and lower 60 second services and insufficient low-priced capacity offered in each service to meet the requirements. Rebidding of some capacity to high prices for technical reasons also contributed to price exceeding \$5,000 per MW in lower 60 second.

The loss of the transmission towers on 13 February in Victoria was still affecting prices in South Australia on 21 and 27 February. On these days, temperatures and demand were high, there was little wind generation, and South Australia was limited in its ability to import cheaper generation from Victoria due to the ongoing network damage. As a result, prices exceeded \$5,000 per MWh. Rebidding due to plant limitations contributed to some high price intervals on 27 February.

More detailed technical information on the 13 February events can be found in AEMO's report.<sup>4</sup> This report is designed to examine market events and circumstances that contributed to wholesale market price outcomes and is not an indicator of potential compliance issues or enforcement action.

<sup>&</sup>lt;sup>4</sup> AEMO Preliminary Report – <u>Trip of Moorabool-Sydenham 500 kV No.1 and No.2 lines on 13 February 2024</u>.

# **1** 13 February, Victoria and Tasmania

The wholesale price of electricity exceeded \$5,000 per MWh for 5 consecutive 30-minute periods in Victoria and 3 consecutive 30-minute periods in Tasmania on 13 February 2024 (Table 1.1). The high price was not forecast leading up to the initial event.

Date	Time	30-minute Victoria price (\$ per MWh)	30-minute Tasmania price (\$ per MWh
13 February	1.30 pm	8,456	8,376
	2 pm	16,600	16,600
	2.30 pm	16,600	16,600
	3 pm	16,600	Not a high price
	3.30 pm	7,800	Not a high price

#### Table 1.1 Summary of 30-minute high price events

A combination of factors drove these high prices:

- Extreme weather conditions caused the main transmission lines between South Australia and Victoria to fail leading to significant network stress. Constraints used to manage system security could not be satisfied and caused high prices for several intervals.
- As a result of the major transmission line outage, several generation units tripped and around 2,500 MW of low-priced generation was unable to make it to market.
- Hot temperatures leading to high demand and the loss of significant generation capacity led to involuntary load shedding in Victoria.<sup>5</sup> When load shedding occurs, the price is automatically set to the market price cap.
- Rebidding of capacity due to plant limitations and outages contributed to some of the high price intervals.

## **1.1 Market conditions**

On 13 February 2024, there was expected to be excess low-priced generation available in both Victoria and Tasmania even with high temperature driven demand.

At around 1.10 pm, extreme weather led to the loss of a major transmission line causing several unit trips. These units provided a significant amount of low-priced generation in the region.

Additionally, the network was stressed as generation output had to be routed through smaller transmission lines. Network constraints had to be used to manage system security and

<sup>&</sup>lt;sup>5</sup> In circumstances where there is insufficient effective supply to meet demand, the market operator instructs network operators to reduce demand by switching off sections of the grid to protect the electricity network from long-term damage and widespread consumer outages.

restricted the amount of generation that could flow across interconnectors, limiting Victoria's access to low-priced capacity from other regions.

Almost all generation available was dispatched across Victoria and Tasmania leading to similar price outcomes and units setting price in both regions (Figure 1.1 and Figure 1.2).

There was enough generation offered into the market but not enough effectively available to meet demand due to network constraints. This meant that load had to be shed and when that occurs the price is automatically set to the market price cap (\$16,600 per MWh).

Once this load had been shed in Victoria, there was less need for Tasmania to provide generation and the price dropped below \$5,000 per MWh in Tasmania.

We compared actual with forecast outcomes an hour prior (Table 1.2 and Table 1.3) and observed:

- the high price was only forecast in Victoria after damage to the transmission line occurred and was never forecast in Tasmania.
- actual demand was higher than forecast prior to load shedding (2.30 pm to 3.15 pm) in Victoria and was close to forecast in Tasmania.
- actual availability was lower than forecast mostly due to the loss of Loy Yang A in Victoria and was close to forecast in Tasmania.

Date	Time	Price	Price (\$/MWh)		nd (MW)	Availability (MW)	
		Actual	1 hr forecast	Actual	1 hr forecast	Actual	1 hr forecast
13 February	1.30 pm	8,456	66	7,206	6,619	9,170	10,785
	2 pm	16,600	79	7,096	6,996	7,464	10,763
	2.30 pm	16,600	104	7,532	7,479	7,984	11,227
	3 pm	16,600	10,264	6,044	7,985	8,010	8,690
	3.30 pm	7,800	771	5,184	7,739	7,746	8,689

#### Table 1.2 Victoria actual price, demand and availability compared to forecast

#### Table 1.3 Tasmania actual price, demand and availability compared to forecast

Date	Time	Price (\$/MWh)		Demar	nd (MW)	Availability (MW)	
		Actual	1 hr forecast	Actual	1 hr forecast	Actual	1 hr forecast
13 February	1.30 pm	8,376	55	1,203	1,104	1,950	1,982
	2 pm	16,600	54	1,208	1,152	1,969	2,002
	2.30 pm	16,600	70	1,139	1,202	2,033	2,000

As can be seen in figures (Figure 1.1 and Figure 1.2), almost all generation available was dispatched across Victoria and Tasmania.

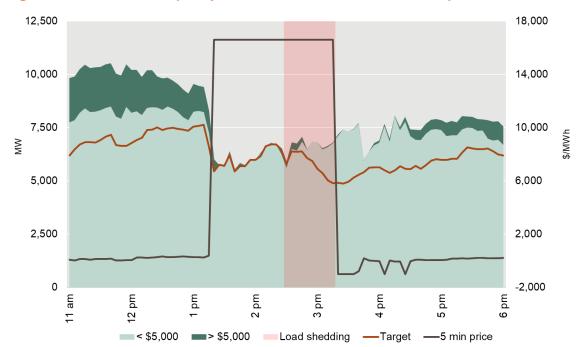
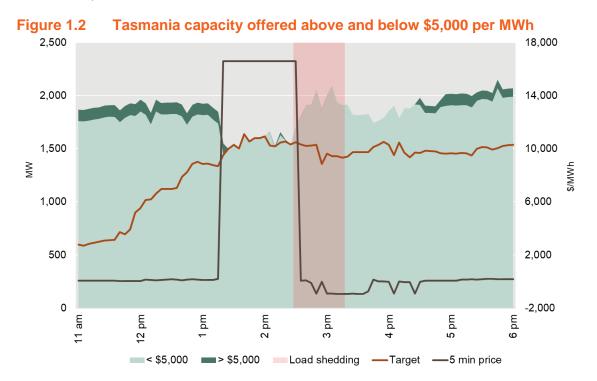


Figure 1.1 Victoria capacity offered above and below \$5,000 per MWh

Source: AER analysis using NEM data.

Note: Capacity available below \$5,000 per MWh refers to effective capacity, in Victoria. Load shedding refers to the period load was shed in Victoria.



Source: AER analysis using NEM data.

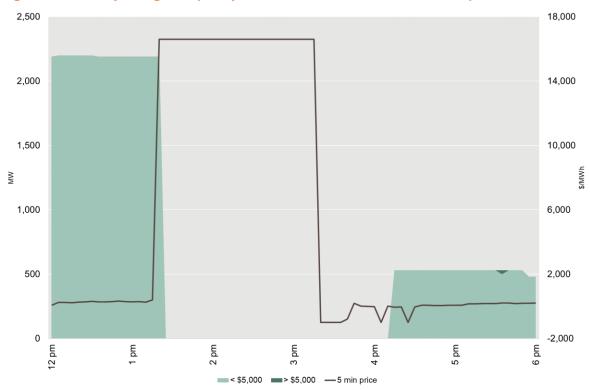
Note: Capacity available below \$5,000 per MWh refers to effective capacity, in Tasmania. Load shedding refers to the period load was shed in Victoria.

# 1.2 Extreme weather caused the loss of transmission lines and generation

High temperatures in Victoria drove higher than forecast demand with Melbourne's maximum temperature reaching 37°C.<sup>6</sup> In the afternoon, a severe storm cell developed with high winds reaching over 120 km/h near Avalon Airport.<sup>7</sup> At around 1.10 pm, the Moorabool-Sydenham No.1 and No.2 500 kilovolt (kV) lines tripped with reports that the transmission towers were on the ground.

Following the loss of the major transmission lines, several generation units tripped removing around 2,500 MW of low-priced generation in the region. The most significant of these is the loss of all four Loy Yang A units which had been providing 2,190 MW of low-priced generation. Dundonnell Wind Farm and Yaloak South Wind Farm also tripped meaning a further 300 MW was removed.

The sudden fall in low-priced generation at Loy Yang A coincided with the increase in the 5-minute price (Figure 1.3). See further discussion in section 1.5.





Source: AER analysis using NEM data. Note: Station capacity available above and below \$5,000 per MWh.

<sup>&</sup>lt;sup>6</sup> Bureau of Meteorology - <u>Melbourne, Victoria February 2024 Daily Weather Observations</u>.

<sup>&</sup>lt;sup>7</sup> AEMO Preliminary Report – Trip of Moorabool-Sydenham 500 kV No.1 and No.2 lines on 13 February 2024.

## **1.3 Network stress and constraints setting price**

The loss of a major transmission lines between South Australia and Victoria caused significant network stress as generation output had to be routed through smaller lines that were being congested or at risk of being overloaded. Numerous constraints had to be used to manage system security leading to all interconnectors into Victoria being constrained. Not all these constraints could be satisfied, which led to them violating and being the major price setter for the 1.20 pm, 1.25 pm and 1.30 pm dispatch intervals.<sup>8</sup>

All connecting regions were exporting into Victoria during the high price periods (excluding load shedding periods) although were limited due to network constraints (Figure 1.4). Flows on the:

- Victoria–New South Wales (NSW) interconnector were at an average of 657 MW. This is less than half its maximum nominal capacity of 1,350 MW from NSW to Victoria.
- Heywood interconnector were at an average of 271 MW. This is only slightly higher than half its nominal capacity of 500 MW from South Australia to Victoria.
- Basslink interconnector were at an average of 356 MW. This is around 60 per cent of its nominal capacity of 596 MW from Tasmania to Victoria.<sup>9</sup>



#### Figure 1.4 Interconnector targets and nominal capacities into Victoria

Source: AER analysis using NEM data.

Note: Interconnector targets and nominal capacity into Victoria.

<sup>&</sup>lt;sup>8</sup> Further information on constraints effect on prices can be found in the appendix of '<u>Electricity spot prices above</u> <u>\$5000/MWh South Australia, 1 December 2016'</u>.

<sup>&</sup>lt;sup>9</sup> AEMO, <u>Interconnector Capabilities for the National Electricity Market</u>, accessed 27 March 2023.

## 1.4 Load shedding and the market price cap

There was enough capacity offered into the market but not enough effectively available due to network constraints limiting generator's output. At 2.20 pm, the market operator declared there was not going to be enough effective supply to meet demand and instructed network operators to shed 300 MW of load in metropolitan Melbourne from 2.30 pm to 3.15 pm. When involuntary customer load shedding occurs, the price is set at the price cap.

Once load was shed in Victoria, reducing demand in the region, there was less need for Tasmania to provide generation as shown by the price in Tasmania falling from \$16,600 per MWh at 2.30 pm to \$49 per MWh at 2.35 pm (Figure 1.2).

The market operator issued instructions to begin the restoration of some of the interrupted load at 2.50 pm and the remainder at 3.10 pm.

## 1.5 Rebidding for technical reasons contributed to high prices

In Victoria, three significant rebids, all for technical reasons, contributed to the high prices. During these intervals, between 8 and 280 MW of high-priced capacity was needed to meet demand.

- At 1.15 pm, AGL Energy removed 2,190 MW of low-priced capacity at Loy Yang A due to the trip of all four units after the loss of the major transmission lines.
- At 1.29 pm, Snowy Hydro removed 152 MW of low-priced capacity at Laverton North as the station was unable to start due to plant issues. This was resolved for the 1.45 pm dispatch interval where most of that low-priced capacity was returned to market.
- At 11.07 am, Meridian Energy removed 60 to 66 MW of low-priced capacity at Mt Mercer Wind Farm due to unit maintenance.

# 2 13 February, South Australia (FCAS)

On 13 February 2024 the local price for Lower 6 seconds (L6) FCAS reached \$16,600 per MW in South Australia for the 5-minute intervals between 1.30 pm and 2.25 pm, inclusive. The local price for Lower 60 seconds (L60) FCAS exceeded \$5,000 per MW for dispatch intervals between 1.30 pm and 2.05 pm, inclusive. These 5-minute prices resulted in high 30-minute FCAS prices (Table 2.1).

Date	Time	30-minute SA L6 price (\$ per MW)	30-minute SA L60 price (\$ per MW)
13 February	2 pm	16,600	16,067
	2.30 pm	13,837	6,185

#### Table 2.1 Summary of 30-minute high FCAS local prices in SA

A combination of factors drove these high prices:

- Network issues stemming from the loss of the major transmission lines in Victoria.
- South Australia having to supply its own FCAS due to the risk of electrical separation from the rest of the NEM.
- Rebidding of capacity to prices greater than \$5,000 per MW for some intervals.

## 2.1 High local FCAS requirements

FCAS is used to maintain the frequency of the power system within set frequency operating standards and if a region is or is at risk of being electrically islanded then it must provide its own local FCAS.

Following the loss of major transmission lines in Victoria, AEMO invoked constraints managing the risk of the loss of the Heywood interconnector and electrically islanding South Australia. As FCAS cannot be transferred across Murraylink, South Australia was required to source its FCAS locally. The requirement for L6 and L60 services was above 200 MW for the 5-minute intervals between 1.30 and 2.25 pm but less than 200 MW of capacity priced below \$5,000 per MW was offered for the intervals priced at \$16,600 per MW in Table 2.2.

Time on 13/2/2024	Price L6 (\$/MW)	Price L60 (\$/MW)
1.30 pm	16,600	16,600
1.35 pm	16,600	16,600
1.40 pm	16,600	16,600
1.45 pm	16,600	16,600
1.50 pm	16,600	16,600
1.55 pm	16,600	15,000
2 pm	16,600	15,000
2.05 pm	16,600	16,600
2.10 pm	16,600	4,999
2.15 pm	16,600	4,999
2.20 pm	16,600	4,999
2.25 pm	16,600	4,999
2.30 pm	20	512

#### Table 2.2Prices for South Australia local FCAS during the high-price periods

Figure 2.1 and Figure 2.2 show for all the high-priced intervals, there was not enough capacity offered and effectively available below \$5,000 per MW (light green) to meet the requirements (orange line). A unit's capacity can be "effectively" reduced when considering what it is doing in the energy market as there is a trade-off between the markets.

Prices dropped below \$5,000 per MW at 2.10 pm in L60 after Origin Energy added in lowpriced capacity at Ladbroke and there was a drop in the requirement. However, the 30minute price for 2.30 pm in L60 was still above \$5,000 per MW due to price being at the cap at the 2.05 pm 5-minute interval and nearly \$5,000 per MW for much of the remainder of the 30-minute period.

As the network outages were unplanned, participants would not have been able to adjust their positions in anticipation of such outcome.

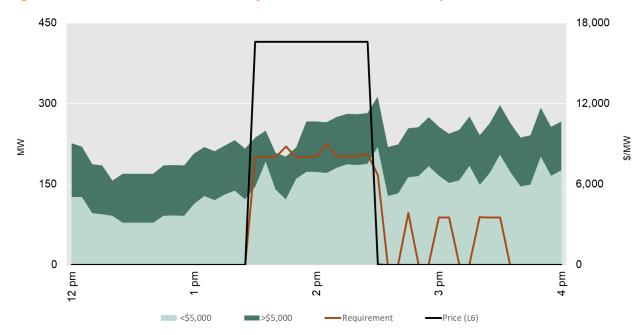


Figure 2.1 L6 Effective availability below and above \$5,000 per MW

Source: AER analysis using NEM data.

Note: Capacity available below \$5,000 per MW refers to effective capacity, in South Australia

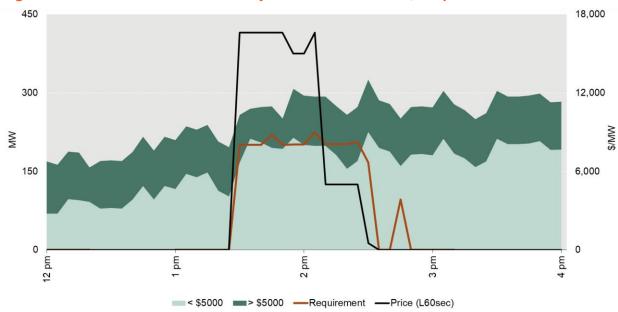


Figure 2.2 L60 Effective availability below and above \$5,000 per MW

Source: AER analysis using NEM data. Note: Capacity available below \$5,000 per MW refers to effective capacity, in South Australia

## 2.2 Rebidding contributed to high prices

Rebidding by one participant contributed to the price exceeding \$5,000 per MW for two dispatch intervals.

At 1.36 pm, effective from 1.45 pm until 2 pm, South Australian Water Corporation (SA Water) rebid 3 MW of L60 services from below \$100 per MW to \$15,000 per MW at the Adelaide Desalination Plant battery to reflect its state of charge.

During the 1.55 pm and 2 pm dispatch intervals, only 0.2 MW and 0.35 MW of capacity priced above \$5,000 per MW was needed for which the battery was enabled and set the price at \$15,000 per MW.

By 2.30 pm demand in Victoria reduced, many constraints stopped violating and the L6 and L60 requirements fell in South Australia. The amounts offered under \$5,000 per MW became sufficient to satisfy the requirements and prices fell.

The requirement for South Australia to provide its own FCAS was removed on 15 February. Ausnet, the Victorian network operator, reconfigured the network at the Moorabool Terminal station removing the risk of losing the Heywood interconnector.

# **3** 21 February, South Australia

On the 21 February, the loss of the transmission towers on 13 February in Victoria were still influencing prices in South Australia during high demand periods.

Drivers of the high prices were:

- Reduced imports across both interconnectors into South Australia and at times forced flows into Victoria.
- Temperatures of around 36 degrees was driving high demand.
- Little wind generation (around 275 MW).

Rebidding of capacity from low to high prices did not contribute to the high prices.

## 3.1 Market conditions

Prices (30-minute) reached \$15,697 per MWh at 6.30 pm and \$11,294 per MWh at 7 pm, prices were not forecast 1 hour ahead.

Table 3.1 shows:

- high levels of demand, due to temperatures reaching 36 degrees in South Australia
- Lower than forecast availability, especially for the 7 pm 30-minute period.

30 min period	Price (\$/MWh)		Dema	and (MW)	Availability (MW)		
	Actual	1 hr forecast	Actual	1 hr forecast	Actual	1 hr forecast	
6.30 pm	15,697	799	2,413	2,447	3,148	3,273	
7 pm	11,294	999	2,457	2,508	2,794	3,158	

#### Table 3.1 Actual price, demand and availability compared to the 1 hour forecast

## 3.2 Network limitations

Constraints were still in place to manage the network issues from the 13 February events in Victoria.

To keep the system secure flows were being forced out of South Australia and into Victoria across the Heywood interconnector. Imports into South Australia across the Murraylink interconnector were limited to, on average, 50 MW. This was due to constraints managing the possible loss of Murraylink. This limited South Australia's access to cheaper generation from Victoria and contributed to the high prices.

Flows were between 287 MW and 371 MW different to what was forecast 1 hour earlier (Table 3.2).

Interconnector	30-min period	Flows (MW)		Import li	Import limit (MW)		Export limit (MW)	
		Actual	1 hr forecast	Actual	1 hr forecast	Actual	1 hr forecast	
Heywood	6.30 pm	186	23	186	23	482	550	
Heywood	7 pm	183	-31	166	-31	465	550	
Murraylink	6.30 pm	-61	-185	-61	-185	-73	125	
Murraylink	7 pm	-41	-198	-37	-198	39	119	

#### Table 3.2 Actual and forecast flows and limits on Heywood and Murraylink

## 3.3 Low wind and rebidding limited availability

There was only around 275 MW of wind generation at the time of high prices out of around 2,800 MW installed in South Australia. Wind capacity is normally offered into the market at negative prices. This was lower than what was forecast 1 hour ahead.

There was also over 300 MW of capacity rebid unavailable during the 7 pm 30-minute period (Table 3.1). Around half of this capacity was offered at the cap by Engie at Mintaro and Port Lincoln and removed to avoid an uneconomic start but had no effect on price. Most of the remaining capacity was due to Origin Energy's Quarantine unit 5 failing to start with 75 MW priced at the price floor. This didn't affect price as over 270 MW of high-priced capacity was required to meet demand.

At the time of high prices there was between 12% and 25% of offered capacity priced above \$5,000 per MWh. Between 37 MW and 392 MW of high-priced capacity was needed to meet demand and forced exports (Figure 3.1).

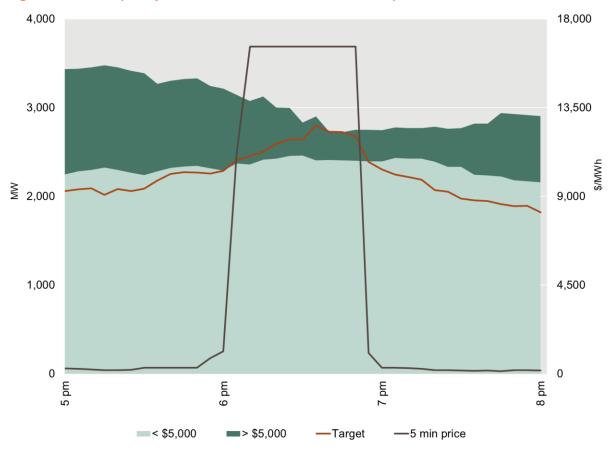


Figure 3.1 Capacity offered above and below \$5,000 per MWh in South Australia

Source: AER analysis using NEM data.

Note: Capacity available below \$5,000 per MWh refers to effective capacity, in South Australia

## 4 27 February, South Australia

The loss of the transmission towers on 13 February in Victoria were still influencing prices in South Australia during high demand periods.

Drivers of the high prices were very similar to those on 21 February:

- Reduced imports across both interconnectors into South Australia.
- Temperatures of around 38 degrees was driving high demand.
- Little wind generation (around 155 MW).
- Rebidding of capacity to high prices due to plant limitations.

## 4.1 Market conditions

The 30-minute price reached \$6,222/MWh for the 6.30 pm interval, this was due to the 6.20 pm to 6.30 pm 5-minute intervals being above \$8,900/MWh. The price was not forecast 1 hour ahead.

Table 4.1 shows:

- high levels of demand, attributable to temperatures reaching 38 degrees in South Australia
- availability was close to that forecast

#### Table 4.1 Actual price, demand and availability compared to the 1 hour forecast

30-min period	Price (\$/MWh)		Dema	and (MW)	Availabil	lity (MW)
	Actual	1 hr forecast	Actual	1 hr forecast	Actual	1 hr forecast
6.30 pm	6,222	202	2,487	2,421	2,908	2,958

## 4.2 Network limitations

Constraints were still in place to manage the network issues from the 13 February events in Victoria.

To keep the system secure, flows into South Australia across the Heywood interconnector were being limited to 264 MW, just over half of what was forecast 1 hour earlier. Imports into South Australia across the Murraylink interconnector were limited to 75 MW which again was just over half of what was forecast 1 hour ahead (Table 4.2).

Interconnector	30-min period	Flows (MW)		Import li	mit (MW)	Export limit (MW)	
		Actual	1 hr forecast	Actual	1 hr forecast	Actual	1 hr forecast
Heywood	6.30 pm	-264	-500	-277	-500	550	550
Murraylink	6.30 pm	-75	-146	-80	-165	-42	129

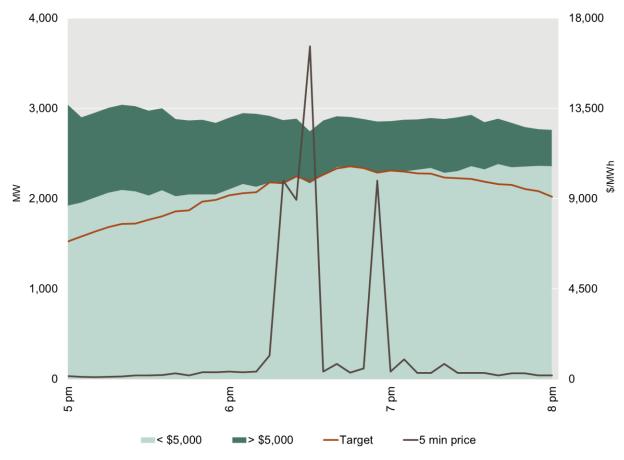
#### Table 4.2 Forecast and actual interconnector flows and limits

## 4.3 Low wind availability

There was only around 155 MW of wind generation at the time of high prices out of around 2,800 MW installed in South Australia. Wind capacity is normally offered into the market at negative prices. This was lower than what was forecast 1 hour ahead.

At the time of high prices there was between 21% and 25% of offered capacity priced above \$5,000/MWh. Between 16 MW and 22 MW of high-priced capacity was needed to meet demand.





Source: AER analysis using NEM data.

Note: Capacity available below \$5,000 per MWh refers to effective capacity, in South Australia

## 4.4 Rebidding contributed to high prices

Rebidding contributed to the high prices. EnergyAustralia rebid capacity at Hallett for technical reasons including ambient temperatures and the inability of some units to start in time. When temperatures are high generating units can be limited in their output as cooling systems are less efficient.

Over two late rebids EnergyAustralia rebid a total of 25 MW of capacity at Hallett from prices under \$400/MWh to the price cap due to ambient temperatures. This contributed to the 6.20 pm price reaching \$9,901 per MWh as only 16 MW of high-priced capacity was needed to meet demand. As a result of the high price, they then rebid 28 MW of capacity down to \$287 per MWh for the 6.25 pm 5-minute period and the price fell slightly to \$8,944 per MWh. For the 6.30 pm 5-minute period they shifted that 28 MW back up to the price cap, revising the startup time of two of the units that make up the Hallett station. As a result, they contributed to the price being set at \$6,600 per MWh for the 6.30 pm 5-minute period as only 22 MW of high-priced capacity was needed to meet demand.

# Appendix A – Significant rebids, 13 February

This table highlights rebids that contributed to the high prices on 13 February 2024 in Victoria. There were no significant rebids identified in Tasmania. Only the 5-minute intervals with a high price are included.

#### 1.25 pm and 1.30 pm (34 – 38 MW of high-priced capacity was needed)

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
1.15 pm	1.25 pm	AGL Energy	Loy Yang A	-2190	<19	N/A	020 Reduction in avail cap~204 unit trips
11.07 am		Meridian Energy	Mt Mercer WF	-60	-30	N/A	Unit maintenance – update station availability SL

#### 1.35 pm (34 MW of high-priced capacity was needed)

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
11.07 am		Meridian Energy	Mt Mercer WF	-66	-30	N/A	Unit maintenance – update station availability SL
1.15 pm	1.25 pm	AGL Energy	Loy Yang A	-2,190	<19	N/A	020 Reduction in avail cap~204 unit trips
1.29 pm	1.35 pm	Snowy Hydro	Laverton North	-152	-1000	N/A	13:28:59 P unit unable to start – plant issues – SL

#### 1.40 pm to 2.25 pm (8 - 280 MW of high-priced capacity was needed)

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
1.15 pm	1.25 pm	AGL Energy	Loy Yang A	-2,190	<19	N/A	020 Reduction in avail cap~204 unit trips

# Appendix B – Significant rebids, 27 February

This table highlights rebids that contributed to the high prices on 27 February 2024 in South Australia. Only the 5-minute intervals with a high price are included.

#### 6.20 pm (16 MW of high-priced capacity was needed)

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
5.46 pm	5.55 pm	EA	Hallett	21	380	16,600	Adj bands – revised ambient limits SL
5.56 pm	6.05 pm	EA	Hallett	4	287	16,600	Adj bands – revised ambient temp limit SL

#### 6.30 pm (22 MW of high-priced capacity was needed)

Submitted time	Time effective	Participant	Station	Capacity rebid (MW)	Price from (\$/MWh)	Price to (\$/MWh)	Rebid reason
6.23 pm	6.30 pm	EA	Hallett	28	287	16,600	Adj bands – revised start up profile GT3-1 and GT 2-1 SL