



Inquiry into the National Electricity Market

Addendum to the May 2022 report

17 June 2022

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Executive summary

Wholesale electricity prices have been elevated in 2022 and have increased substantially in recent weeks. These price rises are not captured in our May 2022 electricity market inquiry report, which reports on residential and small business billing data up until 31 December 2021. The ACCC acknowledges these price rises are significant and unprecedented, and in this addendum to our May report we set out the factors contributing to the current situation, the price impacts, and our proposed response.

High spot prices across the National Electricity Market led to the Australian Energy Market Operator (AEMO) capping prices at \$300/MWh in Queensland, New South Wales, South Australia and Victoria between 12 and 14 June 2022. This contributed to a number of generators withdrawing capacity from the market, prompting AEMO to use its powers to direct generators to provide electricity. On 15 June, AEMO decided to suspend the National Electricity Market wholesale market to ensure a reliable supply of electricity.

While current extreme wholesale electricity prices are not expected to persist, wholesale prices are likely to remain elevated compared to recent years. Forward markets for wholesale electricity are anticipating prices above \$150/MWh for much of 2022 across the eastern states, and longer in Queensland and New South Wales.

Recent extreme prices have been caused by a number of compounding factors. In Australia, planned outages at generators have reduced capacity available to respond to colder-than-average temperatures across the east coast, which has increased demand for electricity. Unexpected outages and fuel supply issues at a number of coal generators have exacerbated the situation and forced the market to rely on more expensive sources of generation, such as gas. In addition to these domestic challenges, the war in Ukraine has significantly increased international prices for gas and coal, which are key fuels for electricity generation in the National Electricity Market.

These increased costs will flow through to retail prices over time, with some retailers more impacted than others, depending on their risk management approach and exposure to the spot market. Price caps for regulated retail offers were set in May and come into effect on 1 July 2022. Regulated price caps for households will increase by up to 18.3% and for small businesses by up to 19.7% depending on the region.

Retailers have been impacted by the sudden and extreme increase in spot market prices. As at 15 June 2022, one electricity retailer has exited the market. A number of other retailers are foreshadowing very large price increases and encouraging their customers to seek supply elsewhere. Some retailers have also removed all their market offers and are only offering the standing offer to new customers.

The situation also has the potential to impact generators, depending on their contract commitments and their ability to access fuel on financially viable terms.

Australian regulators and governments all have a role to play in ensuring safe, reliable, and affordable energy. The ACCC's role in energy markets is in the context of the *Competition and Consumer Act 2010 (Cth)*, which includes specific provisions designed to prevent energy market misconduct (Part XICA), and to ensure compliance with the price cap on standing offers and fair advertising of prices to consumers through the *Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019* (Electricity Retail Code). The Competition and Consumer Act provides a framework for the ACCC to monitor and take action to preserve conditions for competition, where they can be preserved, and to ensure market participants, including consumers, are treated fairly. In addition to our general roles under the Competition and Consumer Act, and the reporting requirements of our current Inquiry into the National Electricity Market, the government has asked us to take an active role in monitoring and reporting on current energy market conditions.

1. Introduction

The ACCC submitted its May 2022 report of the Electricity Market Monitoring Inquiry to the Treasurer on 23 May 2022, as required under our terms of reference. Consistent with our established approach to our 6-monthly reporting, the May report focuses on an analysis of residential and small business billing data, reporting on data up until 31 December 2021.

The analysis in the May 2022 report remains important for understanding customer outcomes in 2021 and informing broader policy development (as part of a time series of data). However, the main report does not capture the significant changes in market outcomes being observed through the first half of 2022 and particularly through May and June.

This addendum to the May report, prepared in early June, sets out the ACCC's initial analysis of the current situation and its contributing factors.

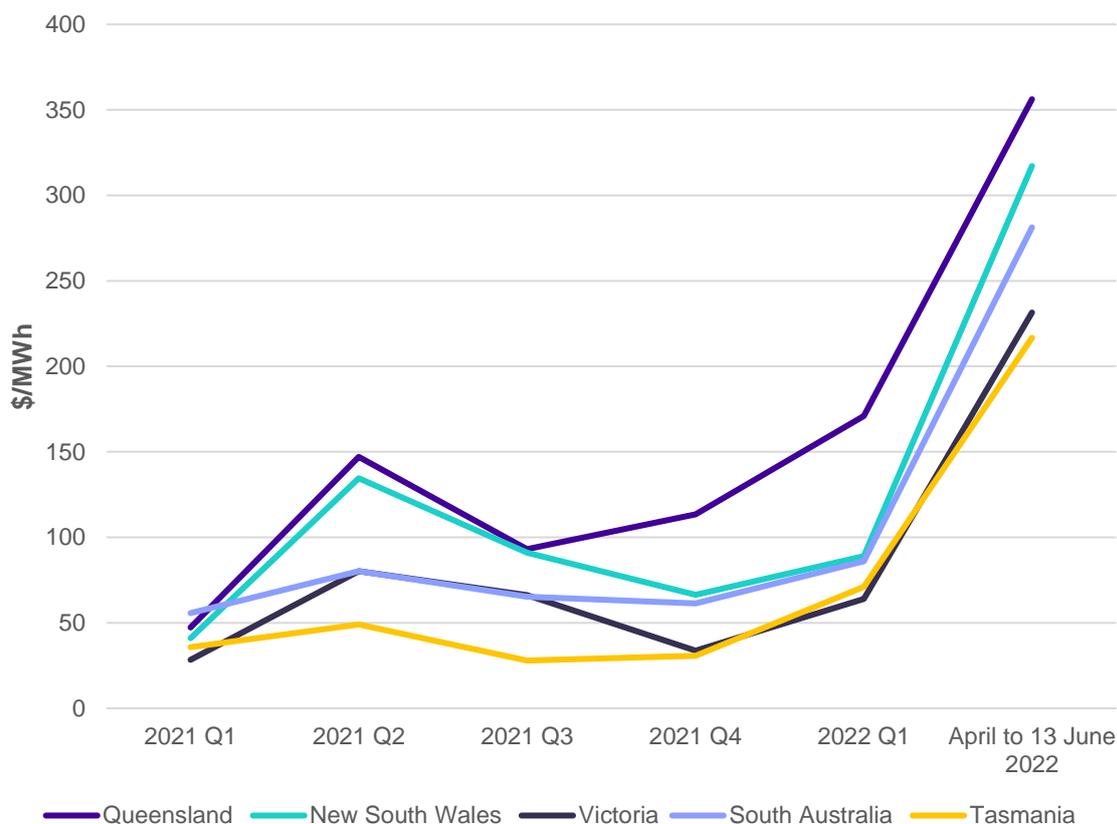
2. Recent changes in market conditions

2.1. Electricity wholesale spot prices

All wholesale electricity in the National Electricity Market is traded through the spot market, which sets the price for wholesale electricity every 5 minutes. Electricity spot prices across the National Electricity Market have been elevated in 2022, with particularly extreme price outcomes in May and June. The increases in wholesale spot market prices represent a significant reversal from relatively low prices recorded over the past 2 years.

Since the first quarter of 2022, spot price increases have accelerated significantly, as illustrated by figure 1.1. From 31 May to 13 June 2022, the volume weighted average spot price across the National Electricity Market ranged from \$341 to \$590/MWh. This is around 3.5 to 5.6 times higher than spot prices observed for quarter 1 2022, as shown in table 1.1.

Figure 1.1: Quarterly wholesale spot prices across National Electricity Market regions, quarter 1 2021 to current quarter



Source: ACCC analysis using Australian Energy Market Operator (AEMO) data. Figure shows the volume weighted average, quarterly, in real 2022 dollars.

Table 1.1: Volume weighted average spot prices (\$/MWh), National Electricity Market, 2019 to 13 June 2022

Period	QLD	NSW	VIC	SA	TAS
2019	80	94	132	130	100
2020	47	72	66	54	45
2021	98	83	53	65	35
2022 Q1	171	89	64	86	71
YTD 2022 (to 13 June 2022)	251	194	142	176	140
Fortnight to 13 June 2022	590	495	346	359	341

Source: ACCC analysis using AEMO data. Numbers show the volume weighted average spot price in real 2022 dollars.

Australian Energy Market Operator suspension of the wholesale market

On 15 June 2022, the Australian Energy Market Operator (AEMO) suspended the wholesale market in all National Electricity Market regions from 2:05pm AEST for the first time. This means AEMO will direct generators to dispatch electricity and will pay generators according

to a pre-determined pricing schedule (supported by a compensation regime). The suspension will be reviewed daily for each region.

AEMO acted because it determined that it had become impossible to operate the wholesale market while ensuring a secure and reliable supply of electricity for consumers in accordance with the NER.¹ AEMO indicated the market suspension was the best way to ensure a reliable supply of electricity as it would give:

- AEMO visibility of available generation capacity, allowing it to manage the balance of supply and demand in the system
- generators a clear and simple process to recover their costs
- AEMO the ability to dispatch electricity in a simple and methodical way.²

The suspension comes after electricity spot prices reached the Cumulative Price Threshold in several National Electricity Market regions.³ Reaching this threshold triggered AEMO to cap prices at \$300/MWh in accordance with the National Electricity Rules in the below regions from the following dates:

- in Queensland on 12 June 2022⁴
- in New South Wales on 13 June 2022⁵
- in Victoria and South Australia on 14 June 2022.⁶

Following the introduction of the price cap, some generation capacity was withdrawn from the market, contributing to a forecast shortfall in supply. To maintain power system security and reliability, AEMO used its powers under the National Electricity Rules to direct generators to provide electricity. AEMO directed 5GW of generation (approximately 20% of total National Electricity Market output) through direct interventions on 14 June 2022, and by 15 June it was no longer possible to reliably operate the spot market or the power system this way.⁷

The ACCC notes generators may have been motivated to withdraw capacity due to differences in the compensation regimes under the administered price cap and the AEMO directions process.⁸ The Australian Energy Regulator has responsibility for enforcing the National Electricity Rules, which set rules around generator behaviour. The ACCC will also be monitoring generator bidding behaviour for potential breaches of the Prohibiting Energy Market Misconduct spot market prohibition.

¹ Australian Energy Market Operator, [AEMO suspends the NEM Wholesale Market](#) [media release], Australian Energy Market Operator Limited, 15 June 2022, accessed 16 June 2022.

² Australian Energy Market Operator, [IN FULL: AEMO has taken the step of suspending spot market for wholesale electricity | ABC News](#) [press conference], ABC News, 15 June 2022, accessed 16 June 2022.

³ The Cumulative Price refers to the rolling total of 7 days of trading prices in a NEM region. The Cumulative Price Threshold is \$1,359,100 as at 15 June 2022. Australian Energy Market Operator, [Energy price and supply update – 13 June 2022](#) [media release], Australian Energy Market Operator Limited, 13 June 2022, accessed 16 June 2022.

⁴ Australian Energy Market Operator, [Energy price and supply update – 13 June 2022](#) [media release], Australian Energy Market Operator Limited, 13 June 2022, accessed 16 June 2022.

⁵ Australian Energy Market Operator, [9pm Update: Queensland's electricity supply stabilises, price caps in NSW](#) [media release], Australian Energy Market Operator Limited, 13 June 2022, accessed 16 June 2022.

⁶ Australian Energy Market Operator, [7am Update: Price caps administered across multiple states](#) [media release], Australian Energy Market Operator Limited, 14 June 2022, accessed 16 June 2022.

⁷ Australian Energy Market Operator, [AEMO suspends the NEM Wholesale Market](#) [media release], Australian Energy Market Operator Limited, 15 June 2022, accessed 16 June 2022; Australian Energy Market Operator, [IN FULL: AEMO has taken the step of suspending spot market for wholesale electricity | ABC News](#) [press conference], ABC News, 15 June 2022, accessed 16 June 2022.

⁸ Australian Energy Regulator, [Correspondence to market participants from AER Chair Claire Savage](#), Commonwealth of Australia, 14 June 2022, accessed 16 June 2022.

2.2. Contract prices

The prices of futures contracts for wholesale electricity traded on the Australian Securities Exchange allow us to assess market expectations for wholesale spot market prices.

Following the surge in wholesale spot prices in recent weeks, the price of futures contracts for the next 4 years has also risen sharply. Figure 1.2 shows quarterly base futures prices as at 3 June 2022 and compares this with expectations as at 31 March 2022 and 30 September 2021.

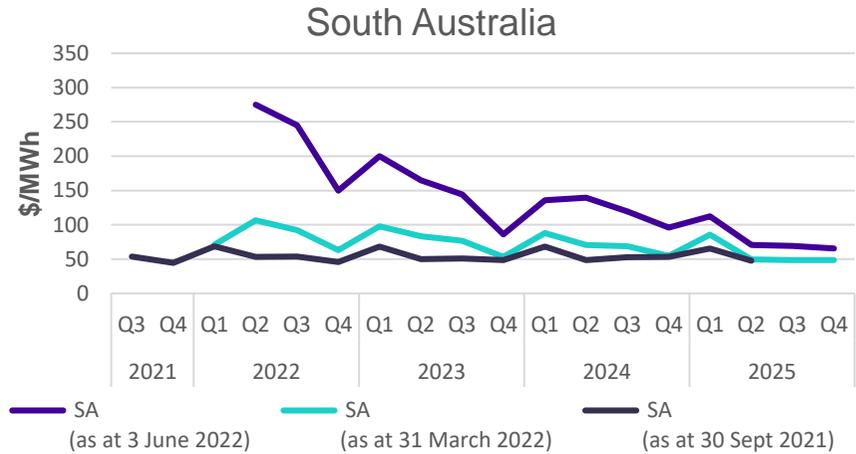
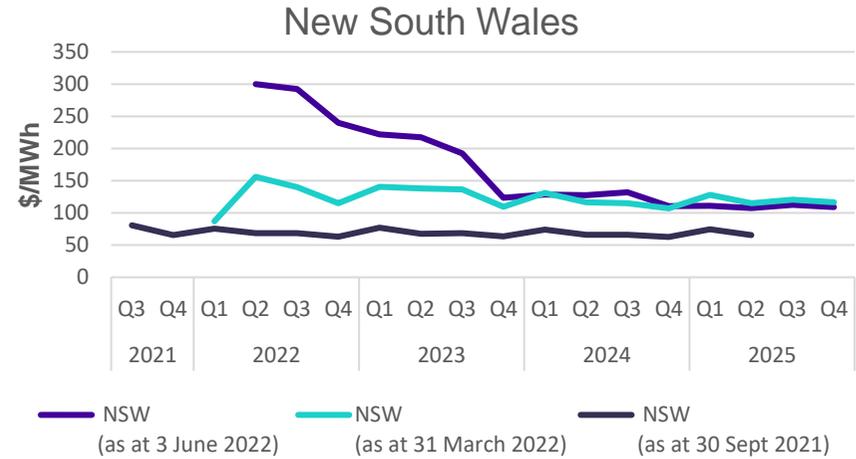
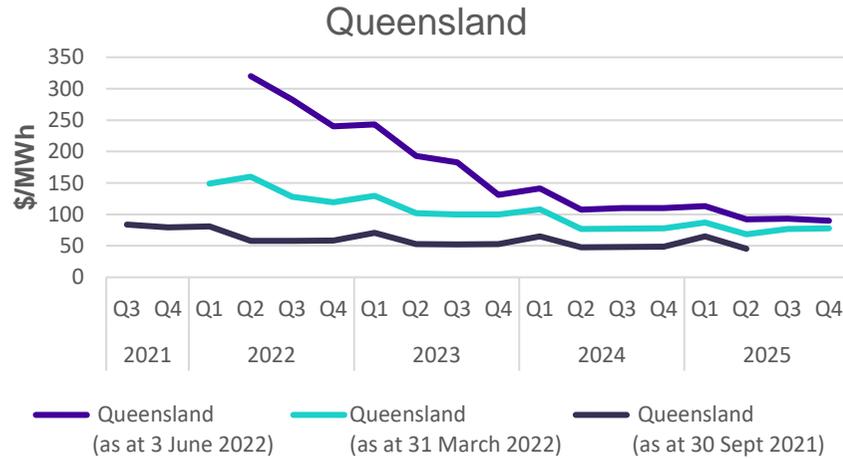
Since 31 March 2022, expectations of future wholesale prices have increased in Queensland, New South Wales, South Australia and Victoria by at least \$140/MWh. Future wholesale prices are expected to remain higher across most regions over the next 4 years. Relative to 31 March 2022, expected prices over the next 4 years as at 3 June 2022 were:

- 16–121% higher in Queensland
- 24–178% higher in Victoria
- 31–167% higher in South Australia.

In New South Wales, prices were 13–58% higher for 2023 but then are projected to return to the levels expected at 31 March 2022, though these are still well above expected prices from 30 September 2021.

Recent very high spot prices may also have reduced the volume of contracts traded. Access to appropriate hedge contracts is important for retailers to be able to manage spot price risk.

Figure 1.2. Quarterly base futures prices in Queensland, New South Wales, Victoria, and South Australia, quarter 3 2021 to quarter 4 2025



Source: ACCC and AER analysis using Australian Securities Exchange (ASX) data. Numbers show quarterly base futures prices in real 2022 dollars. Tasmanian contracts are not traded on the ASX.

2.3. Retail price changes

Retailers play an important role managing the risk of the National Electricity Market spot market to smooth volatile wholesale prices into predictable rates for consumers. Retailers generally do this by ‘hedging’ the cost of their electricity purchases through entering into financial contracts to purchase electricity at agreed rates at a certain point in the future.

This risk management means that retail consumers generally do not incur all the costs associated with short-term spikes in wholesale spot prices. Retailers’ approach to managing spot price risk varies. Retailers that are more heavily hedged (that is, those with arrangements to purchase a larger proportion of their required electricity load further into the future) will generally be less exposed to short-term changes in spot market prices than retailers who are more lightly hedged.

However, prolonged periods of elevated wholesale spot prices will drive increased electricity contract prices, which will eventually flow through to customers in the form of increased retail electricity prices. The degree and timing of price increases for customers will depend on the risk management approach taken by their retailer.

The recent very high wholesale prices appear to have significantly impacted a number of retailers. As at 15 June 2022, one electricity retailer has exited the market and a number of others have encouraged their customers to seek an alternative supplier. Others have pulled their market offers for new customers from the market. It is not yet clear whether these are temporary impacts or if more retailers will withdraw.

Regulated price caps

Retailers are also required to offer a ‘standing offer’, which acts as a safety net for customers who do not engage with the market to select another offer. Standing offer prices in New South Wales, south-east Queensland, and South Australia are capped by the Default Market Offer which is set by the Australian Energy Regulator. In Victoria, the cap is set by the Essential Services Commission and is called the Victorian Default Offer.

In May 2022, the Australian Energy Regulator and Victorian Essential Services Commission finalised revised standing offer price caps that come into effect on 1 July 2022.

Price caps in Victoria for households will increase by 1.2–9.2%, and for small businesses by 1.6–10.4%, depending on the region (in nominal terms).⁹ Price caps in other states are increasing by:

- 8.5–18.3% for New South Wales residential customers, and 10.0–19.7% for small business customers (in nominal terms)
- 11.3–12.6% for south-east Queensland residential customers, and 12.8% for small business customers (in nominal terms)
- 7.2–9.5% for South Australian residential customers, and 5.7% for small business customers (in nominal terms).¹⁰

⁹ Essential Services Commission, [Victorian Default Offer 2022–23 – Final decision](#), Essential Services Commission, 24 May 2022, accessed 16 June 2022, p 6.

¹⁰ Australian Energy Regulator, [Default market offer prices 2022-23 – Final determination](#), Commonwealth of Australia, 26 May 2022, accessed 16 June 2022, p 3.

3. Factors driving price changes

3.1. Gas prices

Since we prepared the May 2022 report, gas spot prices on the east coast have surged to unprecedented levels. Most gas is supplied under contracts.¹¹ However, gas-powered generators and other gas users needing to source additional gas from the spot market will have been exposed to very high prices. More expensive gas used for electricity generation will flow onto electricity prices.

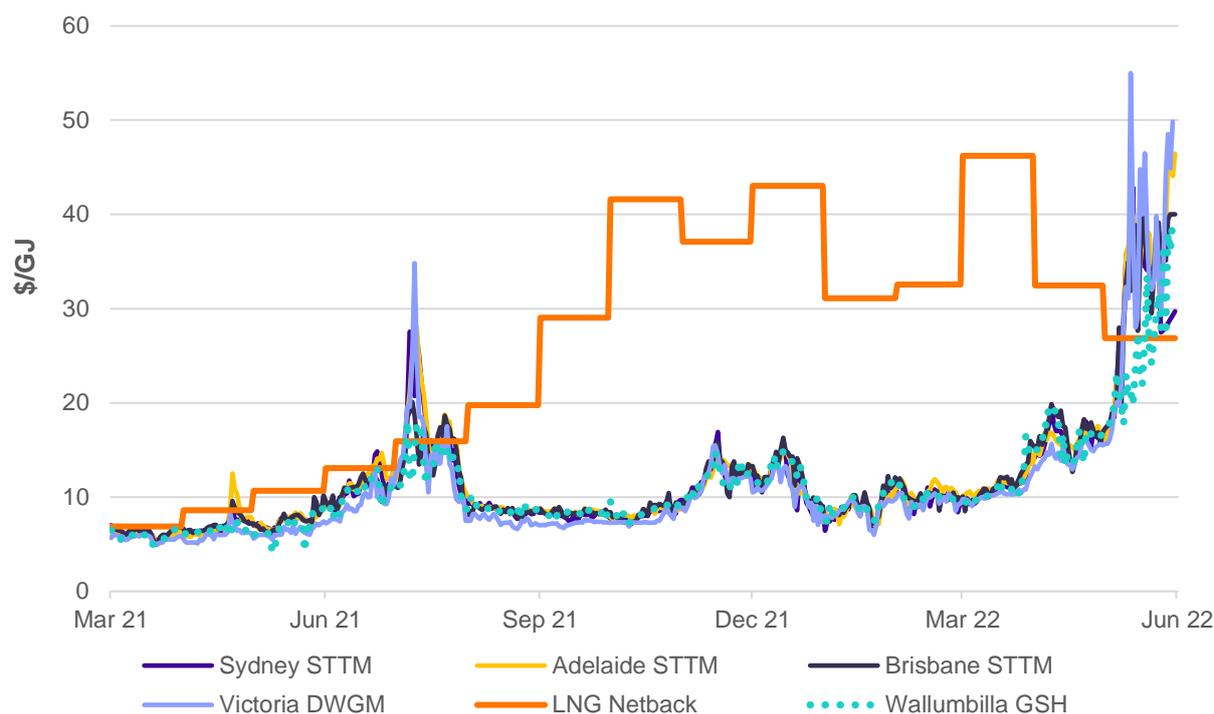
Figure 1.3 sets out the estimated liquified natural gas netback price calculated on 30 May 2022 as well as the domestic spot price of gas in the east coast gas markets. The liquified natural gas netback price is a measure of an export parity price that a gas supplier can expect to receive for exporting its gas. Domestic spot prices began increasing from the end of March 2022. Since early May 2022 domestic spot prices have risen to much higher levels, at least 2 to 5 times higher than in March 2022. Domestic prices are now well above international prices, shown by figure 1.3. The difference likely reflects a range of domestic conditions including significant cold weather along the east coast of Australia, generator outages, high coal prices influenced by volatile global commodity markets and the impact of renewables in the National Electricity Market.

AEMO introduced price caps of \$40/GJ in Sydney and Brisbane markets on 24 May 2022.¹² This means participants relying on the domestic gas market will have been shielded from price spikes to some degree, although \$40/GJ is still around 4 times more than the domestic spot prices in March 2022. AEMO also imposed a price of \$40/GJ in Victoria beginning 31 May 2022.

¹¹ Australian Energy Regulator, [State of the energy market 2021](#), Commonwealth of Australia, 2 July 2021, accessed 16 June 2022, p 192.

¹² Australian Energy Market Operator, [Gas market update – 7 June 2022 \[media release\]](#), Australian Energy Market Operator Limited, 7 June 2022, accessed 16 June 2022.

Figure 1.3: Liquefied natural gas netback and east coast gas market prices, 1 March 2021 to 30 May 2022



Source: ACCC analysis using AEMO and S&P Global Platts data. Figures show liquefied natural gas netback and east coast gas market prices in real 2022 dollars.

Note: GSH = gas supply hub. STTM = short term trading market. DWGM = declared wholesale gas market. GJ = gigajoule.

3.2. Coal prices

Australia exports significant amounts of coal internationally, which means domestic generators have to compete with international buyers to purchase coal. The Newcastle Coal Futures Price is a major reference price for coal across Asia. Over winter 2020, the Newcastle price hovered at around USD\$50/tonne. Over winter 2021 prices were higher, at USD\$100–160/tonne. Since early January 2022, Newcastle prices have exceeded USD\$200/tonne and since mid-May they have been around or above \$400/tonne (see figure 1.4). These very high prices are likely a result of the war in Ukraine and international customers seeking to source coal from suppliers other than Russia.

Coal-fired generators with long term coal supply contracts in place may not be significantly exposed to recent very high prices. However, if coal generators need additional coal volumes to increase output in response to recent supply issues in the National Electricity Market, they may have to purchase this coal at very high prices, which will flow onto electricity prices.

Figure 1.4: Newcastle coal futures prices for June 2022, June 2017 to June 2022



Source: ACCC analysis of Newcastle coal futures daily closing price. Figures show Newcastle coal futures prices for June 2022 in U.S. dollars.

3.3. Changes to the generation mix

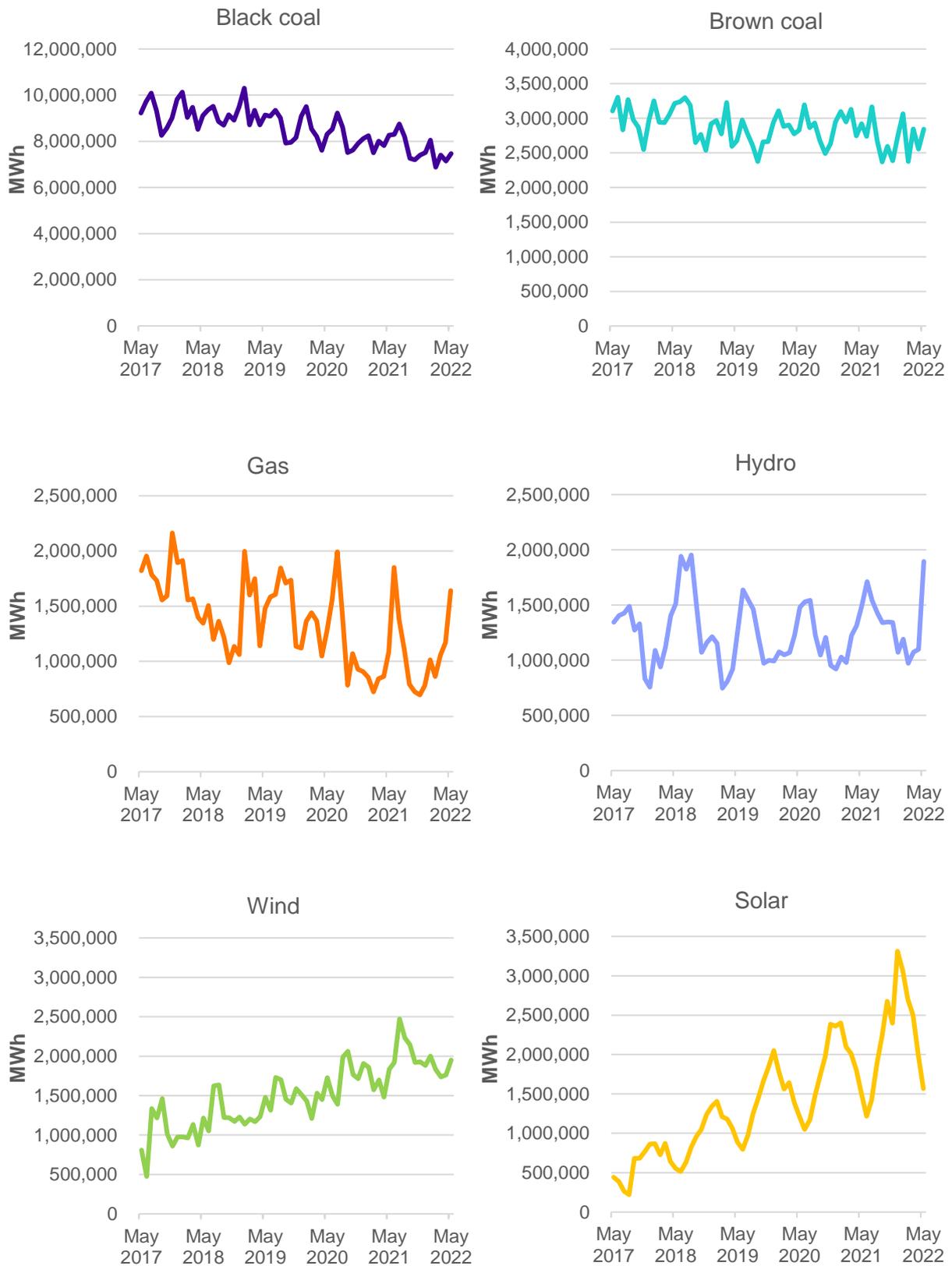
As shown in figure 1.5, coal-generated electricity output has trended downwards over the past 5 years. In 2022, black coal-fired generation recorded several of its lowest monthly outputs over the time series. This reflects the reduction in coal generation capacity available due to planned and unplanned outages, and some plant retirement.¹³ Nonetheless, black and brown coal continues to play an important role in the generation mix, accounting for over 60% of electricity produced in the NEM.

Increased gas output over the past 3 months to 12 June 2022 (figure 1.6) has partially alleviated the shortfall in coal-fired generation. However, this elevated level of supply is not unusual when compared to a similar period last year.

In May 2022, there was a sharp increase in hydro generation to levels previously recorded in May 2018 (figure 1.5). Other noticeable trends over the past 5 years include the sustained increase in renewable energy, particularly in solar and wind. These energy sources are subject to seasonality, with solar generation dependent on daylight hours and variability in wind generation due to weather.

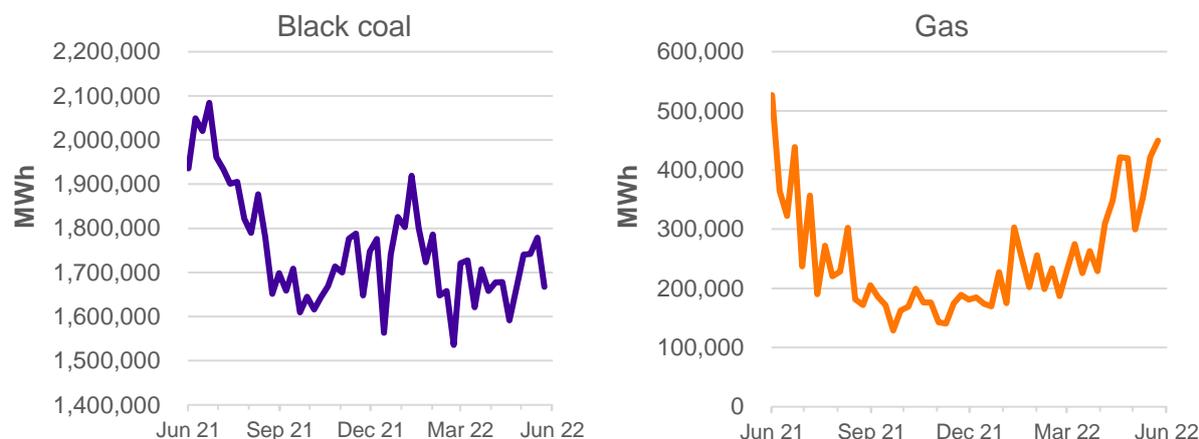
¹³ Australian Energy Regulator, [State of the energy market 2021](#), Commonwealth of Australia, 2 July 2021, accessed 16 June 2022, p 26.

Figure 1.5: Monthly electricity output from fuel sources in the National Electricity Market, 5 years from May 2017 to May 2022



Source: ACCC analysis using [OpenNEM data](#). Figures show monthly fuel type use over a 5-year period to May 2022.

Figure 1.6: Weekly black coal and gas electricity output in the National Electricity Market, 52 weeks from 14 June 2021 to 12 June 2022



Source: ACCC analysis using [OpenNEM data](#). Figures show weekly black coal and gas electricity output over a 52-week period from 14 June 2021 to 12 June 2022.

3.4. Weather events

Parts of Australia experienced extreme weather events in the first half of 2022. The La Niña weather cycle influenced Australia’s weather during summer and early autumn leading to severe flooding in areas of south-east Queensland and northern New South Wales.¹⁴ Queensland also had its wettest May since 1989 with further flooding in parts of the state.¹⁵

In the first quarter of 2022, higher average temperatures increased electricity demand in all National Electricity Market regions compared to quarter 1 2021.¹⁶ In particular, Queensland demand reached record highs multiple times in quarter 1 2022 as La Niña conditions contributed to relatively high humidity and elevated overnight temperatures.¹⁷

In late May, a cold front affected households in south-east South Australia, Victoria, Tasmania, and eastern New South Wales, travelling as far inland as southern Queensland and southern Northern Territory. The cold snap caused daytime temperatures to stay 3 to 6 degrees below average, driving up energy demand.¹⁸ Additionally rain and strong winds damaged electricity infrastructure and triggered power outages in New South Wales and Queensland.¹⁹

¹⁴ Australian Bureau of Statistics, [Weather and natural disaster impacts on the Australian national accounts](#), Commonwealth of Australia, 1 June 2022, accessed 16 June 2022.

¹⁵ Bureau of Meteorology, [Monthly Climate Summary for Queensland – Queensland in May 2022: 5th wettest on record, very warm nights](#), Commonwealth of Australia, 2 June 2022, accessed 16 June 2022.

¹⁶ Australian Energy Market Operator, [Quarterly Energy Dynamics Q1 2022](#), Australian Energy Market Operator Limited, April 2022, accessed 16 June 2022, p 3.

¹⁷ Australian Energy Regulator, [Wholesale markets quarterly – Q1 2022](#), Commonwealth of Australia, 26 May 2022, p iv, accessed 16 June 2022.

¹⁸ Bureau of Meteorology, [Strong cold front and low-pressure system to impact south-east Australia from today \[media release\]](#), Commonwealth of Australia, 29 May 2022, accessed 16 June 2022.

¹⁹ Bureau of Meteorology, [Monthly Summary for Australia – Australia in May 2022](#), Commonwealth of Australia, 1 June 2022, accessed 10 June 2022; H Parkes-Hupton, C Hildebrandt and M Cross, [Thousands left without power across New South Wales as rainy and windy conditions pound much of the state](#), ABC News, 31 May 2022, accessed 10 June 2022; C Read, [Homes without power, flights cancelled, damaging winds hit south-east](#), Brisbane Times, 31 May 2022, accessed 16 June 2022.

4. ACCC's role in promoting competitive and fair energy markets

Australian regulators and governments all have a role to play in ensuring safe, reliable, and affordable energy. The ACCC's role in energy markets is in the context of the Competition and Consumer Act, which includes specific provisions designed to prevent energy market misconduct (Part XICA), and ensuring compliance with the price cap on standing offers and fair marketing of electricity prices to consumers through the Electricity Retail Code. We are also undertaking our current Inquiry into the National Electricity Market under Part VIIA of the Act.

The Competition and Consumer Act provides a framework for the ACCC to monitor and take action to preserve the conditions for competition, where they can be preserved, and to ensure market participants, including consumers, are treated fairly.

To this end, we can monitor and investigate where we have concerns about anti-competitive conduct, or false or misleading representations, in energy markets. Specifically, we will monitor spot market bidding behaviour to identify any generators that may be bidding anti-competitively, including withdrawing supply or bidding dishonestly, fraudulently, or for the purpose of distorting or manipulating prices. We will also monitor the contracting behaviour of electricity generators to ensure they are not using their market power to anti-competitively restrict access to financial contracts. The ACCC will also take action if we have concerns that any retailer is in breach of the price cap, communication and advertising requirements set out in the Electricity Retail Code.

Reporting to the Australian Government

In addition to our general roles under the Competition and Consumer Act, and the reporting requirements of our current Inquiry into the National Electricity Market, the government has asked us to take an active role in monitoring current energy market conditions.

On 6 June 2022, the Treasurer wrote to the ACCC regarding current electricity and gas prices. The letter requested that we:

- ensure that the factors influencing prices in these markets are made fully transparent
- bring to the government's attention any need for regulatory change to ensure electricity and gas markets function properly for the benefit of all Australians
- investigate any concerns arising about anti-competitive or false and misleading conduct in electricity and gas markets and take appropriate action.

On 8 June 2022, the Energy Ministers released a communique which requested the ACCC, as part of its ongoing Inquiry into the National Electricity Market, report back to Energy Ministers in July 2022 on early views on the current situation.

We will progress this work within our existing electricity market monitoring inquiry. In light of the rapidly changing market conditions, and new requests from the government, we are still considering the scope and timing of our next inquiry report, which has traditionally been an analysis of retailer costs submitted to the Treasurer in November.