

Sparking conversation

Finder Energy Report



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Executive summary

The energy industry has become a controversial space in Australia in recent years. Extortionary price hikes have seen more and more Australian families struggling to keep up, with one in four now reporting energy bill stress. Our reliance on fossil fuel has become a highly contentious topic as the devastating effects of our carbon output are becoming tangible. And if that wasn't enough, Australia's ever-increasing energy export industry has also come under fire for increasing carbon emissions while still driving up energy bills.

This report intends to dissect each of these areas, while shedding light on consumer attitudes and lived realities. It provides an analysis of current trends in price, renewables and exports, and forecasts where we see these industries moving in the future. This report combines analysis of consumer attitudes from Finder's *Consumer Sentiment Tracker*, in addition to internal and third-party data.

Key findings:

- South Australia comes out on top for most expensive electricity
- Victoria is the most affordable state for electricity
- Finder predicts the price of electricity will be double the Consumer Price Index (CPI) by June 2023
- Just one in four Australians trust their energy retailer
- Over two-thirds of Australians are prepared to pay more for green power to help address their environmental impact
- The growth in energy exports over time correlates very closely to the price ratio against CPI



The cost of energy in Australia

The Australian electricity market explained

The electricity plans available to Australian households differ depending on where they are located. There are many more options for retailers present in New South Wales, Victoria, South Australia and parts of Queensland. In contrast, the number of energy plans available in Tasmania, the Australian Capital Territory, Western Australia and the Northern Territory are more limited.

New South Wales

Competition in the New South Wales electricity market began to increase in 2002 when more retailers were introduced. It wasn't until 2014 when the government took away price controls, which created a real financial incentive for customers to switch providers. As of October 2019, there are 30 retailers to choose from in New South Wales.

Queensland

The Queensland government deregulated the electricity market in South East Queensland (i.e. Brisbane, the Gold Coast, the Sunshine Coast, Toowoomba and Ipswich) in 2016 which allowed smaller retailers to offer competitive energy plans. In the rest of Queensland, the state government continues to control electricity pricing with Ergon Energy being the sole provider.

South Australia

Prices in South Australia are notoriously high but there have been many retailers to choose from since 2012. The exorbitant prices are mostly driven by the high cost of energy production in the state. As of October 2019, there are 19 retailers offering electricity plans in South Australia.

Victoria

Victoria was the first Australian jurisdiction to introduce full price competition back in 2009 and this has created one of the most competitive markets for energy plans in the country. As of October 2019, there are 19 retailers offering energy plans.

Tasmania

The Tasmanian government opened up the energy market in 2014, allowing other retailers to offer plans. Despite this, the state-owned Aurora Energy continues to be the main provider. It wasn't until 2019 that the first new retailer 1st Energy entered the market. This is probably because energy prices in Tasmania remain regulated so price competition is limited. More recently a "third" option, Catch.com.au, entered the Tasmanian market with its Catch Energy brand but this is a white-label product with the plans being managed by 1st Energy.

The Australian Capital Territory

The energy market in the capital is regulated by the government. While this can be positive because it puts a maximum price on what retailers are able to charge, it does also limit the number of retailers operating in the territory. Canberra intends to produce 90% of its electricity from renewable sources by 2020. As at October 2019, there are seven retailers offering residential plans in the Australian Capital Territory.

Western Australia

Energy customers in Western Australia are either considered to be "contestable" or "non-contestable". Contestable customers can choose their retailer, while non-contestable customers are only able to access plans from one provider. To be contestable, customers must live within the South West Interconnected System (e.g. Perth, Geraldton, Albany, Kalgoorlie) and use more than 50mWh of electricity each year. At this level of usage, it's mostly business rather than residential customers that have the ability to choose a plan from one of the nine providers on offer.

Northern Territory

Northern Territory has one of the least competitive energy markets in Australia. Despite being opened up to retail competition in 2010, the choice of energy retailers is still very limited. For most residents, there are only two choices for electricity providers: Jacana Energy (government-owned) and Rimfire Energy. Rimfire Energy is a relative newcomer to the Northern Territory energy market and is the only non-government energy retailer available to most customers in the Northern Territory.



So how do we compare globally?

Australian households pay a high price for energy compared to other countries. Globalpetrolprices.com has collected data on the price of electricity from 111 countries and, as at March 2019, Australia is one of the most expensive countries for electricity at \$0.35 per kilowatt hour, with 98 countries around the world having cheaper providers.

This is comparable to the United Kingdom (\$0.34) and New Zealand (\$0.32), although more than double that of the United States (\$0.17) and Canada (\$0.16). Some selected countries for comparison purposes below.

Country	Average price (kWh in AUD)	Rank
Burma	\$0.03	1
Tunisia	\$0.10	20
Argentina	\$0.11	31
Canada	\$0.16	47
United States	\$0.17	57
Costa Rica	\$0.21	61
Philippines	\$0.27	80
New Zealand	\$0.32	89
United Kingdom	\$0.34	95
Australia	\$0.35	99
Germany	\$0.49	110
Bermuda	\$0.56	111

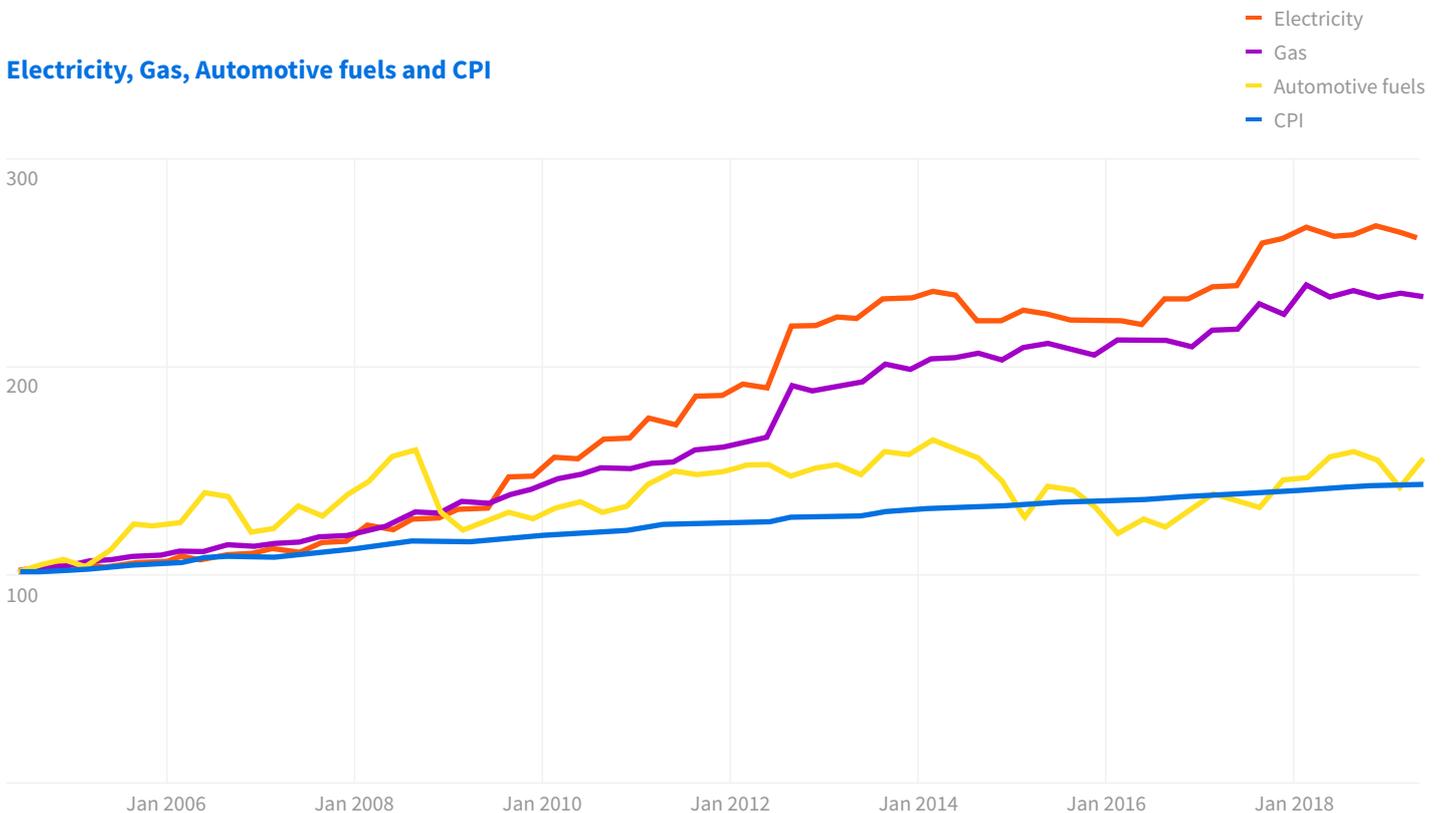
How does this stack up against inflation?

Price rises for gas and electricity in Australia have outpaced the Consumer Price Index (CPI) significantly since 2004. If this trend continues, the price of electricity will be double CPI by June 2023, with gas up more than 77%. There could be some respite for Australians with a recent Australian Energy Market Commission report forecasting price decreases for the underlying cost drivers of electricity bills by 2023. It is worth nothing energy retailers will need to pass these cost savings on for Australian consumers to benefit.

🔍 The Australian Consumer Price Index (CPI) is a measure of the average change in prices paid by households over time.

	2004	2018	2023
Electricity	102.8	265.2	324.2
Gas	102.3	232.2	286.5
Auto	106	154.3	162.0
CPI	101.1	141.6	160.3

Electricity, Gas, Automotive fuels and CPI

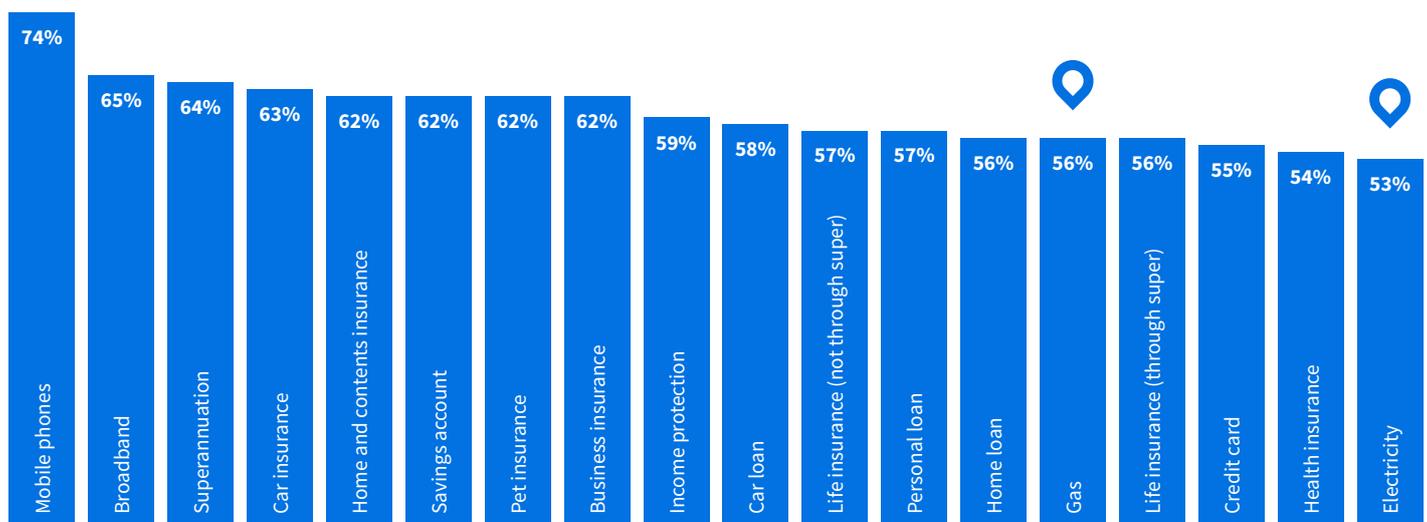


What is the burden on Australian households?

Australia is one of the most expensive countries for energy and some households aren't coping. Finder analysis of the latest Australian Energy Regulator Retail Performance Data revealed that during the last two years the number of Australians on financial hardship programs offered by energy retailers has increased by 17%.

	Number of households on hardship programs 2017/18	Average household debt
ACT	987	\$940
NSW	30,425	\$916
QLD	18,648	\$919
SA	15,521	\$1,694
TAS	3,251	\$1,304
Total	68,832	\$1,111

The Finder *Consumer Sentiment Tracker* asks Australians whether they believe they are getting value for money across 20 products and services. Electricity and gas feature in the bottom five for value perception, with electricity ranked in last place.



This perception held by the Australian public has also led to decreased confidence in the energy industry as a whole, with Finder’s research showing almost one in four don’t trust their energy retailer.

The level of trust closely mirrors the number of people who have made a change. So why don’t more people switch? Of the remainder, almost half say they are happy with their current provider, but there are many other perceived barriers to switching that may be holding some people back.

How much do you trust these institutions?

	A great deal	A lot	A moderate amount	A little	Not at all
Small banks	4%	16%	42%	27%	11%
Big banks	6%	14%	28%	24%	28%
Comparison websites	4%	15%	38%	27%	16%
The government	5%	13%	31%	26%	26%
Large tech	5%	11%	31%	29%	24%
Energy providers	4%	11%	35%	29%	22%
Telecommunications providers	4%	11%	36%	30%	20%
Mortgage provider	4%	10%	34%	30%	22%
Insurance providers	4%	10%	32%	31%	24%
Mainstream media	3%	8%	32%	31%	25%
Fintechs	3%	6%	29%	26%	37%



22% of Australians have switched their energy provider in the last two years.

What's the main reason you haven't switched energy providers in the last two years?

I'm happy with my provider	46%
It's too confusing to compare plans	13%
It's not a high priority for me	12%
There's only one provider and I can't switch	9%
I intend to, but don't get around to it	7%
I don't know how to find a better deal	5%
There's not enough choice for my home	5%
I find my current bill too confusing	3%

What would make you consider switching your provider for energy?

Opportunity for savings	43%
Lack of loyalty to my provider	13%
Dissatisfaction with my current provider	10%
Opportunity for better rewards	8%
Opportunity for better service	7%

The research also asked what would motivate Australians to switch providers, with the key reason being the opportunity to save money (43%).

In saying this, there is a difference between what households think they can save and what their actual savings will look like. A Finder survey of 1,006 Australians found that it would take a yearly saving of \$600 to convince Aussie households to switch electricity providers. While a report released by The Australian Competition and Consumer Commission this August revealed that Australian households switching from standing offers will save on average between \$130 and \$430 a year.

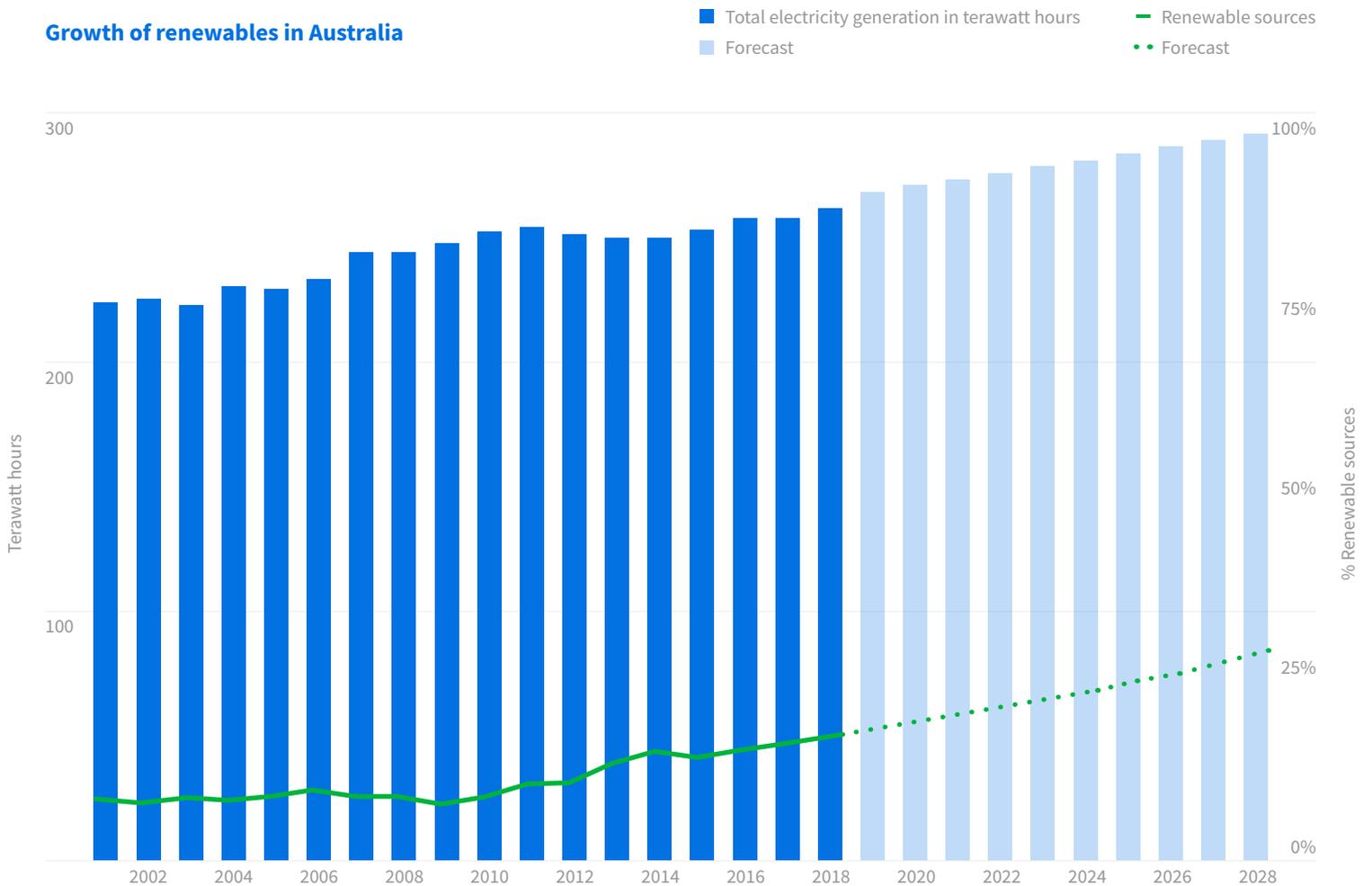
The state of renewables in Australia

The state of renewables in Australia

Renewables are a reliable source of energy and the growth of the industry will be paramount in stabilising the future of both Australia's economy and environment.

As at 2018, 17% of electricity produced in Australia was from renewable sources. A lot of the investment into renewable resources come from consumers and businesses opting into GreenPower, a government initiative that encourages contributions towards Australia's renewable energy industry. Last year, GreenPower customers helped with \$80 million being invested into the renewable energy industry¹. If this growth trend continues in a similar manner Finder predicts 25% of electricity production to be from renewable sources in 2026.

Growth of renewables in Australia



Finder's forecast shows the growth of renewables in Australia based on a consistent increase each year. It is important to keep in mind that there are a number of variables that could push Australia to adopt renewable power generation at a more rapid rate. For example the closure of coal-fired power stations and the reduced cost of renewable power generation and storage systems.

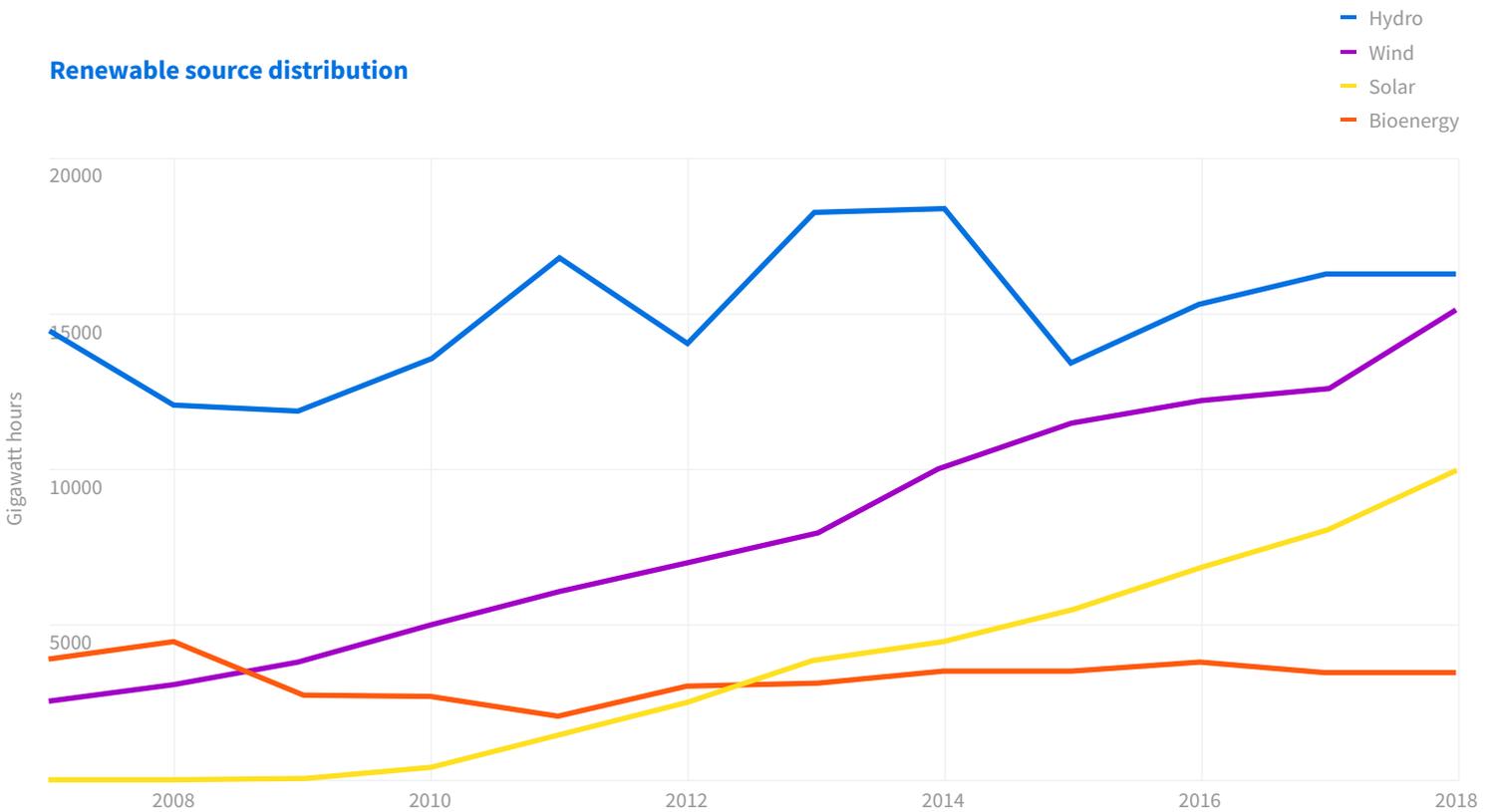
The primary renewable source for electricity production in 2018 was hydro, with over 16,000 gigawatt hours of energy produced accounting for over one third of renewable sources. But the distribution of renewable sources is changing quickly, with wind and solar power growing at the fastest rate.

- Hydro – 16,000 gigawatt hours/36% of production
- Wind – 15,000 gigawatt hours/35% of production
- Solar – 9,000 gigawatt hours/22% of production
- Bioenergy – 3,500 gigawatt hours/8% of production

If the growth continues at similar rates, wind energy is expected to become the primary renewable source in 2021 and by 2027 it is likely to produce around 25,000 gigawatt hours of energy. By this time solar will also have grown considerably with over 16,000 gigawatt hours, while hydro will have grown slightly with around 19,000 hours. Bioenergy production is expected to remain consistent.

Based on the volume of energy produced, renewables account for 16% of energy production in Australia. This is equivalent to 57 days in the calendar year.

Renewable source distribution



So where does Australia sit compared to other countries?

Finder has reviewed the most recent data available for 141 countries around the world² and found that Australia ranked 93rd for renewable energy production (14.5%). This is comparable to the United States at 14.7%, but somewhat behind the United Kingdom at 27.9% and a long way behind New Zealand, already at 83.9%.

There are four countries already at 100% renewable (Albania, Iceland, Paraguay, Democratic Republic of Congo), but 6 countries were still at 0% in 2016 (Bahrain, Libya, Oman, Saudi Arabia, Trinidad and Tobago, Turkmenistan). Some selected countries for comparison purposes:

Country	Electricity production from renewable sources (%)	Global rank
Albania, Iceland, Paraguay, Democratic Republic of Congo	100%	1
Norway	97%	8
New Zealand	84%	14
North Korea	76%	18
Canada	65%	28
Cameroon	52%	43
Chile	43%	51
United Kingdom	28%	65
China	25%	72
United States	15%	92
Australia	15%	93
South Africa	3%	119
Singapore	2%	126
Bahrain, Libya, Oman, Saudi Arabia, Trinidad and Tobago, Turkmenistan	0%	135

Does this reflect consumer sentiment?

12 million Australians worried about their carbon footprint.

Australia's lag in the uptake of renewables is incompatible with the concerns of the wider population, with a Finder survey of 6,078 respondents revealing that 66% of Australians are concerned about their impact on the environment. Opinions vary slightly by state, with Western Australia and New South Wales having the highest levels of concern (19% extremely concerned each) and South Australia with the lowest at 14%.

Some differences also exist by gender, notably with a significant amount more men having no concern at all compared to women.

The most obvious trend is by generation, with a clear pattern of mindfulness about carbon footprint increasing. Younger generations have higher levels of concern about the impact they are having on the environment.

How concerned are you about your personal carbon footprint?



	Female	Male
Concerned	74%	59%
Not concerned	36%	41%

	Gen Z	Gen Y	Gen X	Baby boomers
Concerned	77%	71%	64%	59%
Not concerned	23%	29%	36%	41%

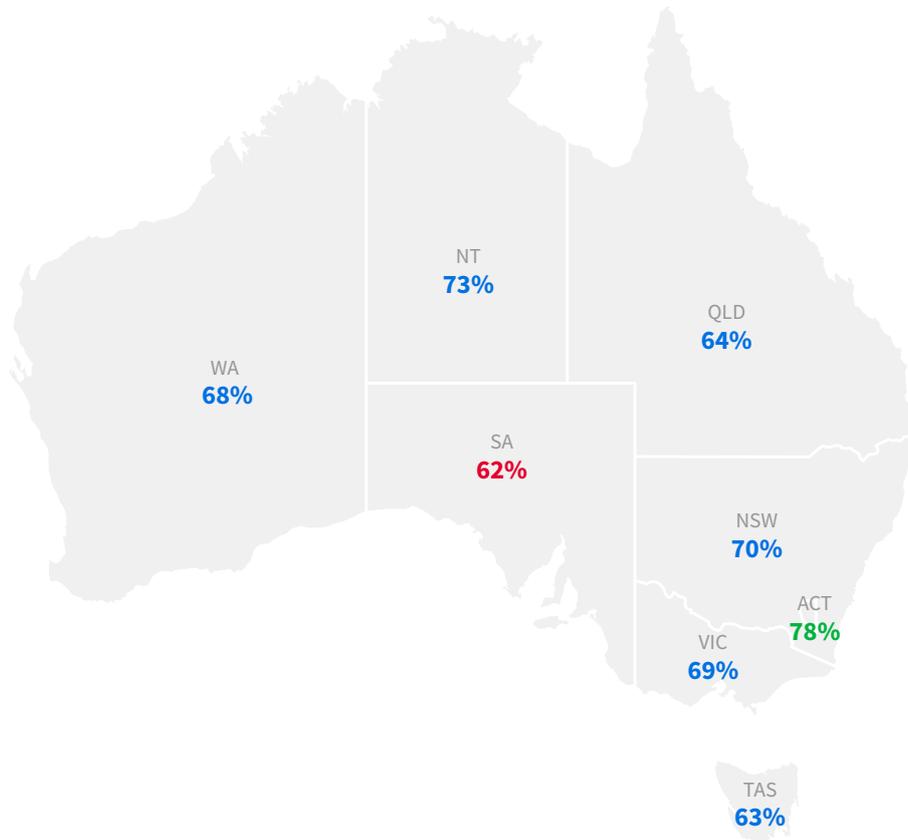
Australians are actively engaging in various activities to reduce their own impact on the environment, with 85% of people having taken action in a variety of ways – the most popular effort being through the reduction of the use of plastic.

Over two thirds of Australians are prepared to pay more for green power to help address their environmental impact and reduce their carbon footprint. Aussies are happy to spend on average \$13.10 more per week to go green, with gen Z again being the generation happiest to pay a bit extra.

How have you reduced your environmental impact?

Reduced plastic use (e.g. using reusable coffee cups, shopping bags, etc)	63%
Using energy-efficient lighting	44%
Using energy-efficient appliances	43%
Driving less/use public transport more	28%
Reduced the amount of meat I consume	24%
I have solar panels on my house/apartmen	23%
Reduced the number of flights I have taken	11%
Buying green power	9%
Opting to pay for carbon offset when making purchases	6%
I drive a hybrid/electric car	5%

Which state or territory is the most willing to pay for green power?



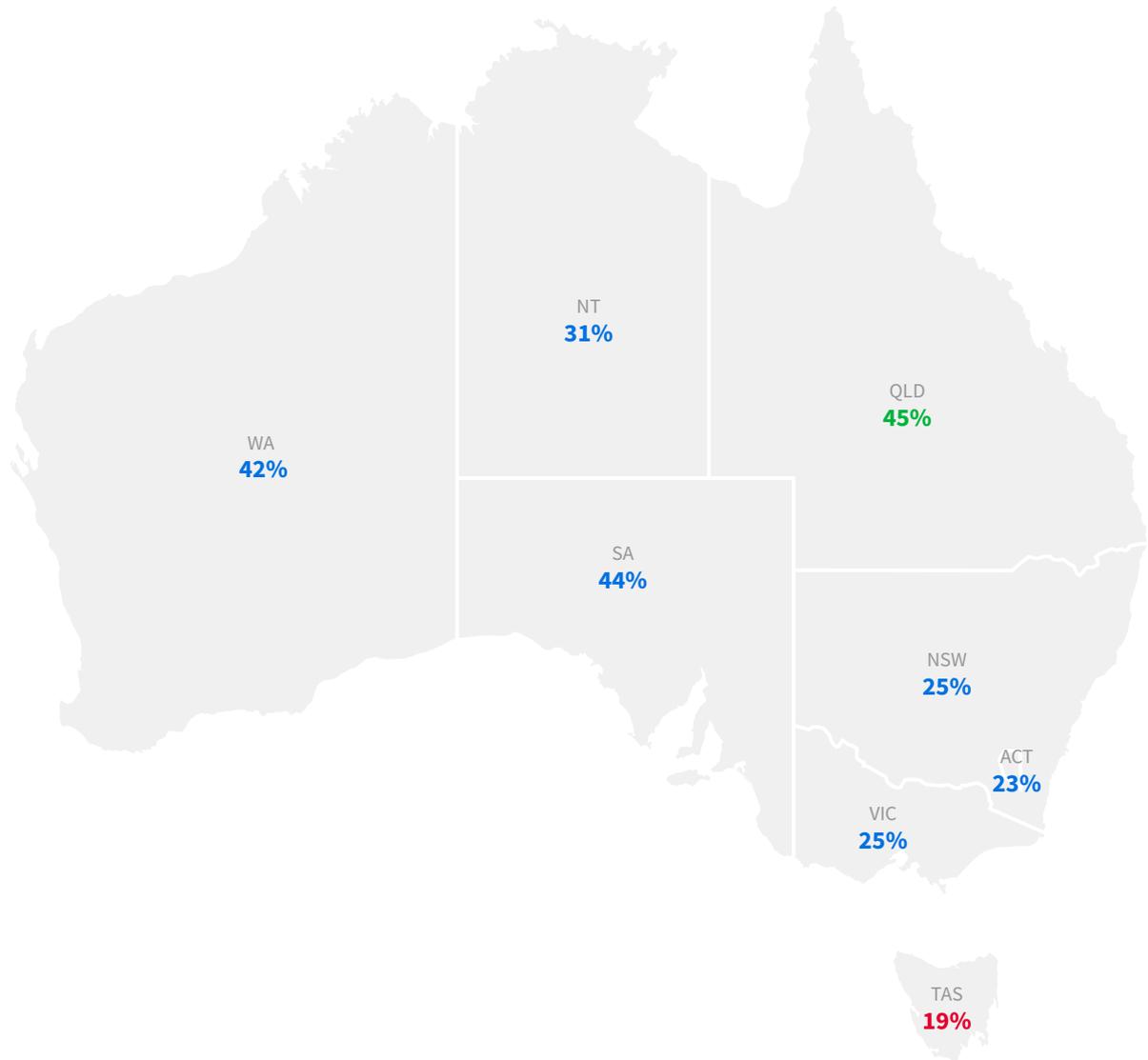
Where does solar come in?

As the cost of installation and battery storage decreases we expect the adoption of small-scale solar installs to rise. The **top 10** and **bottom 10** postcodes for penetration of solar installations across the country are below. ³

Small Unit Installation Postcode	Primary suburb*	State	Installations Quantity Total	Total number of properties	Penetration
3678	Wangaratta	VIC	1,150	1161	▲ 99%
4516	Elimbah	QLD	977	1186	▲ 82%
4514	Woodford	QLD	1,488	1846	▲ 81%
2390	Narrabri	NSW	2,174	2777	▲ 78%
5330	Pooginook	SA	823	1066	▲ 77%
5172	Willunga	SA	978	1296	▲ 75%
5171	McLaren Vale	SA	1,437	1915	▲ 75%
4507	Bongaree	QLD	4,860	6986	▲ 70%
4552	Maleny	QLD	2,195	3199	▲ 69%
4563	Cooroy	QLD	2,096	3074	▲ 68%
2008	Chippendale	NSW	64	1077	▼ 6%
7467	Queenstown	TAS	66	1146	▼ 6%
6722	South Hedland	WA	152	2702	▼ 6%
2025	Woollahra	NSW	97	1739	▼ 6%
2016	Redfern	NSW	105	1896	▼ 6%
2127	Newington	NSW	56	1118	▼ 5%
2010	Surry Hills	NSW	140	3478	▼ 4%
6753	Newman	WA	60	1525	▼ 4%
2021	Paddington	NSW	158	4322	▼ 4%
6751	Mount Sheila	WA	13	1156	▼ 1%

Overall, across Australia, approximately one third of households have had small-scale solar installations as at September 2019, with the highest penetration in Queensland and the lowest being Tasmania. Both New South Wales and Victoria are behind the national average, with each state at 25% of households with a small-scale solar install.

Solar penetration Australia

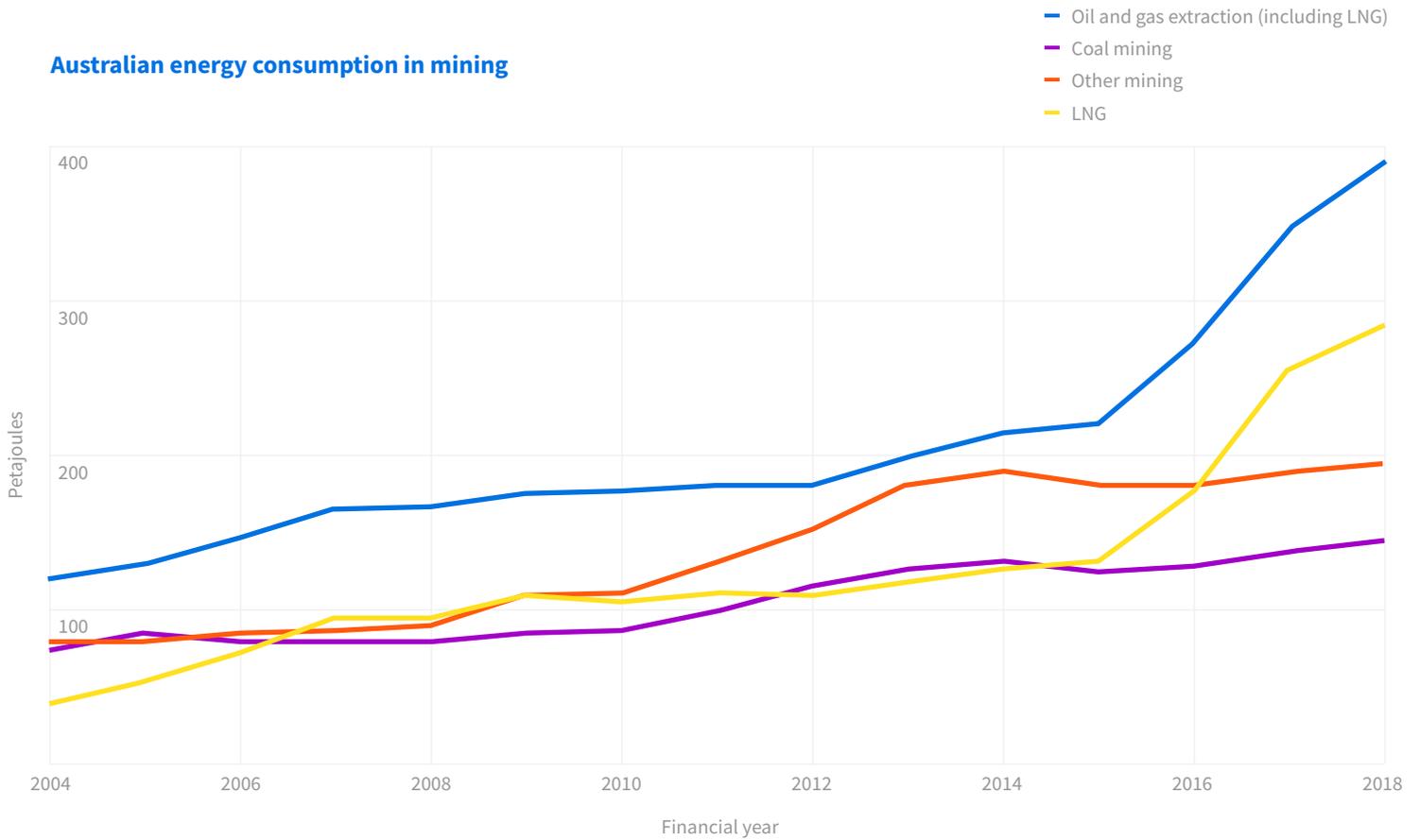


Energy exporting in Australia

Energy exporting in Australia

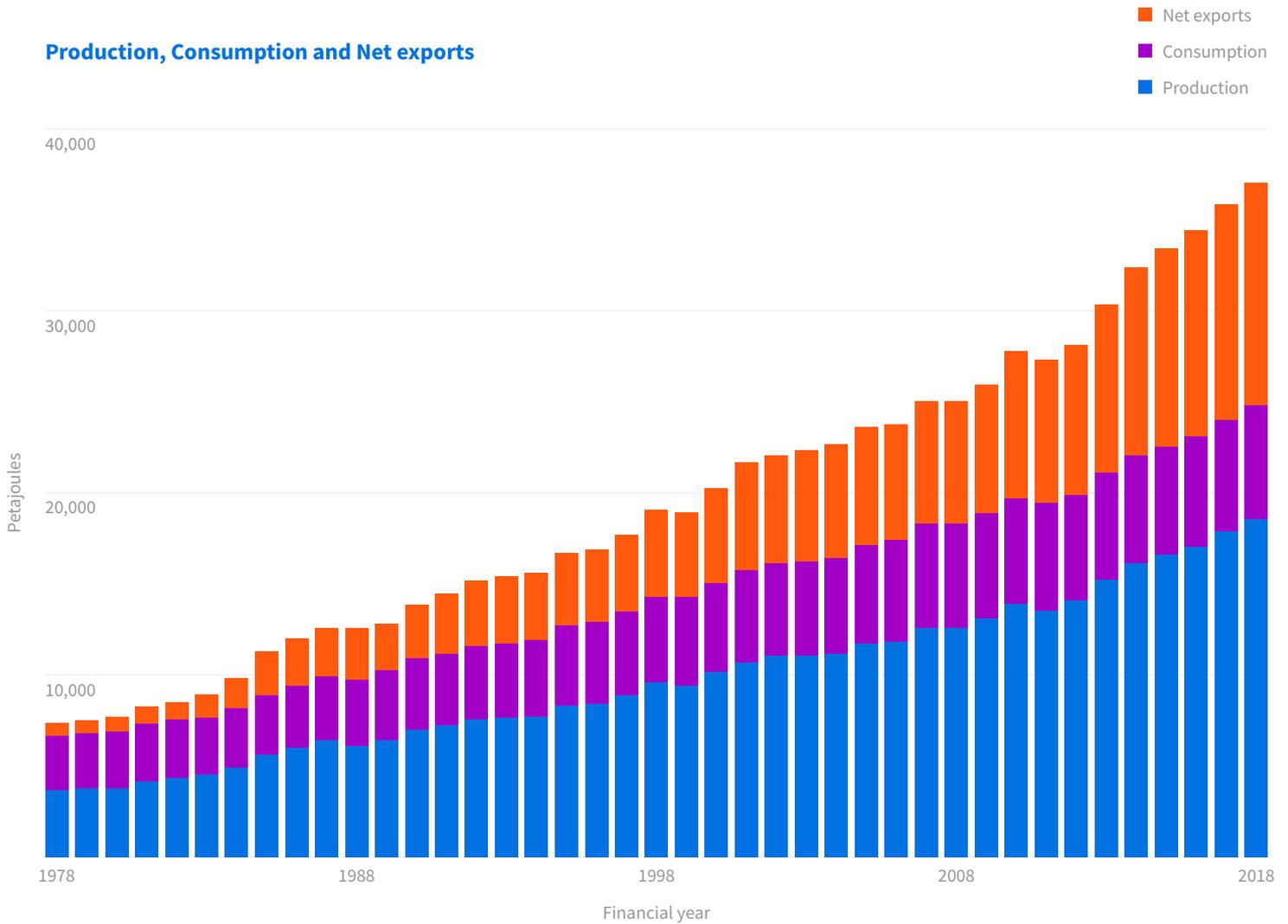
Australia is a significant exporter of energy around the world. The Australia Institute reported in August 2019 that Australia is the third largest exporter of fossil fuels, behind only Russia and Saudi Arabia. It is one of the largest exporters of uranium holding an estimated 46% of the world's uranium resources⁴ and is ranked sixth in liquified natural gas (LNG) exports.

Australian energy consumption in mining



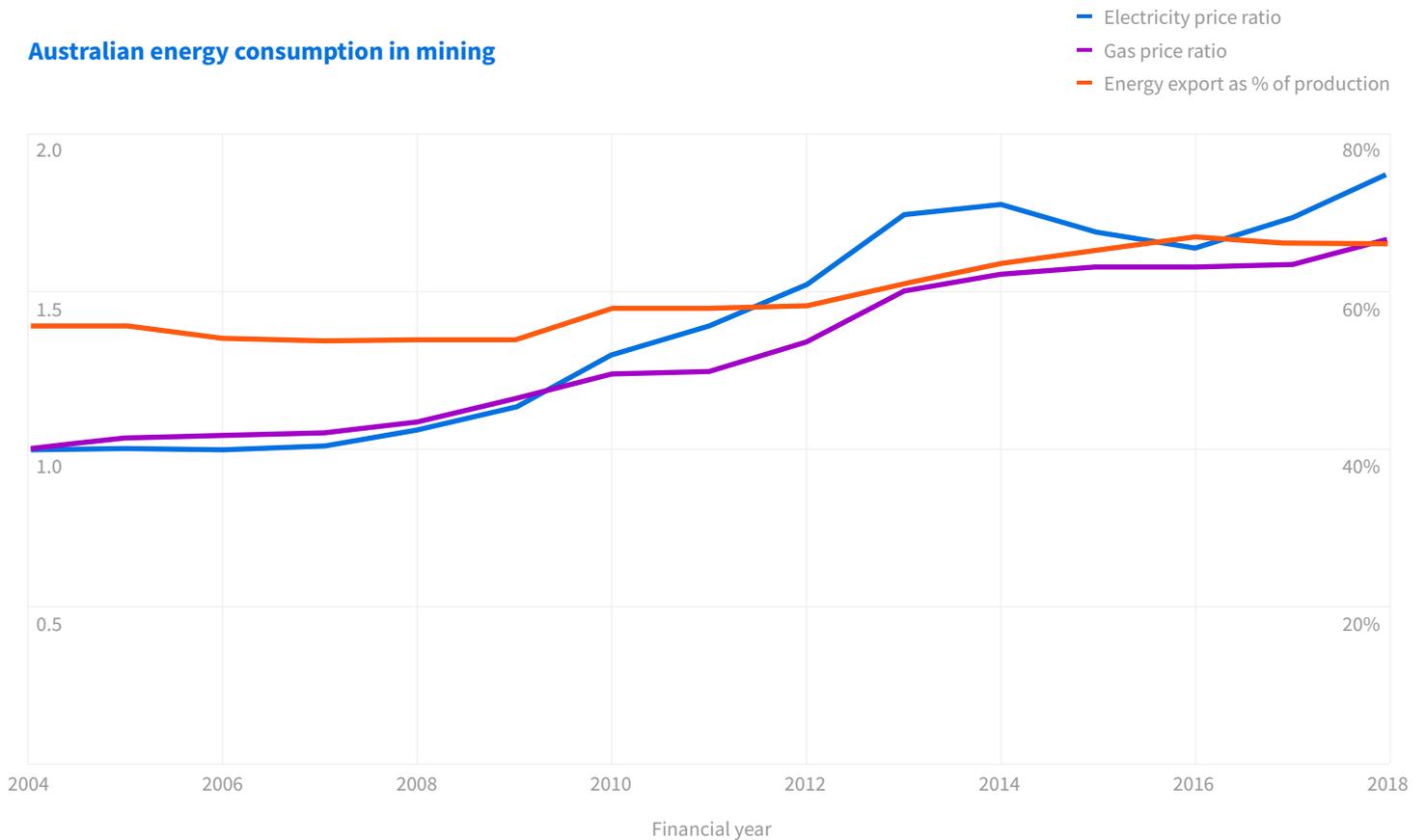
Export as a percentage of production in Australia is one of the highest in the world and has been growing steadily since the 1970s. In 2000 we exported 5% more energy than we consumed and in 2018 we exported 99% more⁵ – contributing to a considerable amount of the country’s overall exports. Energy accounted for 72% of Australia’s exported goods overall in 2018, worth \$278 billion⁶. If this growth trend of exports continues, by 2030 we expect to export 3 times as much energy as we consume.

Production, Consumption and Net exports



While energy exports are valuable for the economy overall, they can be linked to rising prices for Australian consumers for the domestic supply – the growth in exports over time correlates very closely to the price ratio against CPI for electricity and gas

Australian energy consumption in mining



What does this mean for consumers

This correlation has led to exorbitant energy bills, which are causing one in four Australians stress. Second only behind a mortgage or rent as one of the top financial strains impacting households in Australia today, according to Finder’s *Consumer Sentiment Tracker*.

And it is the older generations that feel this stress the most:

- Baby boomers - **33%**
- Gen X - **30%**
- Gen Y - **22%**
- Gen Z - **16%**

Energy bill stress is causing one in 10 Australian households to cut down on other expenses, such as groceries and going out – a further 14% have been pushed to call their provider and ask for a better deal.

Conclusion

There is no doubt that switching energy plans and providers is complicated for many Australian households. While the energy industry is facing scrutiny around pricing, the impact of fossil fuels and the rise of renewables, and how export plays into both these areas, there are hopes that finding a better energy deal will become easier for the average consumer soon.

One upcoming development that is likely to improve understanding of this complicated industry for everyday Australians is the introduction of the Consumer Data Right (CDR) reforms. Announced by the Australian Competition and Consumer Commission (ACCC), the reforms aim to improve consumers' access to energy data in order to find cheaper services and improve transparency.

With the majority of Australians holding concerns about their carbon footprint, it's clear that the environmental impact of our energy usage is an important factor for consumers. While good progress has been made in using renewable sources, and several initiatives are in place to help support this, our findings show that there is still a lot more work to do in Australia to bring our green energy efforts up to parity with many other developed countries.

For more information please contact the Finder PR team:
aupr@finder.com

