

About The Australia Institute

The Australia Institute is an independent public policy think tank based in Canberra. We conduct original research that contributes to a more just, sustainable and peaceful society. We barrack for ideas, not political parties or candidates. Since its launch in 1994, the Institute has carried out highly influential research on a broad range of economic, social and environmental issues

Our Philosophy

New dilemmas confront our society and our planet. Unprecedented levels of consumption co-exist with extreme poverty. Through new technology we are more connected than we have ever been, yet civic engagement is declining. Environmental neglect continues despite heightened ecological awareness. A better balance is urgently needed. The Australia Institute's directors, staff and supporters represent a broad range of views and priorities. What unites us is a belief that through a combination of research and creativity we can promote new solutions and ways of thinking.

Our Purpose

The Institute publishes research that contributes to a more just, sustainable and peaceful society. Our goal is to gather, interpret and communicate evidence in order to both diagnose the problems we face and propose new solutions to tackle them.

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Climate of the Nation 2022

Tracking Australia's attitudes towards climate change and energy

Contents

- 4 | Key Findings
- **6** Foreword
- **7** Executive Summary
- 10 | Aim + Approach
- 11 Attitudes Towards Climate Change
- **18** | Electricity Transition
- **23** Transport
- **40** Mining
- **46** Climate Integrity
- **49** Fossil Fuel Subsidies
- **52** Cost of Climate Inaction
- **55** Climate Action
- **60** Demographic Snapshot
- **62** Conclusion

Acknowledgements

Climate of the Nation is the longest continuous survey of community attitudes to climate change in the country. The Australia Institute acknowledges the dedicated work of the Climate Institute, which produced the report from 2007-2017.

The Australia Institute is delighted to carry forward this benchmark report for the fifth year and wishes to thank the following people and foundations for their support:

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- Australia Institute monthly donors

The Australia Institute also thanks Boundless and the Australian Museum for their partnership on the Climate of the Nation 2022 report.

Key Findings

83%

of Australians are concerned climate change will result in droughts and flooding affecting crop production and food supply 83%

of Australians are concerned climate change will result in more bushfires **80%**

of Australians agree that climate impacts should be considered by the environment minister when approving future fossil fuel projects **79%**

of Australians support a phase out of coalfired power stations

76%

of Australians rank solar in their top three preferred energy sources, compared to 17% for coal, 21% for gas, and 22% for nuclear **75%**

of Australians are concerned about climate change

71%

support Australia hosting a United Nations Conference of the Parties (COP) on climate 69%

think state governments should take a leading role in action on climate change

67%

of Australians think governments should be responsible for checking the accuracy of net zero and carbon neutral claims of companies 62%

of Australians support a levy on fossil fuel exports to fund climate adaptation 61%

of Australians support a windfall profits tax on the oil and gas industry, compared to 19% who oppose 58x

is the factor by which Australians overestimate gas and oil industry employment as a proportion of total employment

57%

of Australians support stopping new coal, oil and gas projects, in line with the International Energy Agency pathway 14%

think taxpayers should pay the costs of responding to climate change, compared to 48% who say fossil fuel companies should bear the financial burden 8%

of Australians do not want fossil fuel subsidy money spent elsewhere (like healthcare, cost of living and climate action) 6%

of Australians suport using taxpayer funds to subsidise new coal mines

Key Findings — Transport

82%

of Australians support connecting major capital cities in Australia via a high-speed rail **80%**

of Australians support modifying and designing walkable streets for all **79%**

of Australians support the Federal Government providing funding to help bus drivers and mechanics transition to use electric buses **79%**

of Australians support a long-term strategy to provide vocational training to ensure there is a skilled workforce for the manufacturing of electric vehicles (EVs)

78%

of Australians support a government funded network of fast charging stations for EVs **76%**

of Australians support requiring new apartment blocks to include charging stations for EVs 75%

of Australians think that the Government should have industry-specific emissions reduction targets **75%**

of Australians support electrifying state bus fleets by 2030

69%

of Australians support the introduction of a national transport decarbonisation strategy **68%**

of Australians support the introduction of national fuel efficiency standards in line with those in Europe 65%

of Australians think Australia should speed up uptake of EVs to reduce reliance on imported oil 64%

of Australians support requiring all new car sales in Australia to be zero emissions vehicles by 2035

62%

of Australians support a national subsidy scheme for bikes, e-bikes and cargo bikes **62**%

of Australians think that governments should introduce policies to encourage mode change from cars to active and public transport **61%**

of Australians support making current EV subsidies and tax incentives available for e-bikes 20%

is the proportion of government transport spending people think should go to active transport, which is also the minimum recommended by the UN



2022 has been a good year for climate action in Australia. In May, Australians voted in a new Federal Government with a mandate for strengthened climate targets and policies.

The new Federal Government was joined by a 'super majority' of other politicians pushing for credible climate action and one of the first acts of the new Australian Parliament was to legislate a Climate Change Act. The new Act locked in a stronger emission reduction target for 2030, net zero by 2050 and integrated climate action into the criteria for (some) government spending. The Climate Change Act will hopefully limit new public subsidies for fossil fuels. Last financial year (2021-22), there was \$10.5 billion in federal support for fossil fuels.

2022 was perceived by many as the long-awaited 'climate election'. According to the ABC's Vote Compass, climate change was the number one issue mentioned by voters in the 2022 Federal Election.¹ Recent Climate of the Nation reports provide clues as to how climate concern influenced the vote, especially around climate impacts, economics and international pressure.

The last parliamentary term was bookended by severe climate impacts, starting with the Black Summer bushfires and ending in the devasting East Coast floods. The former Coalition Government was slow to both acknowledge the role of climate change in supercharging disasters and to actually respond to the communities in need.² Yet Australians are increasingly concerned climate change is fuelling more bushfires, droughts and floods (now at over four-fifths of Australians concerned), and a majority believe governments are not doing enough to prepare for and adapt to the impacts.

While the former Federal Government was delaying climate action, corporate Australia was getting on board. This is a welcome change from 2019 when the Business Council of Australia claimed a 45% emission reduction target was 'economy wrecking'. Now it describes a 46-50% cut as 'pragmatic and ambitious',³ reflecting that many corporations have adopted targets of net zero emissions by 2050, including the owners of 74% of Australia's most polluting facilities.⁴ While corporate net zero targets are not without problems, such as over-reliance on dubious carbon offsets, it seems clear that most of corporate Australia is finally following wider community sentiment on climate.

In November 2021, the former Coalition Government was under pressure in the lead up to COP26 in Glasgow. The United States and the United Kingdom had increased their climate targets and efforts, and left Australia behind. Two-thirds of Australians want their country to be a world leader in solving climate change, yet the last Federal Government, shamed into attending COP26, was seen as a laggard at best and a villain at worst.⁵ By contrast, the Labor Party committed to bid to host a future UN Climate Conference in Australia, a policy supported by more than two-thirds of Australians.

2022 has also been an expensive year for fossil fuel users. Russia's invasion of Ukraine caused a spike in global energy prices that have affected Australians through record petrol prices - 91% of the country's liquid fuels are imported. The energy price spike also contributed to extreme events in the national electricity market, including an unprecedented suspension of the wholesale market in June. Owners of coal-fired power stations have brought forward closure dates, blaming economics.

The opportunity to transition away from fossil fuels is growing and Climate of the Nation 2022 shows that it is also popular. Three-quarters of Australians want coal power to be phased out and want an orderly plan to replace it with clean energy. Solar, wind and hydro are the top three preferred energy sources, while gas and coal trail at the bottom of the list.

Australians are keen to get off foreign oil and want incentives for electric vehicles, which can run on locally made renewable energy. They want a transport system that is less focused on personal, fossil fuelled vehicles, and instead prioritises public transport, walking and cycling infrastructure, and the electrification of transport.

Australians ultimately want a renewables-powered country, and the new Federal Government has every opportunity to deliver it.

Richie Merzian Climate & Energy Program Director, The Australia Institute

¹ABC (2022) Vote Compass data shows climate change, cost of living and the economy are the big election issues, but voters still split along party lines, https://www.abc.net.au/news/2022-04-22/vote-compass-federal-election-issues-data-climate-change-economy/101002116

² Vice (2022) Australia's Flood Victims Won't Be Voting for Scott Morrison, https://www.vice.com/en/article/pkpwvy/australias-flood-victims-wont-be-voting-for-scott-morrison

³ Doran (2021) Business Council of Australia calls for ambitious short-term carbon emissions reduction target, https://www.abc.net.au/news/2021-10-09/business-council-australia-new-ambitious-carbon-emissions-target/100526742

^{**}Covered under the Safeguards Mechanism. RepuTex Energy (2022) Potential Futures for Australia's Safeguard Mechanism, https://www.reputex.com/research-insights/report-modelling-potential-futures-for-australias-safeguard-mechanism/

⁵ CNN (2022) Australia is shaping up to be the villain of COP26 climate talks, https://edition.cnn.com/2021/09/12/australia/australia-climate-cop26-cmd-intl/index.html

Executive Summary

The Australia Institute's annual Climate of the Nation Report provides a comprehensive account of changing Australian beliefs and attitudes towards climate change, including its causes, impacts and solutions. For the first time, Climate of the Nation 2022 includes a chapter on Australians' views on transport solutions, including quantitative polling and qualitative focus group studies.

Climate of the Nation 2022 shows that concern about climate change remains at an all-time high and there is broad support for a range of decarbonisation policies and climate actions.

Concern about climate change remains at record high

Three-quarters (75%) of Australians are concerned about climate change, the same level of concern seen in 2021 and the highest since Climate of the Nation began. The intensity of concern has increased as well, with record high levels of those who are 'very concerned' about climate change (42%).

The top three climate impacts of concern are more droughts and flooding affecting crop production and food supply (83%), more bushfires (83%), and the extinction of animal and plant species (80%).

Support for phase out of coal power

Four-fifths (79%) of Australians believe that Australia's coal-fired power stations should be phased out, including half (49%) who think they should be phased out gradually and 31% who think they should be phased out as soon as possible. Across all political affiliations, respondents are more likely to think coal-fired power stations should be phased out than be kept running for as long as possible or never replaced by other power sources. Almost two-thirds (65%) of Australians want coal-fired power generation completely ended within the next 20 years, including 38% who want it ended within the next decade.

Electricity price rises blamed on privatisation, excessive profit margins and excessive gas exports

The rising cost of electricity and gas was in the spotlight for much of 2022. Most Australians blame increasing electricity prices on the privatisation of electricity generation and supply (48%), excessive profit margins of electricity companies (46%), or excessive gas exports making domestic gas really expensive (42%). Almost two-thirds (64%) agree that failure by the market to prepare for a transition away from fossil fuels has led to electricity price increases, including 31% that strongly agree.

Support for not approving new gas, coal or oil projects

The International Energy Agency (IEA) pathway says that no new fossil fuel projects should be approved in order to avoid 'the worst effects of climate change' by limiting global temperature rise to 1.5°C. A majority of Australians (57%) support Australia following the IEA pathway, to not approve any new gas, coal or oil projects.

Two-thirds (64%) of Australians support stopping new coal mines. One-quarter (26%) want new coal mines to be allowed, including 6% who support using taxpayer funds to subsidise them. Three-quarters (73%) think Australian governments should plan to phase out coal mining and transition into other industries.



Economic role of gas and coal substantially overestimated

Australians continue to overestimate the contributions of the gas and coal industries to the Australian economy, in terms of employment and economic value.

Australians overestimate the size of gas and oil industry employment by a factor of 58, believing it employs 9.7% of the total workforce. In reality, oil and gas employment makes up only 0.2% of the workforce. Australians also overestimate the economic value of the gas industry, believing it accounts for 12.1% of GDP, when the actual figure is around 2.6%.

Australians overestimate the size of coal mining employment, by a factor of 33. On average, Australians believe the coal mining industry makes up 10% of the total workforce, when in reality it makes up just 0.3% of the workforce. The share of GDP attributable to coal mining is also significantly overestimated by Australians, with the perceived contribution to GDP being 13% compared to the actual figure of 1.4%.

Australians also believe that the Petroleum Resource Rent Tax (PRRT), the main way the Australian Government collects revenue from oil and gas exploration and mining, contributed 11% to the federal budget for the 2021-22 year. In reality, the PRRT contributed just 0.3%.

Fossil fuel subsidies should be redirected to healthcare, cost of living and climate action

Australian governments continue to subsidise fossil fuel production and consumption while communities across the country continue to bear the costs of disasters exacerbated by fossil fuel use, the main driver of human-induced climate change. In 2021-22, fossil fuel subsidies cost \$11.6 billion across all federal, state and territory governments.

Most Australians would prefer this money be spent on other things including health care, cost of living and climate action. Just 8% of Australians 'do not think fossil fuel subsidy money should be spent elsewhere'.

Over three-fifths (63%) would prefer it spent on healthcare, just under half (48%) prefer it spent on cost of living support, and 43% prefer it spent on climate action, including recovery and mitigation measures from climate impacts.

Fossil fuel companies should bear costs of climate impacts

Natural disasters cost the Australian economy \$38 billion a year, which is estimated to increase to \$73 billion by 2060. Half (48%) of respondents believe that fossil fuel producers should pay for the costs of responding to climate change, while just 14% say taxpayers should bear the costs and just 9% believe the burden should fall on people facing climate impacts. Over three-fifths (62%) of Australians support a levy on fossil fuel exports to help local governments respond to the impacts of climate change.

Carbon capture and storage should be paid for by emitters

Carbon capture and storage (CCS) refers to technologies that capture carbon dioxide emitted from coal, oil, and gas facilities or directly from the atmosphere and store it. Over the last two decades, over \$4 billion in public funding has been committed to CCS projects and initiatives. Most Australians (61%) believe that CCS projects should be funded by 'those responsible for the emissions', while just 7% believe that taxpayers should fund them. Across all political affiliations, less than one-tenth (10%) believe that CCS should be funded by taxpayers.

Governments should check the accuracy of private sector net zero claims

The private sector is increasingly setting net zero targets to demonstrate climate ambition to consumers, shareholders and other stakeholders. Many companies' emissions reduction plans are heavily dependent on carbon offsets, which have been plagued by integrity concerns, and Australia's carbon market is currently under review. Two-thirds (67%) of Australians believe that it should be the responsibility of governments to verify 'net zero emissions' and 'carbon neutral' claims made by companies.

Reducing transport emissions

Australians support a range of policies to reduce emissions from the transport sector. Over two-thirds (69%) support the introduction of a transport decarbonisation strategy, with just 12% disagreeing. Three-quarters (75%) agree that the government should have industry-specific (i.e. transportation, agriculture, etc.) targets for reducing emissions, and more than two-thirds (68%) support the introduction of national fuel efficiency standards in line with those in Europe.

Electric vehicle policies are also popular, including government subsidies, charging infrastructure and registration and stamp duty discounts. Two-thirds (64%) of Australians support requiring all new car sales in Australia to be zero emissions vehicles by 2035.

Support for domestic electric vehicle manufacturing

A majority (70%) of Australians support having a Manufacturing Industry Commission to explore prospects for producing electric vehicles domestically. The global transition to electric vehicles and electric vehicle manufacturing is a unique opportunity for Australia to rebuild its vehicle manufacturing industry. Three-quarters (76%) of Australians want to see government support to increase domestic manufacturing of zero-emission electric vehicles. Four-fifths (79%) support having a long-term strategy to provide vocational training.

Support for active and public transport policies

Australians are supportive of policies to encourage and improve active and public transport. On average, Australians believe 20% of government transport spending should go to active transport, the same as the minimum recommended by the United Nations. Three-fifths (62%) support having a national subsidy scheme for bikes, e-bikes or cargo bikes, and three-quarters (75%) support electrifying state bus fleets by 2030.

Australia should be a world leader on climate

Most Australians support more ambitious climate policy and want Australia to play a leading role in international climate action. Two-thirds (67%) of Australians believe that Australia should be a world leader in finding climate change solutions. More than two-thirds of respondents (71%) support Australia hosting a United Nations Conference of the Parties (COP), which is the biggest event in the United Nations calendar and the largest annual climate conference.

Aim + Approach

Who

The Australia Institute Climate & Energy Program engaged leading firm YouGov to conduct the quantitative and qualitative surveys for Climate of the Nation 2022.

Quantitative

The quantitative survey was conducted on the YouGov Galaxy Online Omnibus from 12-23 August 2022.

The sample comprises 2,691 Australians aged 18 years and older.

The overall margin of sampling error is 2.17%.

The sample was distributed throughout Australia, as follows:

State	Sample size	Margin of error
NSW	522	4.41%
VIC	525	4.51%
QLD	509	4.46%
SA	410	4.94%
WA	313	5.85%
TAS	311	5.81%

Age, gender, and location quotas were applied to the sample, and post-survey data was weighted by age, gender, and location to reflect the latest Australian Bureau of Statistics (ABS) population estimates.

Respondents were classified as residents of capital cities or regional areas. Capital cities refer to Sydney, Melbourne, Brisbane, Adelaide, Perth, and Canberra.

Respondents were classified as culturally and linguistically diverse (CALD) or not culturally and linguistically diverse (non-CALD). The CALD group includes those who identify as having ancestry that is not white Australian or European, or those who speak a language other than English at home, or those who identify as Aboriginal or Torres Strait Islanders.

Qualitative

Four online focus groups on transport were carried out between Tuesday 20 September and Wednesday 21 September 2022. The groups were conducted over Zoom with 32 participants in total. Of the four groups, two groups comprised metropolitan residents (one group of inner-city residents and one group of non-inner city residents) and two groups comprised of regional residents.

The focus group participants included a mix of genders and age groups, and each group included at least one individual over age 65 and one individual who identified as having physical disability or mobility limitations. To qualify for the groups, participants were asked about their transportation habits, and selected to represent a variety of transport users, including car, bicycle, walking and public transport users.

Genter for Disaster Philanthropy (2022) 2022 Australian Flooding, https://disasterphilanthropy.org/disasters/2022-australian-flooding/

[?] Fielding (2022) Is News Corp following through on its climate change backflip? My analysis of its flood coverage suggests not, https://theconversation.com/is-news-corp-following-through-on-its-climate-change-backflip-myanalysis-of-its-flood-coverage-suggests-not-179468
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Probertson (2022) PM Anthony Albanese identifies 'long-term' solution to relentless floods, https://thenewdaily.com.au/news/politics/2022/07/06/albanese-floods-long-term-solution.

¹⁰ King (2022) A climate scientist on the planet's simultaneous disasters, from Pakistan's horror floods to Europe's record drought, https://theconversation.com/a-climate-scientist-on-the-planets-simultaneous-disasters-frompakistans-horror-floods-to-europes-record-drought-189626

Henley (2022) Europe's rivers run dry as scientists warn drought could be worst in 500 years, https://www.theguardian.com/environment/2022/aug/13/europes-rivers-run-dry-as-scientists-warn-drought-could-be-worst-in-500-years

Attitudes Towards Climate Change

Australians are already experiencing the impacts of climate change. In March 2022, a national emergency was declared after large parts of Australia's east coast were devastated by floods. At least 22 lives were lost, tens of thousands of people were displaced, and over 20,000 homes and businesses were flooded.⁶ While the Australian media has historically been hesitant to link the role of climate change to increasingly frequent and severe weather events,⁷ climate change was widely recognised as a factor in the 2022 flood events. The Australian Bureau of Meteorology linked the 2022 floods to a warming climate,⁸ and newly elected Prime Minister Albanese announced that Australia should reduce its contribution to global climate change as a 'long-term solution' to frequent flooding.⁹

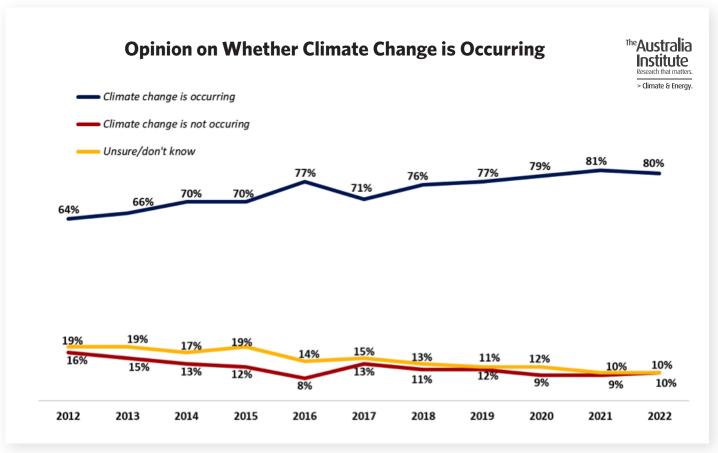
Throughout 2022, global weather-related catastrophes exacerbated by climate change dominated the international news cycle. Extreme floods in Pakistan covered up to a third of the country and killed more than 1,100 people, termed a 'climate catastrophe' by the Secretary-General of the United Nations António Guterres. Record-breaking heatwaves and droughts hit Western Europe and China, with temperatures in the United Kingdom reaching 40°C for the first time ever,¹⁰ and the Loire and Rhine rivers becoming crossable by foot and impassable for barge traffic due to low water levels.¹¹

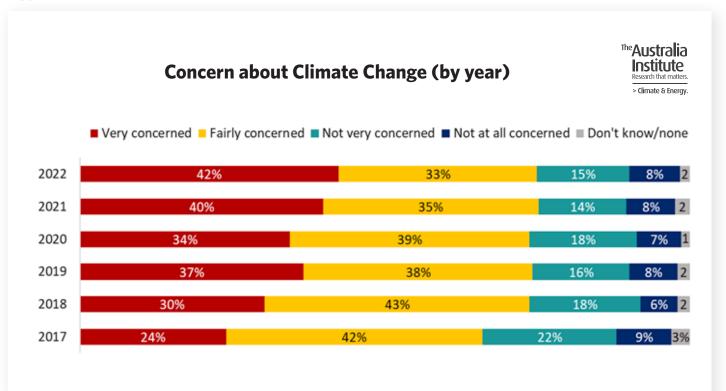
Climate of the Nation 2022 shows Australians are increasingly feeling the impacts of climate change now. Climate concern remains at an all-time high, and recognition that climate change is already causing floods, more extreme weather events and energy shortages has increased.

Near consensus that climate change is occurring

Similar to last year, 80% of Australians believe climate change is occurring, compared to 10% who do not think it is occurring (10% don't know or are not sure). Younger respondents are more likely to believe climate change is occurring than older respondents, consistent with previous years. Of those aged 18-24, the vast majority (91%) believe climate change is occurring, compared to 73% of those aged over 65. Those who are culturally and linguistically diverse are also more likely to believe climate change is occurring (86%) compared to those who are not (78%).

FIGURE 1.1





Climate concern at all time high

Concern about climate change has remained at a record high level - three-quarters (75%) of Australians are concerned about climate change, the same level of concern seen in 2021 and the highest level of climate concern since Climate of the Nation began. Slightly less than one-quarter of Australians (23%) are not concerned about climate change, including 15% that are not very concerned and 8% that are not concerned at all.

As in other years, younger respondents tend to be more concerned about climate change than older respondents. Of those aged 25-34, 84% are concerned about climate change, compared to 66% of those aged over 65. Concern about climate change is similar across states, although those who are not concerned is higher in Queensland (27% not concerned) than in Victoria (20% not concerned).

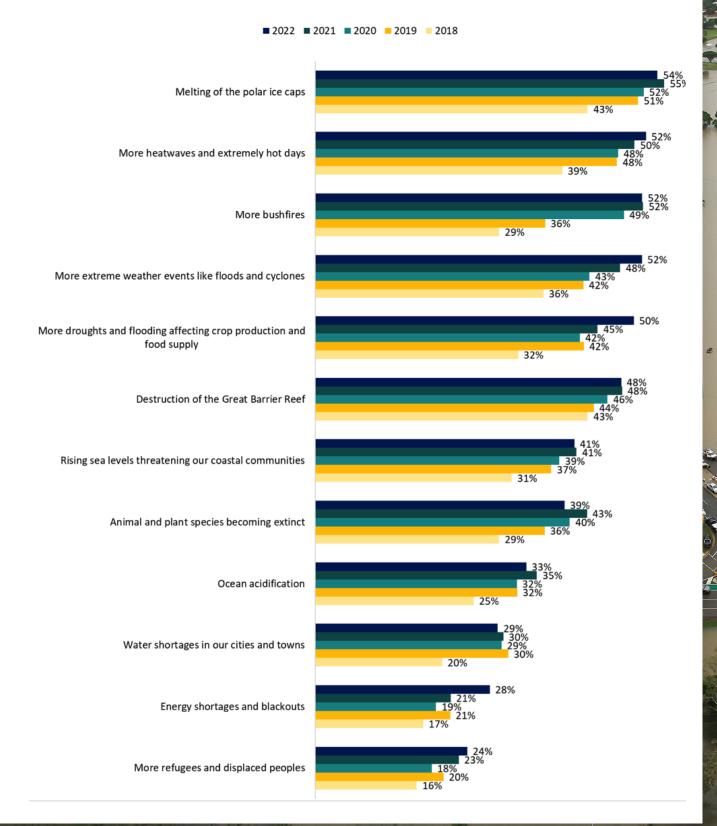
When asked about specific impacts of climate change, the top three concerns amongst Australians are more droughts and flooding affecting crop production and food supply (83%), more bushfires (83%), and animal and plant species becoming extinct (80%). This is unsurprising, given the recent devastating flood events, the Black Summer bushfires of 2019-20 that many communities are still recovering from, and the delayed release of Australia's State of the Environment report in July 2022, which brought to the fore the poor and worsening state of Australia's natural environment. The report found that the overall outlook for Australia's environment is deteriorating, exacerbated by climate change.¹² The number of plant and animal species listed as threated has increased by 8% since 2016 and more species extinctions are expected over the next decade. In February 2022, koalas were officially recognised as an endangered species, following a decline in numbers due to habitat destruction from land clearing and bushfires.13



The Australia Institute Research that matters. **Concern that Climate Change will Result in the Following Impacts** > Climate & Energy. ■ Very concerned Fairly concerned ■ Not very concerned ■ Not at all concerned ■ Don't know/none More droughts and flooding affecting 52% 32% crop production and food supply More bushfires 54% 28% Animal and plant species becoming 47% 33% extinct More extreme weather events like 50% 30% floods and cyclones Destruction of the Great Barrier Reef 32% More heatwaves and extremely hot 49% 29% days Melting of the polar ice caps 46% 30% Water shortages in our cities and 43% 14% towns Energy shortages and blackouts 40% 35% Impacts on health, e.g. illness related to: water scarcity or quality, heat, 41% 34% mosquito-borne viruses Rising sea levels threatening our 40% 35% coastal communities More refugees and displaced peoples 36% 35% 8%

Belief that Climate Change is Already Causing the Following Impacts (by year)





Climate impacts being felt now

A consistent majority of Australians believe we are already experiencing the impacts of climate change in Australia (81%, the same as in 2021, and similar to the 80% in 2020) including those who think we are experiencing the impacts 'a lot' or 'a little'. However, climate impacts are now being felt more acutely. The number of respondents who believe we are experiencing the impacts 'a lot' (51%) has increased from 47% in 2021, and 33% in 2016. Just 6% of Australians believe we are not experiencing climate change impacts at all.

Almost three-quarters (74%) of respondents agree that Australia's climate has already changed (compared to 9% that disagree). When asked whether climate change is already causing specific impacts, more than half of respondents believe climate change is already causing melting of the polar ice caps (54%), extreme heatwaves and extremely hot days (52%), more bushfires (52%), more extreme weather events like floods and cyclones (52%) and more droughts and floods affecting crop production and food supply (50%).

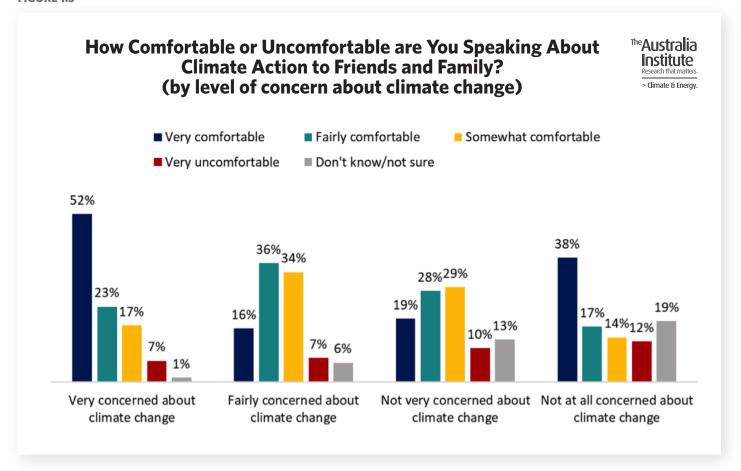
Likely reflecting the attention throughout the year on the East Coast floods and energy crisis (explored in the Electricity Transition chapter), respondents are more likely than they were last year to believe that droughts and flooding are already being caused by climate change (50%, up from 45% in 2021), and

Conflicting opinions and exaggerated claims clouding climate judgment

Conflicting opinions and perceived exaggerated claims about the impact of climate change continue to muddy the waters when it comes to some Australians' attitudes to climate change. Despite concern amongst most Australians about the impacts of climate change, 30% of respondents believe the seriousness of climate change is exaggerated (compared to 52% that disagree). This perspective tends to line up with the political affiliation of the respondent. The majority (66%) of One Nation voters believe the seriousness of climate change is exaggerated, compared to just 12% of Greens voters, 21% of Labor voters, 33% of other voters and 47% of Coalition voters.

Almost half (48%) of respondents believe there are too many conflicting opinions for the public to be sure about claims made around climate change (29% disagree). However, most respondents (70%) trust the science that suggests the climate is changing due to human activities (compared to 14% that do not). Younger respondents are more likely to trust the science (80% of those aged 18-24, decreasing by age cohort to 58% of those over 65.)





Most Australians comfortable speaking about climate action and accessing information and resources

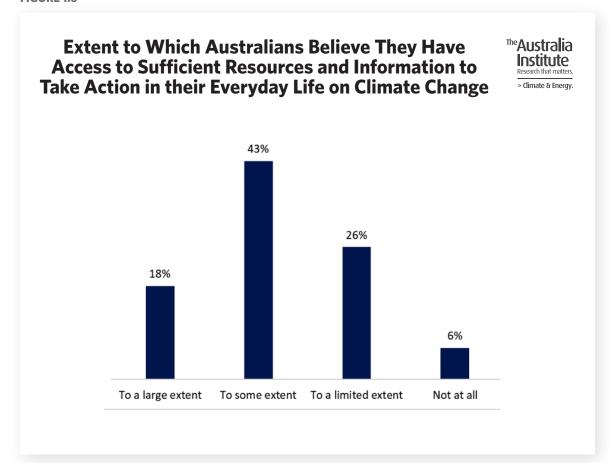
Most Australians feel comfortable speaking to their friends and family about climate action. The majority of Australians (61%) are at least fairly comfortable speaking about climate action to friends and family, including 33% that feel 'very comfortable' and 28% that feel 'fairly comfortable'. Around one-quarter of Australians (24%) feel 'somewhat comfortable' speaking to friends and family about climate change, while 8% feel 'very uncomfortable'.

Men and older Australians are most comfortable speaking about climate action. Men are more likely to say they are 'very comfortable' talking to friends and family about climate action (40%) compared to women (28%), and respondents aged over 65 are more likely to say they are 'very comfortable' speaking about climate action (40%) compared to those aged 18-24 (24%) or those aged 25-34 (29%). This may reflect the broader confidence of these cohorts generally rather than a particular proclivity for discussing climate action.¹⁴

Interestingly, those with the most polarised views on the extent to which climate change is impacting Australia tend to be the most comfortable speaking to friends and family about climate action. Of those who believe climate change is impacting Australia 'a lot', 44% are 'very comfortable' speaking to family and friends about climate action, and of those who believe climate change is not impacting Australia at all, 39% are 'very comfortable' speaking about it. By contrast, respondents that believe climate change is impacting Australia 'a little' or 'not very much' are less likely to be 'very comfortable' speaking to family and friends about climate action (21% and 22% respectively).

Likewise, on the question of how comfortable respondents feel talking about climate action, those who are 'very concerned' or 'not at all concerned' about climate change are most comfortable speaking about it to friends and family. More than half (52%) of those who are 'very concerned' about climate change are 'very comfortable' talking about climate action, and over one-third (38%) of those who are not concerned at all about climate change are 'very comfortable' speaking about climate action. Those with lower levels of concern are less comfortable talking about climate action (16% of those that are 'fairly concerned' and 19% of those that are 'not very concerned').

¹⁴ See Demographics chapter for further discussion.



People may be less inclined to actively tackle the climate crisis in their everyday lives if they feel they lack the appropriate knowledge, skills or resources. Resources and information can help empower individuals to use their time and/or money to take effective action on climate change and prepare them for the impacts of a changing climate.

Most Australians (61%) feel they have sufficient access to resources and information to take action in their everyday life on climate change. Around one-quarter (26%) agree that, to a limited extent, they have sufficient access to resources and information, and 6% believe they do not have sufficient access at all. Younger respondents are least likely to feel they have sufficient access (56%, compared to the national average of 61%). This may reflect that Australia does not have a national education program addressing climate change. The new Australian Curriculum, released in April 2022, incorporates more climate change subject matter than the previous curriculum. However, experts have called for additional resources and teacher education to equip schools to empower their students to become active on climate action. The sufficient access to resources and teacher education to equip schools to empower their students to become active on climate action.

Despite the majority of Australians feeling that they have adequate access to resources and information to act on climate change, results from the Ipsos survey on global attitudes to climate change, released in 2022 on World Earth Day, suggest that Australians are slightly less likely to take voluntary actions to reduce emissions compared to people from other countries, and that many Australians misunderstand the effectiveness of different actions in combating climate change.¹⁷



¹⁶ Gobby (2021) Curriculum is a climate change battleground and states must step in to prepare students, https://theconversation.com/curriculum-is-a-climate-change-battleground-and-states-must-step-in-to-prepare-students-172392

¹⁶Beasy et. al. (2022) How well does the new Australian Curriculum prepare young people for climate change? https://theconversation.com/how-well-does-the-new-australian-curriculum-prepare-young-people-for-climate-change-183356

¹⁷ Ipsos (2022) Earth Day 2022: Global attitudes to climate change, https://www.ipsos.com/en/global-advisor-earth-day-2022-perils

Electricity Transition

In 2022, Australians experienced first-hand the consequences of fossil fuel dependence and a slow, uncoordinated energy transition. Electricity prices rose to unprecedented levels, driven by increased international prices for coal and gas following Russia's invasion of Ukraine, as well as domestic coal plant outages (both planned and unplanned). Wholesale gas and electricity prices in the June quarter were more than triple prices from the previous year,18 and the Australian Energy Market Operator (AEMO) was forced to suspend the National Energy Market (NEM) to ensure a reliable supply of electricity for Australian homes and businesses.¹⁹

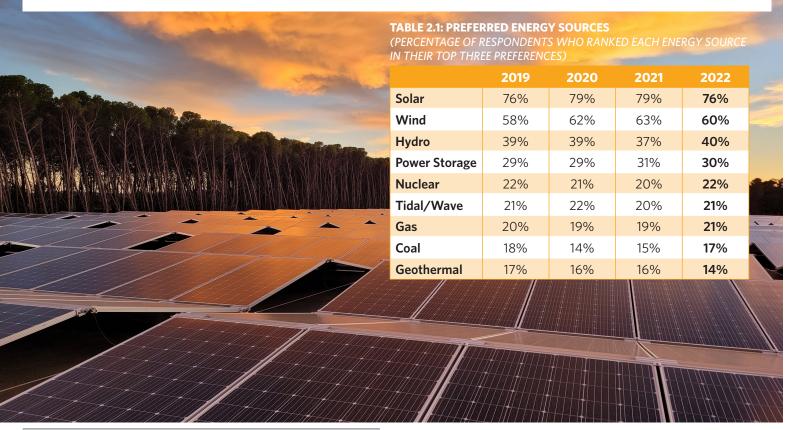
While electricity generation remains the largest source of emissions in Australia, the country is moving firmly away from fossil fuels towards renewable energy. During 2021, renewable energy provided almost one-third (31%) of Australian electricity demand,²⁰ and the market operator is preparing the grid to handle periods of 100% renewable energy within the next three years. Emissions reduction objectives will now shape Australia's future energy policy, following a landmark decision by federal, state and territory ministers to include emissions reductions in the National Electricity Objectives alongside affordability, reliability and security.21

Solar and wind are the most popular energy sources

Solar is consistently Australians' most popular energy source. When asked to rank nine energy sources for Australia from most preferred to least preferred, half of all respondents (50%) select solar as their number one choice - similar to the 52% in 2021.

In terms of top three energy sources, over three-quarters (76%) rank solar in their top choices. Wind energy is the second most preferred energy source (60% rank it in their top three choices), followed by hydro (40%) and power storage like batteries

Respondents' most preferred energy sources are also the most affordable. According to CSIRO, wind and solar remain the cheapest sources of electricity generation and storage in Australia including costs for energy storage and transmission.²² The Australian Government expects renewable generation to account for 82% of electricity generation in the NEM by 2030, and plans to roll out transmission lines to support new renewables through the \$20 billion Rewiring the Nation plan.²³



¹⁸ Australian Energy Market Operator (2022) Q*uarterly Energy Dynamic*s – Q2 2022, https://www.aemo.com.au/energy-systems/major-publications/quarterly-energy-dynamics-qed

²⁰ Open NEM (2022) NEM, https://opennem.org.au/energy/nem,

¹⁹ Australian Energy Market Operator (2022) AEMO suspends NEM Wholesale Market, https://aemo.com.au/newsroom/media-release/aemo-suspends-nem-wholesale-market

²¹ Department of Climate Change, Energy, the Environment and Water (2022) Energy Ministers' Meeting – 12 August 2022, https://www.energy.gov.au/government-priorities/energy-ministers/meetings-and-communiques

²² CSIRO (2021) CSIRO report confirms renewables still cheapest new-build power in Australia, https://www.csiro.au/en/news/News-releases/2021/CSIRO-report-confirms-renewables-still-cheapest-new-build-power-in

²³ Australian Labor Party (2022) Rewiring the nation, https://alp.org.au/policies/rewiring_the_nation

²⁴ Australian Energy Market Operator (2022) 2022 Integrated System Plan, https://aemo.com.au/newsroom/media-release/aemo-releases-30-year-electricity-market-roadmap, p. 11 ²⁵ Fyson, Ganti, Grant, Hare (2022) Fossil gas: a bridge to nowhere, https://climateanalytics.org/publications/2022/fossil-gas-a-bridge-to-nowhere/



Energy source preference differs between states. Power storage is most favoured by respondents from South Australia — home of the first big battery, the Hornsdale Power Reserve (40% rank it in their top three, compared to 30% nationally). Victorians are most likely to favour solar (81% rank it in their top three, compared to 76% nationally), and respondents from Western Australia, where 17% of energy demand was produced by wind over the past year, are most likely to favour wind energy (71% rank it in their top three, compared to 60% nationally).

Younger respondents are most likely to favour solar (87% of those aged 18-24 rank it in their top three), while support for solar is lowest - but still the overwhelming favourite - amongst those aged over 65 (72% rank it in their top three). Solar is also the preferred energy source amongst all voting intentions, with the exception of One Nation voters who are most likely to favour hydro (54% of One Nation voters rank hydro in their top three energy sources).

Coal and gas not popular

AEMO's Integrated System Plan (ISP), released in 2022, shows that there is little role for gas generation in Australia's future energy system. According to the ISP, just 10GW of gas-fired generation will be needed for peak loads and firming in the NEM, less than the 11GW currently available.²⁴ Globally, a rapid phase-out of gas from the power sector is needed to limit global warming to 1.5°C.25

Climate of the Nation results show that gas is not a popular energy source amongst most Australians. In terms of top energy sources, just 4% of respondents rank gas first. In terms of top three energy sources, just 21% rank gas in their top choices - a slight increase from 19% in 2021. Coal is also an unpopular energy choice, with 6% ranking it as their most preferred energy source and 17% ranking it in their top three - a slight increase from 15% in 2021.

Supporters of nuclear not very concerned about climate change

During 2022, the Coalition renewed calls for nuclear power despite consistent evidence it is expensive, inflexible and slow to build.²⁶ According to the CSIRO there is no prospect of any domestic nuclear projects this decade due to technology costs and immaturity and multiple inquiries have found that there is no business case for nuclear energy in Australia.²⁷ Climate of the Nation shows that nuclear energy is a divisive topic, with just under half (46%) of respondents ranking it either first or last (34% rank it last), reflecting polarised views.

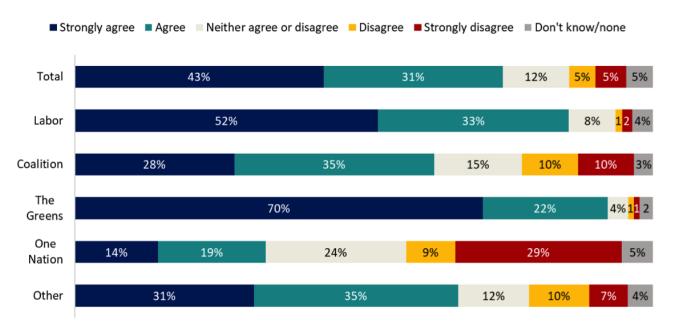
Respondents who rank nuclear as their most preferred energy source tend to be less concerned about climate change, and more likely than other respondents to think climate change is not occurring. This suggests that while nuclear energy is sometimes posited as a climate solution, most proponents are unlikely to favour it out of genuine climate concern.

Nuclear energy is the number one energy source of those who are 'not at all concerned' about climate change. Over one-third (35%) of those that are 'not at all concerned' about climate change select nuclear as their number one energy source, followed by 29% that select coal, and 16% that select solar. Conversely, of those that rank nuclear as their number one energy source, one-third (32%) are not very concerned about climate change and one-quarter (23%) are not at all concerned. Nuclear is also the top energy choice of those who do not believe climate change is occurring (25% select nuclear as their number one preferred energy choice). Men (17%) and older Australians (21% of those aged over 65) are also far more likely to preference nuclear energy than women (7%) and younger Australians (8% of those aged 18-24).

²⁶ Swann and Quicke (2019) Over Reactor, https://australiainstitute.org.au/report/over-reactor/ ²⁷ Ludlow (2022) Nuclear energy too expensive to replace fossil fuels: CSIRO, https://www.afr.com/companies/energy/nuclear-energy-too-expensive-to-replace-fossil-fuels-20220711-p5b0pd







Plan needed to ensure the orderly closure of old coal plants

The vast majority of respondents (79%) believe Australia's coal-fired power stations should be phased out, including half (49%) who think they should be phased out gradually so that the costs can be managed over time, and one-third (31%) that think they should be phased out as soon as possible, even if it costs more in the short term. Just 10% think they should be kept running as long as possible, and 11% think coal does not need to be replaced by other power sources like wind or solar power.

Across all voting intentions, respondents are more likely to think coal-fired power stations should be phased out (either gradually or immediately) than be kept running for as long as possible or never replaced by other power sources. The vast majority (93%) of Greens supporters prefer coal-fired power stations be phased out, compared to 86% of Labor voters, 68% of Coalition supporters, 46% of One Nation voters, and 77% of other voters.

Three-quarters of respondents (74%) agree that governments need to implement a plan to ensure the orderly closure of old coal plants and their replacement with clean energy (10% disagree). Additionally, the majority of Australians (57%) recognise that Australia's aging coal-fired power stations are increasingly unreliable (just 12% disagree with this statement).

Timeline for coal closures

The timeline for coal-fired power station closures in Australia is continually shifting forward, with multiple closures occurring faster than previously expected. Australia's largest power station, Eraring, will close in 2025 – seven years ahead of schedule – and the closures of the Bayswater and Loy Yang A power stations have been brought forward (to 2033 and 2035 respectively). Under the most likely scenario in AEMO's ISP, 60% of current coal-fired power generation is forecast to close by 2030 and coal generation will be completely gone by 2043.

Despite the inevitable decline of coal-fired power generation in Australia, the Australian Government was notably absent from the global commitment to phase out coal power, signed on the margins of the 2021 United Nations Conference of Parties (COP26) climate summit. Over 40 countries, including South Korea, Indonesia, Vietnam, Poland and Ukraine, pledged to end the use of coal power by the 2030s for wealthy countries and the 2040s for smaller economies. To keep warming within 1.5°C, wealthy countries should phase out coal before 2030.

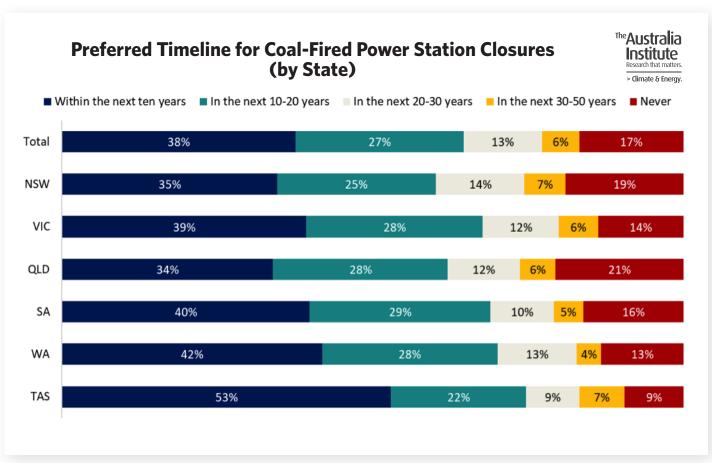
When asked about their preferred timeline for coal-power generation closures, almost two-thirds (65%) of Australians want coal-fired power generation completely ended within the next 20 years, including 38% who want it ended in the next decade.

Support for the closure of coal-fired power stations within the next ten years is strongest in states that are currently less reliant on coal-fired power generation for electricity. Tasmanians want the fastest transition, with 53% opting for a complete end to coal-fired power generation this decade, compared to 42% of Western Australians, 40% of South Australians, 39% of Victorians, 35% of those in NSW, and 34% of Queenslanders.

Younger respondents are more likely to think coal-fired power generation should end this decade (46% of those aged 18-24, compared to 34% of those aged over 65). Additionally, women are more likely than men to think coal-fired power generation should end this decade (42% of women, compared to 33% of men), but just as likely as men to think it should never be completely phased out (17% of women, compared to 16% of men).

There is also a significant difference in opinion between different voting intentions on the appropriate timeline of coal closures. The majority (67%) of Greens voters believe coal generation should end this decade, compared to 41% of Labor voters, 40% of other voters, 22% of Coalition voters and 12% of One Nation voters.

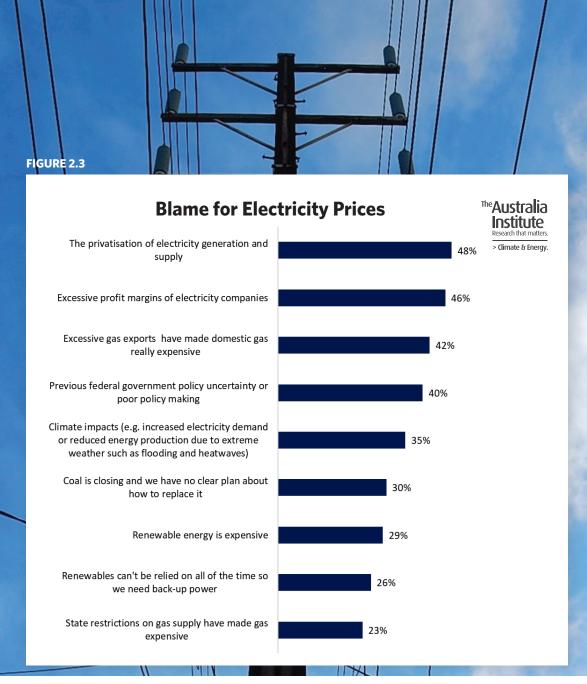
FIGURE 2.2



²⁸ Australian Energy Market Operator (2022) 2022 Integrated System Plan, https://aemo.com.au/newsroom/media-release/aemo-releases-30-year-electricity-market-roadmap, p. 29

²⁹ AGL (2022) AGL Loy Yang Power Station, https://www.agl.com.au/about-agl/how-we-source-energy/loy-yang-power-station

³⁰ Harvey, Ambrose and Greenfield (2021) More than 40 countries agree to phase out coal-fired power, https://www.theguardian.com/environment/2021/nov/03/more-than-40-countries-agree-to-phase-out-coal-fired-power



Electricity price rises blamed on privatisation, excessive profit margins and excessive gas exports

The rising cost of electricity and gas was in the spotlight for much of 2022. Wholesale electricity and gas prices in the NEM tripled during the June quarter compared to a year earlier, attributed to high international prices for fossil fuels and outages (both planned and unplanned) at coal-fired power plants forcing expensive gas generation.

Respondents were asked what they believe is to blame for the increasing electricity prices, from a list of options. A new option was added in 2022, stating 'excessive gas exports have made domestic gas really expensive', and 'previous' was added to 'previous federal government policy uncertainty or poor policy making'. The 2022 results are therefore not comparable to previous years.

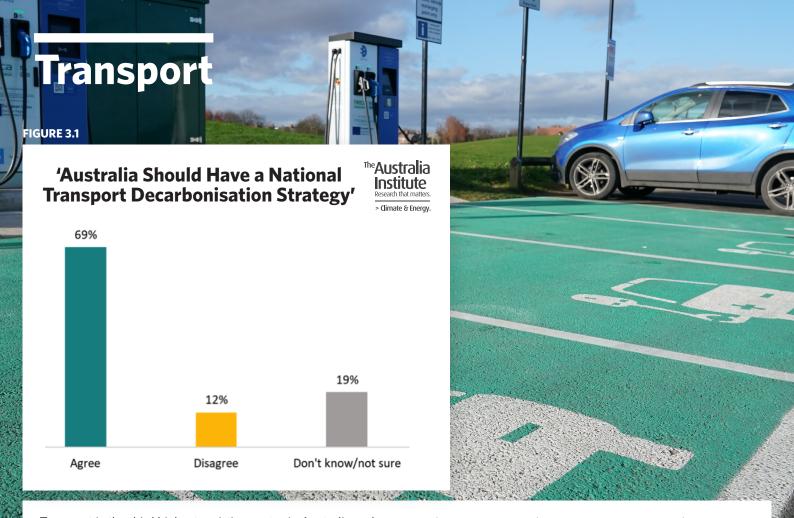
Most Australians blame increasing electricity prices on the privatisation of electricity generation and supply (48%), excessive profit margins of electricity companies (46%), or excessive gas exports making domestic gas really expensive

(42%). Respondents are least likely to blame state restrictions on gas supply (23%), renewables that can't be relied on all of the time (26%), and renewable energy being expensive (29%).

There are significant differences between age groups in terms of what they are most likely to blame electricity price increases on, with older respondents more likely to blame privatisation of electricity companies, which mainly occurred in the 80's, 90's and 00's. Younger respondents are more likely to blame the previous government and climate impacts. For those aged over 65, the most popular option is excessive gas exports (61%), closely followed by the privatisation of electricity generation and supply (60%), and excessive profit margins of electricity companies (52%). For those aged 18-24, the most popular option is previous Federal Government policy uncertainty or poor policy making (43%), followed by climate impacts (41%) and excessive profit margins of electricity companies (39%).

Respondents were also asked about the relationship between electricity price increases and preparedness for the transition away from fossil fuels. Almost two-thirds (64%) agree that failure by the market to prepare for a transition away from fossil fuels has led to electricity price increases, including 31% that strongly agree. Just 10% disagree with this statement.

³¹ Australian Energy Market Operator (2022) Quarterly Energy Dynamics – Q2 2022, https://www.aemo.com.au/energy-systems/major-publications/quarterly-energy-dynamics-qed



Transport is the third highest emitting sector in Australia and one of the fastest growing sources of emissions in the country. Most transport emissions (85%) come from burning fuels for road transport (like cars and buses), with the rest from rail, domestic aviation and domestic shipping.³² The energy efficiency of Australian transport rates poorly when compared to the top 25 energy-consuming countries, due largely to the lack of standards on fuel efficiency, higher-than-average fuel economy and limited use of public transport.³³ To curb rising emissions, Australia's transport system must shift from being car-centred and fossil fuel dependent to one that priorities public transport, cycling and walking as well as the electrification of cars, trucks and buses.

For the first time, Climate of the Nation 2022 asked respondents about Australia's transport system and their views on various transport policies. Quantitative polling results were supported by findings from qualitative focus group studies held online. Focus groups were split into regional and urban groups, and participants were chosen to include perspectives from a range of transport users (car-drivers, public transport users, cyclists and walkers) as well as people with disability and people aged over 65. Results show that Australians overwhelmingly support policies to decrease emissions from the transport sector, including shifting to electric buses, increasing government spending on active transport, connecting major cities via highspeed rail, and supporting the uptake of electric vehicles.

"When it comes down to it, we must do something to reduce our emissions ... And I do believe that the technology is constantly improving. And I think 5, 10 years from now it's going to be a very different conversation. ... I think we can't keep relying on petrol. It makes us vulnerable ... as a country, and as a global community, we need to do more to actually protect where we live"

(female, 45, outer-metro ACT)

Australians welcome a transport decarbonisation plan and sector-specific emissions reductions targets

Currently, Australia does not have an overarching national strategy to decarbonise transport emissions. The new Federal Labor Government has released a consultation paper in September 2022 to develop an electric vehicle strategy,34 however this does not cover all transport. More than two-thirds of Australians (69%) support the introduction of a transport decarbonisation strategy, with just 12% disagreeing. However, one-fifth (19%) of respondents 'don't know', which may indicate that the concept is not yet well understood by some. A transport decarbonisation strategy is popular across voting intentions, with the exception of One Nation voters. Three-fifths (60%) of Coalition voters and more than three-quarters (79%) of Labor voters support a national transport decarbonisation strategy.

³² Australian Government (2022) *National Inventory Report* 2020, https://www.dcceew.gov.au/climate-change/publications/national-inventory-report-2020 ³³ American Council for an Energy-Efficient Economy (2022) 2022 *International Energy Efficiency Scorecard*, p. 159 https://www.aceee.org/research-report/i2201,

³⁴ Department of Industry, Science and Resources (2022) National Electric Vehicle Strategy: consultation paper, https://consult.industry.gov.au/national-electric-vehicle-strategy

The Australian Government publishes greenhouse gas emissions projections by sector (such as transport, energy, and agriculture), but does not set emissions reductions targets by sector or industry. Australia's commitment to reduce emission by 43% applies to economy-wide emissions, with no further targets in place for specific sectors like transport.

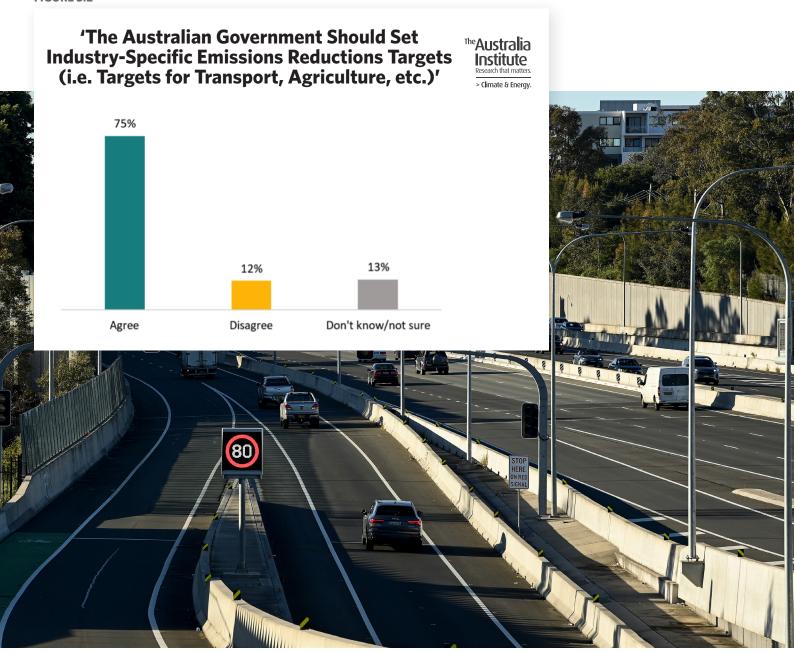
Three-quarters (75%) of Australians agree that the Australian Government should set industry-specific (i.e. transportation, agriculture, etc.) targets for reducing emissions. Younger respondents are more likely to support sector emissions reductions targets, with 80% of those aged 18-34 agreeing, compared to 68% of those aged over 65. Opinions on industry-specific targets also vary by geography. Over three-quarters (78%) of respondents living in capital cities say governments should have industry-specific emissions targets, compared to 69% of those in regional areas. Across all voting intentions, with the exception of One Nation voters, at least two-thirds (65%) of respondents agree that Australia should have emissions reductions targets for specific industries like transport.

Emissions from transport have increased more than any other sector in recent years, up by 52% between 1990 and 2020. The increase was 14% between the Australian Government's current baseline year of 2005 and 2020. This includes the effect of the COVID-19 travel restrictions, which saw transport-related emissions fall due to lockdowns and then begin to rise again.

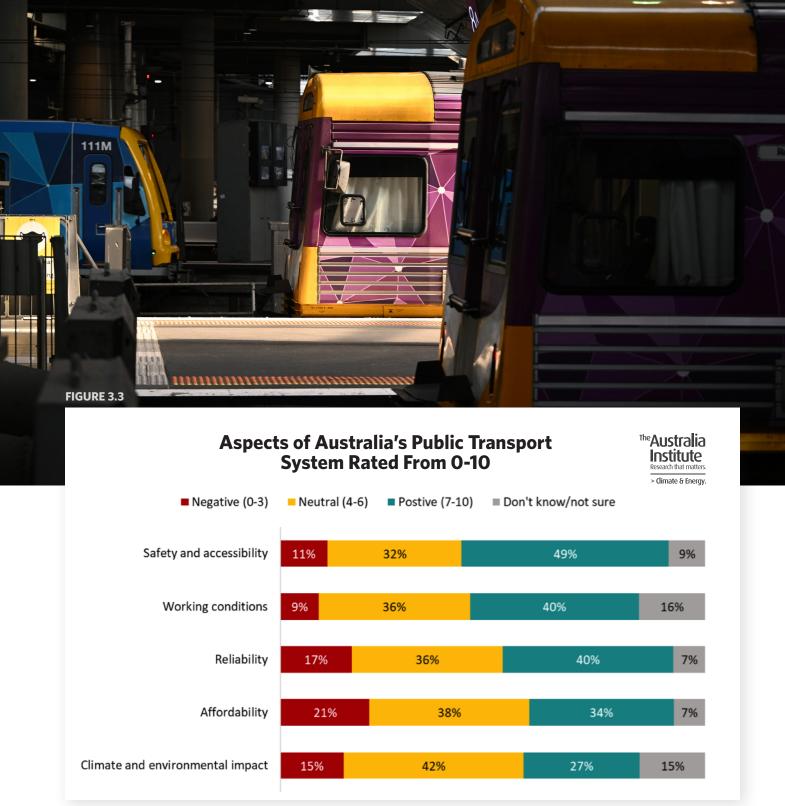
When asked about Australia's transport emissions, more than half (57%) of Australians correctly believe that transport emissions have increased since 2005, of which 33% believe they have increased 'a lot'. In contrast, just 13% say that emissions have decreased. Those living in urban areas are slightly more likely to know that transport emissions have increased compared to those living in regional areas (59% and 54% respectively).

Interestingly, older Australians are less likely to know that transport emissions have increased. Just half (50%) of those aged over 65 believe Australian transport emissions have increased, compared to two-thirds (67%) of those aged 25-34.

FIGURE 3.2



³⁵ Australian Government (2022) National Inventory Report 2020, https://www.dcceew.gov.au/climate-change/publications/national-inventory-report-2020



Safety, accessibility and reliability of Australia's public transport seen positively

Respondents were asked to rate aspects of Australia's public transport system on a scale of 0-10, where 10 is 'excellent' and 0 is 'very poor'. Results have been grouped as 'positive' (7-10 out of 10), 'neutral' (4-6 out of 10), and 'negative' (0-3 out of ten). The results show that safety, accessibility, working conditions and reliability are generally seen in a positive light. However, opinions are divided about the climate impact and affordability of public transportation.

When asked about safety and accessibility (e.g. space for wheelchairs or prams, information in braille, etc.), half (49%) of respondents rate the safety and accessibility of Australia's public transportation system positively, of which 9% say it is 'excellent'. One-tenth (11%) rate it negatively and only 3% say it is 'very poor'. Overall, the safety and accessibility of the Australian public transport system receives a mean score of 6.4 out of 10.

Positive views on safety are highest in Western Australia and NSW and lowest in Tasmania. Regional Australians are slightly more likely to rate the safety and accessibility of public transport negatively compared to urban respondents (14% of regional respondents, compared to 10% of urban respondents), and much less likely to rate it positively (43% of regional Australians compared to 52% of urban Australians). Additionally, positive views towards the accessibility and safety of Australia's public transport are more common in younger age groups compared to older.

During focus group discussion, those with physical disability recalled difficulties with using buses and trains, a view shared across metro and regional areas. One participant with a disability (female, 34, outer-metro Queensland) noted how station facilities such as lifts are either non-existent or broken, making it "really, really hard" for her to get around. Similarly, a wheelchair user explained that the design of trains and buses made her reliant on transport staff to board and disembark, and that each trip requires a lot more planning:

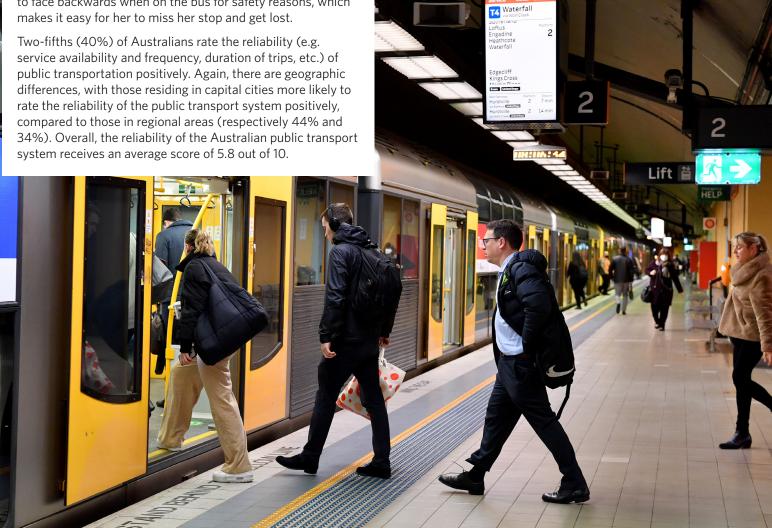
"If I get onto a train, the train station always has to ring ahead to the next station to get me off the train. Whereas most people just get on and off public transport. I really have to plan ahead where I go, and when I go"

(female, 48, inner-metro NSW, disability)

Additionally, it was raised in focus groups that buses are not well-designed for people with disability. A wheelchair user (female, 48, inner-metro NSW) expressed frustration at having to face backwards when on the bus for safety reasons, which makes it easy for her to miss her stop and get lost.

Working conditions (industry standards and conditions for workers) are seen positively by two-fifths (40%) of Australians, with a mean score of 6.2 out of 10. This is despite multiple industrial actions by transport workers throughout the year, including actions by rail workers in NSW calling for fair wages and conditions as well as safety changes to be made to new rail fleets.³⁶ Affordability of public transport (e.g. ticket costs, etc.) is more divisive for Australians, with just one-third (34%) having a positive view of this and one-fifth (21%) having a negative view of this. It also has the lowest mean score of 5.4 out of 10.

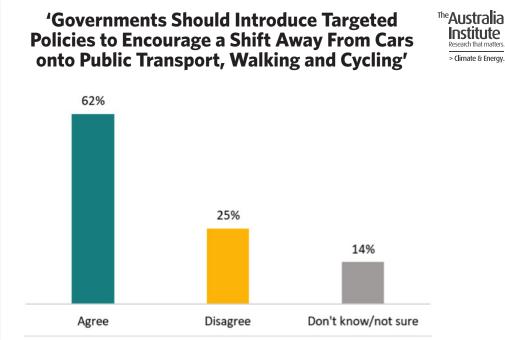
Australians are unsure about the climate and environmental impact of public transportation in Australia. Over one-quarter (27%) see this positively, with 15% seeing it negatively. However, many (42%) are 'neutral' about this, and 15% say 'don't know'. Positive opinion about climate and environmental impact is highest in Western Australia, followed by NSW and South Australia, and lowest in Tasmania. Overall, the climate and environmental impact of the Australian public transport system receives a mean score of 5.5 out of 10.



³⁶ Rail Tram and Bus Union (2022) NSW Govt forces more rail industrial action: Trains to stop midnight till 4am next Thursday, https://rtbuexpress.com.au/nsw-govt-forces-more-rail-industrial-action-trains-to-stop-midnight-till-4am-next-thursday/



FIGURE 3.4



Support for policies to lessen car dependency

In Australia, road-focused infrastructure spending accompanied by lower-density development has made it difficult for many people to reach services, jobs and destinations without a car, resulting in a highly car-dependent nation.³⁷ Decarbonising the transport sector will involve shifting to low-carbon options like cycling, walking, e-buses and light rail.

More than three-fifths (62%) of respondents agree that governments should introduce policies that encourage moving away from cars and towards public transportation and active transportation (i.e. walking and cycling). Agreement is higher amongst those aged 18-34 (69% agree) compared to those aged over 65 (52% agree), and those living in capital cities (66% agree) compared to those in regional areas (55% agree).

Non-car owners are only slightly more likely to agree that governments should encourage a shift away from car use (68%), compared to 61% for those with one car. Interestingly, even the majority of respondents with four cars or more support this shift (54%). Agreement that governments should encourage a shift is similar across states, ranging from a low of 59% in Queensland to a high of 63% in Tasmania and NSW.

During focus group discussions, the ingrained 'car culture' that has developed in Australia was raised and compared to the bike-friendly environments seen in the Netherlands and other European nations.

When asked what the Australian transport system should look like in the future, some focus group participants noted that the introduction of electric vehicles will do little alleviate the issue of congestion and over-crowded roads. Participants also said a future transport system should be more inclusive and accessible to everyone. Notably, this occurred more often when people with disability shared their experiences with the group, suggesting that many people are unaware of the challenges faced by disabled people when accessing public transport.

"I think it needs to be more accessible for everyone. To do that, we need things like light rail, bicycle paths, electric buses, I think we need to move all of those things into the future"

(female, 71, inner-metro WA)

³⁷ Low and Levinson (2021) How Australians' commutes compare with cities overseas, https://www.sydney.edu.au/news-opinion/news/2021/06/09/how-australians--commutes-compare-with-cities-overseas.html

Australians want more transport spending dedicated to cycling and walking infrastructure

To increase active transport use, additional funding is needed to improve cycling and walking infrastructure. The United Nations (UN) recommends dedicating at least 20% of transport funding to non-motorised or active transport.38 In Australia, all states and territories significantly underfund active transport infrastructure, historically spending less than 2% of transport funding (for road and active transport) on cycling.³⁹

Respondents were asked how much of overall transport infrastructure spending they thought should be dedicated to active transport (referring to walking, cycling, etc.) On average, Australians believe 20% of government transport spending should go to active transport, the same as the minimum recommended by the UN. One-sixth (16%) of respondents would like between 20%-29.9% of government transport funds to be used towards active transport, with 13% thinking this sum should exceed 30%.

Those who favour a larger portion of dedicated active transport spending tend to be younger, likely reflecting the difference in physical ability between age groups. Interestingly, older Australians are six times more likely to say active transport should not be funded at all (18% of those aged over 65, compared to 3% of those aged 18-34), despite the importance of well-funded active transport networks to help older people remain active, connected and engaged in their communities.⁴⁰

"you've got your big shiny projects, like roads and rail. And walking doesn't get as much love. Cycling, unless you're in the inner city, doesn't really get that much love. In the outer suburbs ... it has had a little bit of love, but nowhere near enough, and in the country, forget about it"

(male, 22, outer-metro VIC)

During focus groups, participants were generally supportive of raising the percentage of their state's transport budget being allocated to active transport. However, some regional participants noted that funding was not distributed evenly across Australia, due to population-based funding allocations and the requirement of regional councils to allocate funding to other priorities and services.

Across each of the focus groups, health was a common advantage associated with active transport, followed by cost and environmental benefits. The health benefits of active transport were not limited to physical health, but also included mental health, social and community benefits. For example, cycling from work "creates a barrier" between work and life, which has benefits for mental wellbeing (male, 62, inner-metro ACT). Other respondents flagged the sheer enjoyment of active transport such as improving mood, as opposed to engaging with the stresses of public transport or car traffic.

The community and social benefits of active transport were widely shared across the rural-regional divide. Participants held the view that active transport allows people to feel more connected to the community.

"Another advantage of walking is engaging with people in the community and getting to know people"

(male, 37, regional NSW)

The low ongoing costs associated with active transport once a bike or scooter is purchased was also widely cited, especially in the context of rising petrol prices.

"I really enjoy cycling to work, and to do my groceries, and everything. It's just cost. It's everyone's favourite number, zero. It's free. I mean, coming from a guy who has a battery and uses his solar panel to power it, it just brings a lot of joy to go whizzing past cars. And especially evening time, when there's a lot of traffic, it's just passing that. So you go A to B without any trouble, and I really enjoy it. And part of my exercise as well"

(male, 33, inner-metro QLD)

³⁸ UN Environment Programme (2016) Global Outlook on Walking and Cycling, https://www.unep.org/explore-topics/transport/what-we-do/share-road/why-does-share-road-matter/how-prioritize-walking
39 Pojani, Kimpton Corcoran, Sipe (2018) Cycling and walking are short-changed when it comes to transport funding in Australia, https://theconversation.com/cycling-and-walking-are-short-changed-when-it-comes-to-transportfunding-in-australia-92574

⁴⁰ Heart Foundation (n.d.) Healthy Active Ageing: Transport, https://www.healthyactivebydesign.com.au/healthy-active-ageing/active-ageing/evidence/transport

Support for making streets walkable and e-bikes affordable

Infrastructure improvements and incentives can help encourage more Australians to walk and cycle. Walkable neighbourhoods, safe and connected cycle paths, and active transport infrastructure that is integrated with the public transport network and accessible for everyone, all make active travel a more attractive option.

Climate of the Nation 2022 shows policies that make walking and using electric bikes easier are very popular. The vast majority of respondents (80%) support modifying and designing streets to encourage walking for people of all ages and abilities, with just 11% in opposition. Support for this is broad, with high support found across the age spectrum (78% of those aged 18-34, 79% for those aged over 65).

The safety aspects of cycling and walking on poor infrastructure was raised as a concern during focus groups. Safety concerns raised included the lack of bike paths that makes cyclists or skaters share the road with traffic. For example, one male (23, regional Queensland) said safety is his biggest concern, particularly in areas where "there's not well-established sort of footpaths." Tensions between pedestrians, cyclists and e-scooters, and the safety of shared paths, were recurring trends throughout the focus groups. The perception that rules and regulations were non-existent or not followed by cyclists or e-scooters was prominent, with one participant comparing it to the "wild west" (male, 62, inner-metro ACT).

There was general agreement amongst focus group participants that active transport infrastructure is improving, even within regional areas. Some respondents felt this was spurred on, in part, by COVID-19.

"Because of COVID, the local government in Townsville has spent an awful lot of money on upgrading footpaths and access around the city, and it's made everything very much more accessible"

(male, 51, regional QLD).

However, for people with disability, a lack of adequate and inclusive active infrastructure leads to unsafe and/or reduced travel. For those with physical disabilities, a lack of footpaths, or poorly maintained footpaths, can be a hazard causing falls, wheelchairs to tip over onto the road, or be forced to walk or use mobility scooters on the road.

"To go to the free-range dog park I go on footpaths, I go under the main road - there's a track under the main road - but then I go on the roads because ... very uneven footpaths..."

(female, 69, regional NSW, disability)

There was a large variation in experience between metropolitan and regional participants, and between coastal and non-coastal participants. It was suggested that different council areas should work together in an integrated way to improve footpaths and cycleways and how they connect. For example, a participant (male, 62, inner-metro ACT) said that Canberra has good paths, making it easy for him to cycle to and from work. On the other hand, a participant's experience in rural areas was that there are few bike paths, and roads are unsafe for cycling (female, 69, regional NSW, disability).

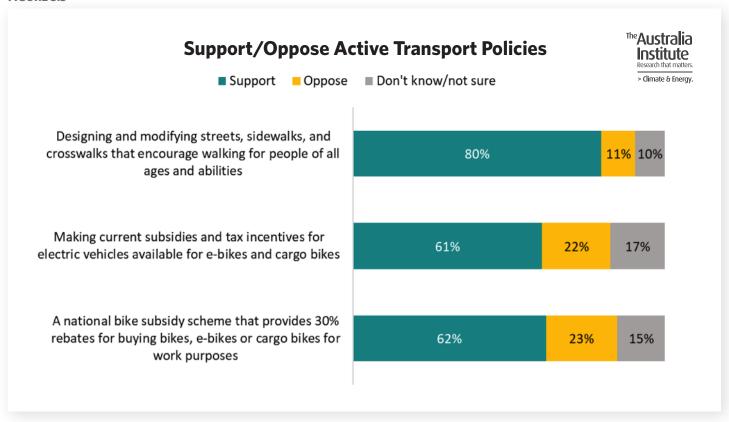
Policies that make purchasing an e-bike easier are popular too. Three-fifths (62%) of respondents support having a national subsidy scheme that provides 30% rebates for buying bikes, e-bikes or cargo bikes for work purposes, as recommended by the Bicycle Network.⁴¹ Support for a national bike subsidy scheme is highest amongst those aged 18-34 (70%) and lower for those aged over 65 (50%) - in turn, opposition is highest amongst those aged over 65 (34%) and lower for those aged 18-34 (15%).

All states and territories now offer some form of financial incentive to purchase new electric vehicles. However, these are restricted to cars and not applicable to e-bikes, with one notable exception. In 2022, the ACT Government released its Zero Emissions Vehicles Strategy, committing to expand stamp duty exemptions to include electric scooters and trikes, and introduce incentives to encourage the uptake of electric bikes.⁴²

Three-fifths (61%) of Australians support making current subsidies and tax incentives for electric vehicles available for e-bikes and cargo bikes. Support is similar amongst regional Australians (59%) and those living in urban areas (62%), as well as between respondents from different states.

⁴¹ Bicycle Network (2021) We need a national bike subsidy scheme, https://www.bicyclenetwork.com.au/newsroom/2021/11/29/we-need-a-national-bike-subsidy-scheme/ ⁴² ACT Government (2022) ACT's Zero Emissions Vehicles Strategy, https://www.climatechoices.act.gov.au/events-news/news/acts-charge-towards-zero-transport-emissions

FIGURE 3.5



Government should do more to increase electric vehicle uptake

Electric vehicle uptake in Australia has been slow compared to other countries. While demand for electric vehicles is outstripping supply, uptake is hampered by a lack of policies to encourage models to the Australian market.⁴³ While most electric vehicle policy in Australia has been driven by state governments, the recently elected Australian Government has introduced legislation to make electric vehicles more affordable by exempting some models from the Fringe Benefits Tax and import tariffs, committed to deliver a national electric vehicle charging network and released an electric vehicle strategy that explores the introduction of fuel efficiency standards.⁴⁴

"I think generally speaking, there's just not enough information, not enough general knowledge out there in the community about electric vehicles. And maybe there needs to be a better job done of promoting them and what they can do, and maybe talking to some of the misconceptions about them. But the reality is we need to do something to reduce our emissions. And that's a key way of doing it"

(female, 45, outer-metro ACT)

Two-thirds (67%) of respondents agree that the Australian Government should be doing more to increase electric vehicle uptake in Australia, including 30% that 'strongly agree', consistent with results from 2021. Those more likely to agree that the Australian Government should be doing more tend to be men (71%, compared to 64% for women) and under 50 years of age (76% for those aged 18-34, compared to 75% of those aged 35-49, and 57% for those aged over 65).

Most Australians believe that electric vehicles subsidies should be aimed at people on lower incomes. Nearly three-quarters (72%) agree that subsidies should be aimed at lower-income groups. This finds favour amongst those aged 18-34 (74%) and aged over 65 (72%), as well as those earning under \$50k per year and \$50k - \$99k per year (both 76%). However, perhaps unsurprisingly, those earning more than \$150k per year are most likely to disagree that electric vehicle subsidies should be targeted at lower incomes groups (30% disagree, compared to 15% nationally).

 ⁴³ Electric Vehicle Council (2022) State of Electric Vehicles — March 2022, https://electricvehiclecouncil.com.au/reports/state-of-electric-vehicles-march-2022/
 44 Department of Industry, Science and Resources (2022) National Electric Vehicle Strategy: consultation paper, https://consult.industry.gov.au/national-electric-vehicle-strategy

Fuel security measures welcome

The Australian transport system is currently highly dependent on imported oil. In the 2021 financial year, 91% of all fuel consumed in Australia was imported, either as already refined product or as crude oil. Because almost three-quarters of Australia's liquid fuel goes towards transportation, demand-side solutions like electrifying transport would improve Australia's fuel security and increase energy independence by reducing demand for foreign oil.45

Two-thirds (65%) of Australians agree that Australia should speed up electric vehicle uptake as a national security measure to reduce reliance on imported fuel, including 28% that 'strongly agree'. A majority of Labor and Coalition voters agree that electric vehicle uptake is a national security measure (77% of Labor voters, 54% of Coalition voters). Disagreement is highest amongst older Australians, with one-third (35%) of those aged over 65 disagreeing, compared to 16% of those aged 18-34.

Popular electric vehicle policies

Climate of the Nation 2022 reveals the popularity of a wide range of policies to encourage electric vehicle uptake. As in 2021, respondents were asked whether they supported or opposed EV policies, with support remaining high and increasing for some measures. The most popular electric vehicles policies in 2022 are:

- A government-funded network of fast-charging stations for electric vehicles (78% support)
- Requiring all new apartment blocks to include electric vehicle charging stations (76% support)
- Government subsidies to reduce electric vehicle purchase cost (75% support).

Compared to 2021, support for having a government-funded network of fast-charging stations for electric vehicles has increased by four percentage points, and those that 'strongly support' this initiative has increased five percentage points to 35%. Requiring all new apartment blocks to have electric vehicle charging stations has also increased, rising four percentage points from 2021. Support for this policy is higher in capital cities (79%, compared to 72% support in regional areas), where residential buildings tend to be more commonplace.

Since 2021, there has also been a four percentage point increase in support for subsidies to lower the cost of buying an electric vehicle. Support for this is uniform across most income groups (78% for those who earn \$50k - \$99k per year and \$100k -\$149k per year, and 77% for over \$150k per year), but lower amongst those earning under \$50k per year (73%), possibly reflecting a view amongst this group that even with a subsidy, the purchase of an electric vehicle is beyond their means.

During focus group discussions, cost was front-of-mind when it came to electric vehicles. Despite recognising their environmental benefits, some participants believe that current electric vehicle options are too expensive, and that there are many hidden costs such as higher taxation, insurance premiums, along with maintenance and potential battery replacement fees. Unsurprisingly, most focus group participants think government schemes to encourage electric vehicles uptake should revolve around tax subsidies and reducing insurance premiums.

"Maybe reduce taxes on the new cars rather than the petrol cars, to equal it out"

(female, 60, inner-metro NSW)

"They want everybody to run these electric cars but ...there should be some assistance... because money's so tight with everybody these days...I just think that it would be a good idea if the government helped to ... transfer your car from fuel to electric"

(female, 48, regional VIC)



⁴⁵ Carter, Quicke and Armistead (2022) Over a barrel, https://australiainstitute.org.au/report/over-a-barrel/

FIGURE 3.6

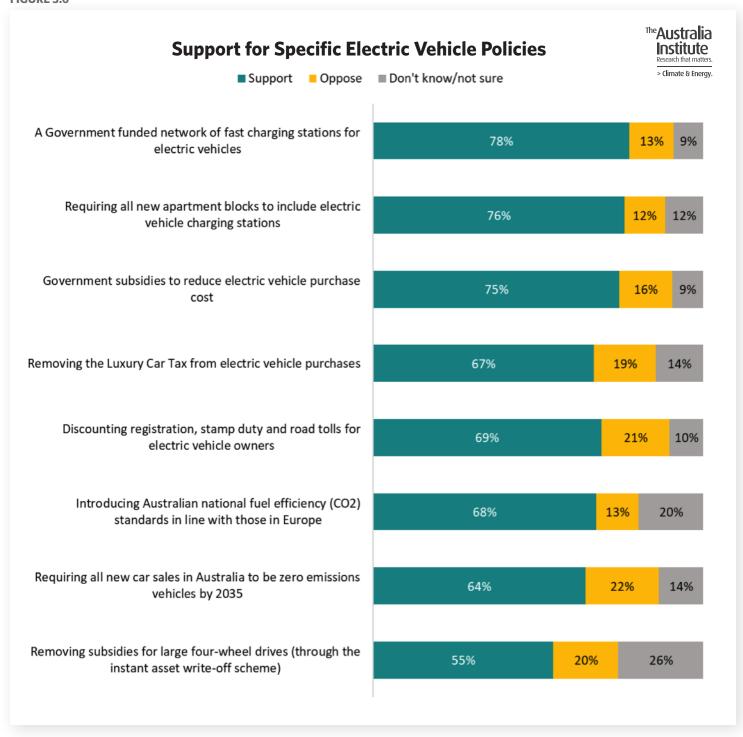
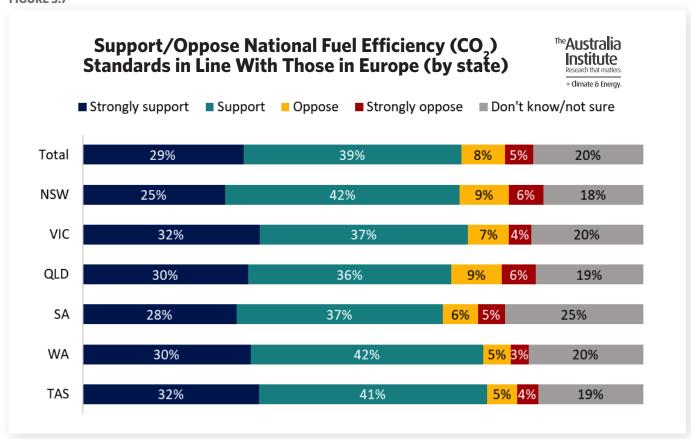


FIGURE 3.7



Fuel efficiency standards help ensure new cars are more efficient and therefore less polluting. Throughout 2022, pressure has mounted on the newly elected Australian Government to introduce fuel efficiency standards.⁴⁶ This pressure comes also from sub-national governments, with the ACT Government Zero Emissions Vehicle Strategy claiming it will explore opportunities with other Australian states and territories if the Commonwealth does not introduce them.⁴⁷ Introducing mandatory fuel efficiency standards would bring Australia's vehicle efficiency in line with much of the global light vehicle market and encourage manufacturers to supply low and zero emissions vehicles to the Australian market.48

Two-thirds (68%) of Australians support the introduction of national fuel efficiency standards in line with those in Europe, which are considered best practice. Support for this policy has increased slightly since last year, rising three percentage points. Support is consistently high across states, ranging from 66% in Queensland to 72% in Tasmania.

Commitments to phase out the sale of internal combustion engine (ICE) vehicles are increasing in countries, jurisdictions and councils around the world. $^{\rm 49}$ Recently, the Committee for Sydney released Decarbonising Sydney, planning for the sale of new fossil fuelled cars to be banned from 2027.⁵⁰ In 2022, the ACT became the first Australian state or territory to move to ban ICE vehicles, announcing plans to end the sale of new petrol and diesel vehicles by 2035,51 similar to a commitment recently announced by the European Union.⁵²

⁴⁶ Ludlow (2022) Call for tougher fuel efficiency standards to encourage EVs, https://www.afr.com/companies/energy/call-for-tougher-fuel-efficiency-standards-to-encourage-evs-20220720-p5b34h

⁴⁷ ACT Government (2022) ACT's Zero Emissions Vehicles Strategy, https://www.climatechoices.act.gov.au/events-news/news/acts-charge-towards-zero-transport-emissions, pp. 27-28 ⁴⁸ Quicke (2022) Fuelling efficiency, https://australiainstitute.org.au/report/fuelling-efficiency/

⁴⁹ Wappelhorst (2021) Update on government targets for phasing out new sales of internal combustion engine passenger cars, https://theicct.org/publication/update-on-government-targets-for-phasing-out-new-sales-of-internal-

⁵⁰ Committee for Sydney (2022) Decarbonising Sydney, https://sydney.org.au/policy-library/decarbonising-sydney/
51 ACT Government (2022) ACT's Zero Emissions Vehicles Strategy, https://www.climatechoices.act.gov.au/events-news/news/acts-charge-towards-zero-transport-emissions

sz European Parliament (2022) Fit for 55: MEPs back objective of zero emissions for cars and vans in 2035, https://www.europarl.europa.eu/news/en/press-room/20220603IPR32129/fit-for-55-meps-back-objective-of-zeroemissions-for-cars-and-vans-in-2035



Climate of the Nation 2022 shows this would be a popular national policy. Two-thirds (64%) of respondents support requiring all new car sales in Australia to be zero emissions vehicles by 2035, similar to the level of support in 2021.

When discussed in focus groups, metro participants tend to agree with the policies of banning the sale of new ICE vehicles by 2035, saying that something needs to be done to "save the planet". Some participants called for an accelerated timeline – to electrify before 2035:

"Why can't they make it universal for the whole of Australia? I don't understand why it's only in the ACT"

(female, 71, inner-metro WA)

"I feel like the sooner the better, like do it next year, go for it... we're going to have to make up for lost time across this entire sector. And Australia above all has done nothing for 10 years...So why not do some drastic action?"

(male, 35, inner-metro NSW)

Yet regional participants were more critical about such policies. Some questioned whether the 2035 goal is realistic, saying the transition to electric vehicles will take more time. Others believed such policies take away the individual's ability to decide if and when to adopt electric technology:

"...you're always going to find where you take away choice, you'll get some resentment; that's just human nature"

(male, 37, regional NSW)

Regional groups would like governments to take initiative and convert all official government vehicles into electric cars first, as a means of 'leading by example'. It was also suggested that when the government is 'finished' with their electric cars, they should sell them to the public, which "sort of puts these cars into the system and people start learning more about them" (male, 49, regional VIC).

For the first time, Climate of the Nation asked about subsidies for large four-wheel drives. According to the National Transport Commission, the increased sales of SUVs and utes in 2022 eroded much of the progress made through increased electric vehicle sales towards reducing the average emissions of the Australian light vehicle fleet.⁵³ SUVs and large commercial vehicles in Australia currently benefit from tax incentives through the instant asset write-off scheme, that allows businesses to use tax paid in previous years to cover the 'losses' incurred this financial year caused by, amongst other things, the purchase of a new vehicle.⁵⁴

Over half of respondents (55%) support removing subsidies for large four-wheel drivers (through the instant asset write-off scheme). Just one-fifth oppose (20%), with one-quarter (26%) unsure. Men are more likely to agree that the subsidy for large four-wheel drives should be removed (63%, compared to 47% of women). By state, respondents in Tasmania are most likely to support this policy (64%) compared to those in Queensland (51%).

sa National Transport Commission (2021) Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2021, https://www.ntc.gov.au/light-vehicle-emissions-intensity-australia sa Saunders and Denniss (2021) One tonne of jobs and growth, https://australiainstitute.org.au/report/one-tonne-of-jobs-and-growth/

Support for transitioning to electric buses

Electric buses are quieter, less polluting and more cost-effective to run than traditional diesel buses. 55 Many Australian states and territories have plans in place to transition their fleets to zero emissions buses, including electric buses. 56 Climate of the Nation 2022 shows that the electrification of Australia's bus fleets by 2030 is a widely popular policy option amongst Australians. Three-quarters of respondents (75%) support electrifying state bus fleets by 2030, with just 14% opposing.

Support for transitioning to electric buses is also strong when phrased in terms of only buying or leasing buses from a particular date, rather than fully electrifying a fleet. Three-quarters of respondents (74%) support state governments buying or leasing only electric buses from 2025. Support is slightly higher in capital cities (76%) compared to regional areas (70%). These results are consistent with similar polling commissioned by the Climate Council in June 2022, that shows 70% of Australians support electrifying the public bus fleet as quickly as possible.⁵⁷

Focus group discussions showed electric buses are perceived as a viable form of transport. Regional groups found electric buses more appealing than electric cars, as they put the onus on government and council to reduce transport emissions, rather than the individual. It is about "your council and government putting their foot forward and leading the way" (female, 32, regional Victoria). Focus group participants thought that having electric buses in the public eye would raise awareness, understanding and acceptance towards electric vehicle technology.

Metropolitan participants unanimously share a positive view on electric buses. The sentiment amongst them was that it is "a great thing" (female, 48, inner-metro NSW, disability) and that such a transition is "eventually going to happen" (male, 33, inner-metro Queensland). Even participants who were sceptical of electric cars said electric buses were a "great concept" (male, 57, outer-metro Queensland, disability).

However, some participants believe that electric buses are more practical in urban areas for short-distance routes, highlighting the need for regional electric bus trials and increased education about how electric buses can meet regional and rural transport needs.

"Most country areas, rural areas, don't have government buses; it's only going to be in capital cities. They're not going to have the distance travel...again that's forgetting rural and remote people"

(female, 69, regional NSW, disability)

Nonetheless, focus group participants believe having a robust public transportation network offers long-term benefits for regional areas, especially in alleviating congestion and in allowing regional populations better access to facilities and jobs in the city.

The majority of respondents (79%) support having the Australian Government provide funding to help bus drivers and mechanics transition to use electric buses, with just 11% opposed. Support for this policy is high across most states (82% in Western Australia and Tasmania, 80% in NSW and Victoria, and 78% in South Australia). Even in Queensland where support is lowest, three-quarters (74%) still support the initiative.

Most school buses in Australia run on diesel fuel. Exhaust from diesel school buses is linked to physical health and cognitive development issues for students. Electric buses have zero tailpipe emissions, and are therefore a far cleaner, healthier alternative. The use of electric school buses instead of diesel buses also reduces greenhouse gas emissions. Most Australians (77%) support transitioning diesel- and gas-powered school buses to zero emissions as soon as possible, with 12% opposed.



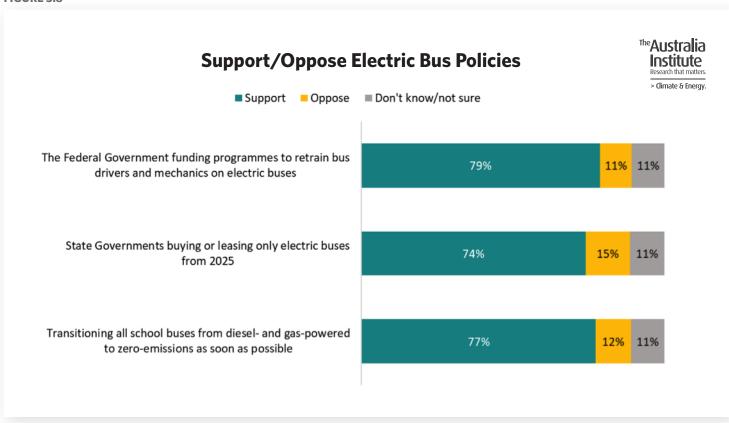
⁵⁵ Borén (2018) Electric buses' sustainability effects, noise, energy use, and costs, International Journal of Sustainable Transportation, https://www.tandfonline.com/doi/full/10.1080/15568318.2019.1666324

56 Quicke and Parrott (2022) Next stop: Zero emissions buses by 2030, https://australiainstitute.org.au/report/next-stop-zero-emissions-buses-by-2030/

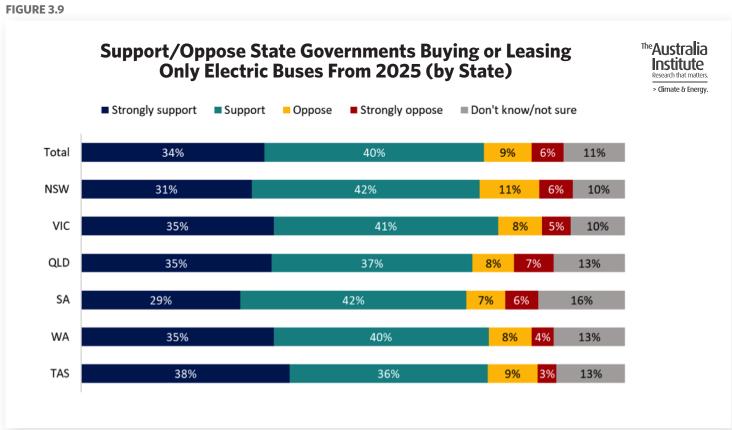
⁵⁷ Climate Council (2022) People and Transport National Poll 2022, https://www.climatecouncil.org.au/resources/australians-want-transport-options-better-for-our-hip-pockets-and-climate/

⁵⁸ Austin, Hautel and Kreisman (2019) School bus emissions, student health and academic performance, Economics of Education Review, https://www.sciencedirect.com/science/article/abs/pii/S0272775719301530

FIGURE 3.8

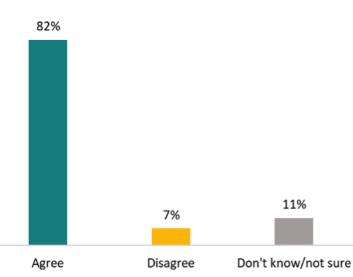






'Major Capital Cities in Australia Should be Connected via High-Speed Rail'





Vast majority of Australians want high speed rail

The Australian Government has committed to building high-speed rail linking Melbourne to Brisbane. In September 2022, legislation was introduced to establish a high-speed rail authority tasked with providing independent advice to government on planning, delivery and coordination between states and territories. ⁵⁹ Climate of the Nation 2022 shows that high speed rail is very popular amongst Australians.

"We don't have that notion of rapid transit that other countries have. We are such a large country, it seems so backward that we haven't thought of ways to transport people ... Even the time it takes to get even from Newcastle to Sydney, or Sydney to Canberra, or between Sydney, Melbourne, these should be distances we could travel really quickly with the right infrastructure and investment, and a rapid train system"

(female, 45, outer-metro ACT)

Most respondents (82%) agree that major capital cities in Australia should be connected via high-speed rail, including 41% that 'strongly agree', and just 7% disagree. Capital cities and regional areas are unified in their support of high-speed rail, with 83% support in capital cities and 81% support in regional areas. For individual states, agreement is highest in NSW (85%) and Victoria (84%), followed by Queensland (80%), South Australia (79%), Western Australia (78%) and Tasmania (76%).





Support for Manufacturing Industry Commission and vocational training strategy

The global transition to electric vehicles and electric vehicle manufacturing is an enormous opportunity for Australia to rebuild its vehicle manufacturing industry. Australia possesses many of the crucial elements for an electric vehicle manufacturing industry, including mineral reserves, a skilled workforce and industrial base – however, government support is needed to fully realise this opportunity.⁶⁰

Three-quarters of respondents (76%) want to see government support to increase domestic manufacturing of zero emission electric vehicles, batteries and component parts (12% oppose and 11% don't know). Four-fifths (79%) also agree that manufacturing electric vehicles domestically would benefit the Australian economy, society, and environment, with 9% disagreeing.

When asked about vocational training for the electric vehicle industry, the majority of respondents (79%) support having a long-term strategy to provide vocational training to ensure that there is a skilled workforce for the manufacturing of electric vehicles, with just 9% disagreeing. Support for this is lowest in Queensland, however three-quarters (76%) of Queensland respondents are still in favour of it.

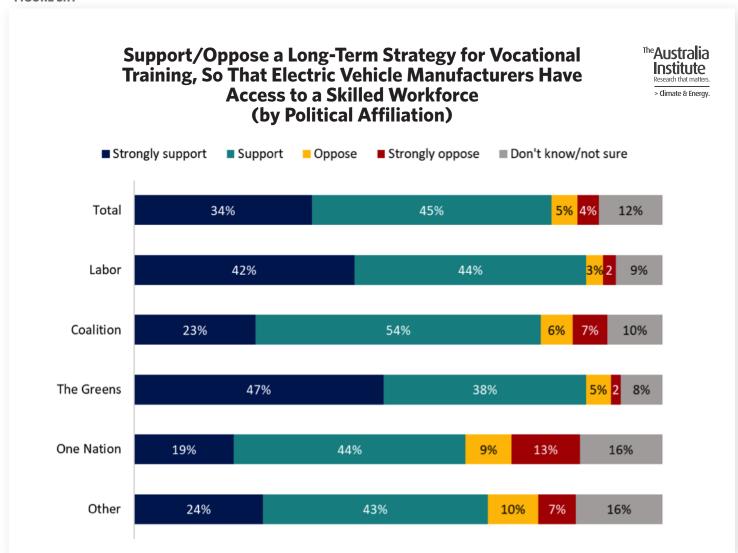
The Australia Institute's Centre for Future Work has recommended the establishment of an EV Manufacturing Commission, tasked with inquiring into Australia's electric vehicle industrial prospects. The Commission would involve a board comprised of stakeholders across government, unions, business and the community, chaired by an electric vehicle expert.⁶¹

Over two-thirds (70%) also support having a Manufacturing Industry Commission to explore Australia's prospects for producing electric vehicles domestically. One-fifth of respondents (18%) say they 'don't know' about this, perhaps reflecting that a Manufacturing Industry Commission is not a well-understood concept.

Of their own volition, focus group participants discussed the domestic manufacturing opportunities that a shift towards electric vehicles could bring. When asked about electric buses, participants noted that electric buses could be manufactured domestically, since "we've got the knowledge, we've got the resources" (male, 49, regional VIC), and this would "keep more people in employment" (male, 46, regional NSW, disability).

⁶⁰ Dean (2022) Rebuilding Vehicle Manufacture in Australia, https://www.carmichaelcentre.org.au/rebuilding_vehicle_manufacture_in_australia

FIGURE 3.11



Mining

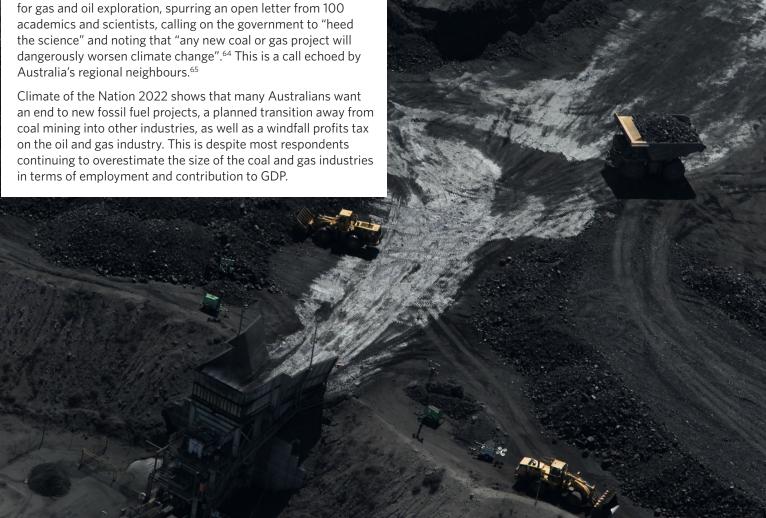
Australia is one of the largest exporters of fossil fuels, which are the primary cause of human induced climate change. The new coal and gas projects planned in Australia as of November 2021 would result in emissions equivalent to almost twice the annual emissions from global aviation, more than three times Australia's annual emissions and more annual emissions than 200 coal-fired power stations, were they to proceed. As the largest exporter of LNG and coal, Australia is a major dealer in the problem and can play a significant role in averting dangerous climate change.

The science is clear – to have the best chance of avoiding catastrophic climate change, fossil fuels must be left in the ground. Despite the 2022 federal election sending a clear mandate for strong climate action, the Labor Government has continued to support fossil fuel exports and approve new fossil fuel mining permits. In August 2022, the Australian Government approved nearly 47,000 square kilometres of Australian waters for gas and oil exploration, spurring an open letter from 100 academics and scientists, calling on the government to "heed the science" and noting that "any new coal or gas project will dangerously worsen climate change".⁶⁴ This is a call echoed by Australia's regional neighbours.⁶⁵

Support for windfall profits tax on the oil and gas industry

During 2022, energy prices increased across the globe following Russia's invasion of Ukraine. Australian LNG exports increased in value, resulting in windfall profits to LNG producers and unaffordable prices for domestic gas users.⁶⁶

Most respondents (61%) support a windfall profits tax on the oil and gas industry, described as 'an additional or higher rate of tax levied on a company or industry when economic conditions result in unexpected profits'. Just one-fifth (19%) oppose a windfall profits tax. Support for a windfall profits tax on the oil and gas industry is broad, with majority support across age, state, gender and voting intention demographics, with the exception of One Nation voters.



⁶² Ogge, Quicke & Campbell (2021) *Undermining Climate Action*, https://australiainstitute.org.au/report/undermining-climate-action/

⁶⁹ BP Energy Statistics (2022) Statistical Review of World Energy - all data, 1965-2021, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil-gas-and-coal-trade.html

⁶⁴ Climate Council (2022) Open Letter to the Minister for Environment, https://www.climatecouncil.org.au/open-letter-to-minister-environment/

Se Brancatisano (2022) 'Our future is at stake'. Pacific Elders call on 'big brother' Australia to take lead on climate change, https://www.sbs.com.au/news/article/our-future-is-at-stake-pacific-elders-call-on-big-brother-australia-to-take-lead-on-climate-change/ttubOxhmr

to-take-lead-on-climate-change/ttubuxnmr 66 Note: A similar question was asked in 2021. The wording has been changed slightly.



Support/Oppose a Windfall Profits Tax on the Oil and Gas Industry (by State)



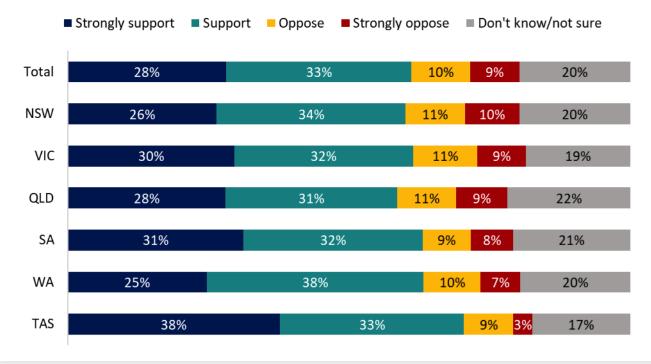


FIGURE 4.1

Support for not approving new gas, coal, or oil projects

The International Energy Agency (IEA) pathway requires no new fossil fuel project be approved in order to avoid 'the worst effects of climate change' by limiting global temperature rise to 1.5°C. A majority of Australians (57%) support Australia following the IEA pathway, and not approving any new gas, coal, or oil projects, including 30% that strongly support this. One-quarter (23%) oppose following the IEA pathway, including 12% that strongly oppose.

Support for stopping the approval of new fossil fuel projects in line with the IEA pathway is strongest amongst younger respondents. Two-thirds (66%) of respondents aged 18-24 and 67% of those aged 25-34 support following the IEA pathway, compared to 62% of those aged 35-49, 50% of those aged 50-64 and 46% of those aged over 65. Support is strongest in Victoria and Tasmania (both 61%) and lowest in NSW, Queensland, South Australia and Western Australia (all 55%). Support is also considerably higher amongst respondents who are linguistically and culturally diverse (65% support) compared to those who are not (53% support).

Support for stopping new coal mines

Two-thirds (64%) of respondents support stopping new coal mines, including 30% that support stopping new coal mines and phasing out existing ones as soon as possible, and 34% that support stopping new coal mines but allowing existing coal mines to operate until the end of their approvals. Just one-quarter (26%) want new coal mines to be allowed, including only 6% that support using taxpayer funds to subsidise new coal mines.

The proportion of Australians that say new coal mines should not be established remains similar to last year (64% in 2022, compared to 66% in 2021).

When phrased as a moratorium on new coal mines, over half of respondents (56%) expressed support. Respondents were informed that this would mean 'Australia would stop building new coal mines and stop expanding existing ones' and that 'existing mines would continue to operate under their current approvals'. One-fifth (21%) oppose a moratorium and one-quarter (23%) don't know or are unsure.

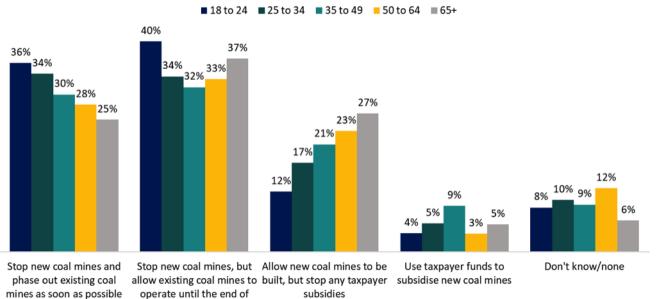
The proportion of Australians that support a moratorium is similar to last year (56% in 2022, compared to 54% in 2021). Support is similar across states, ranging from 54% in Tasmania to 58% in Victoria. Men are more likely to support a moratorium compared to women (61% of men support a moratorium, compared to 52% of women), but are also more likely to oppose a moratorium (25% of men oppose a moratorium, compared to 18% of women), reflecting the large proportion of women that select 'don't know' (30% of women are unsure, compared to 15% of men).

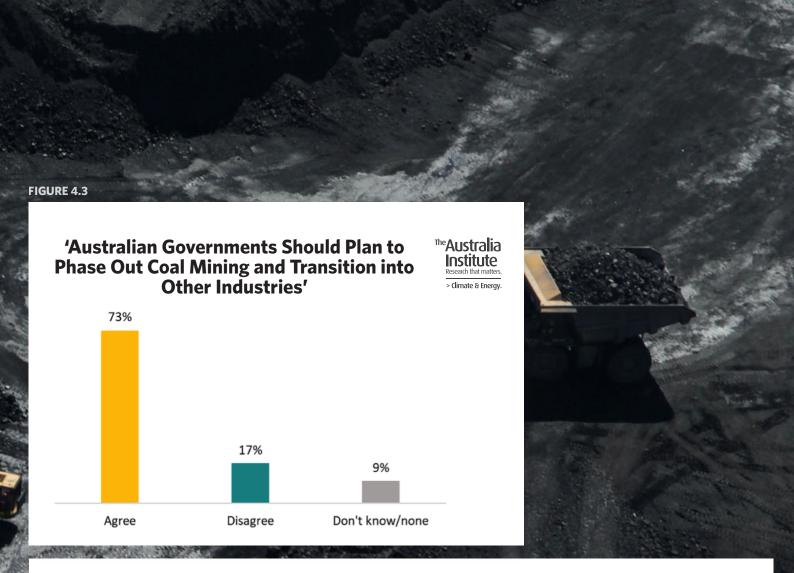
FIGURE 4.2

Preferred Action for the Australian Government to Take Regarding Coal Mines (by Age Cohort)

their approvals







Transition from coal industry welcome

A well-planned and co-ordinated process for coal mine closures can help mitigate potential economic and social costs and assist workers to transition to alternative industries. Countries including Germany and Spain have delivered 'just transition' packages to help manage the industrial transition, diversify regional economies, and establish funds to support affected workers and regions.⁶⁷

Almost three-quarters of respondents (73%) believe Australian governments should plan to phase out coal mining and transition into other industries (the same result as in 2021). Just 17% disagree, similar to the 16% in 2021. Younger respondents tend to be more supportive of a government-planned transition than older respondents, with 81% of those aged 18-24 agreeing, compared to 65% of those aged over 65. Results differ significantly between voting intentions, with 95% of Greens voters agreeing, compared to 85% of Labor voters, 62% of other voters, 60% of Coalition voters and 31% of One Nation voters. The majority (68%) of regional respondents believe governments should plan to phase out coal mining and transition into other industries, compared to 77% of those living in capital cities.

When asked about the economic future of coal, half (49%) of respondents do not believe that coal mining has a strong economic future (the same as in 2021). One-third (34%) of respondents agree with the statement 'coal mining has a strong economic future'. More respondents across every state believe that coal mining does not have a strong economic future than believe that it does.

Just under half (47%) of respondents do not believe that 'the economic benefits of coal mining outweigh its negative impacts on health, the environment, and other industries'. Less than two-fifths (37%) agree with this statement. All age groups are more likely to disagree than agree, with the exception of those aged 35-49, who are more likely to believe that the benefits of coal mining outweigh its negative impacts (46% agree, 40% disagree), compared to those aged 18-24 (21% agree, 59% disagree).



Australians overestimate the size and economic value of the coal industry

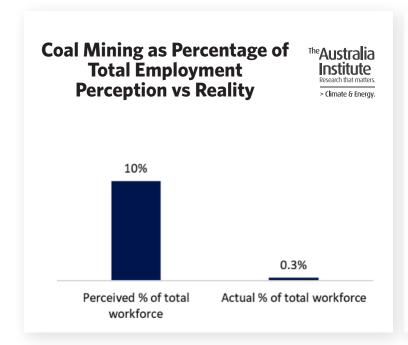
Climate of the Nation explores Australian perceptions of coal industry employment and contribution to gross domestic product (GDP). Consistent with previous years, results show there is a large gap between the public perception of and the actual value of the coal industry. Australians continue to overestimate the size of the coal industry both in terms of employment and economic value.

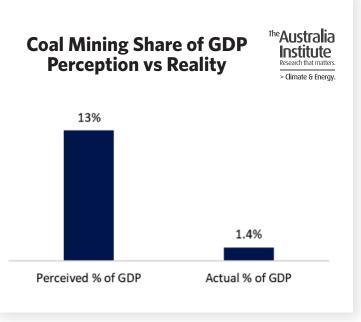
Australians overestimate the size of coal mining employment by a factor of 33. Respondents on average believe the coal mining industry makes up 10% of the total workforce (excluding the 40% that 'don't know'). One-quarter (26%) of respondents believe that coal mining employs at least one-in-ten workers. In reality, coal mining employs around 41,600 workers - just 0.3% of the 13.5 million people employed in Australia.68

Australians also dramatically overestimate the economic value of the coal mining industry in terms of contribution to GDP. Respondents on average believe that the coal industry accounts for 13% of GDP (excluding the 43% that 'don't know'). In fact, the actual figure is around 1.4%, \$29.2 billion of \$2 trillion.⁶⁹

Global demand for coal will fall significantly if advanced economies deliver on their promised commitments to reach net zero emissions by 2050.70 Additionally, research from the Australian National University suggests that China's demand for coal will plateau or fall over the next few years while its domestic coal mining capacity increases, reducing the need for Australian coal.71 The prospect of ending Australian coal exports is likely made more daunting for many people because of the widelyheld misperception that coal mining is a significant source of income and employment for Australia.

FIGURE 4.4



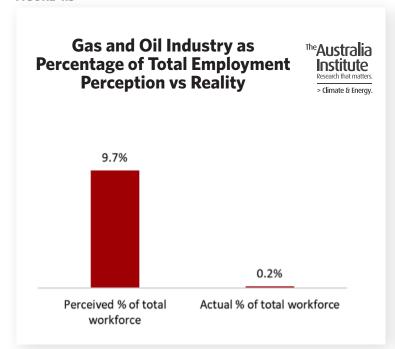


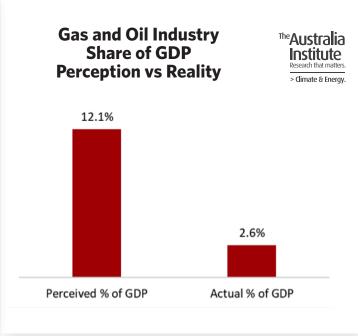
⁶⁸ Average figure for coal mining employment for year to August 2022 in ABS (September 2022) Labour Force, Australia, Detailed, Quarterly, Table 06.

⁶⁹ Average figure for coal mining contribution to GDP in June 2022 in ABS (September 2022) Australian National Accounts: National Income, Expenditure and Product, Table 37.

To International Energy Agency (2021) Net Zero by 2050, https://www.iea.org/reports/net-zero-by-2050
To Gosens, Turnbull and Jotzo (2022) China's decarbonization and energy security plans will reduce seabome coal imports: Results from an installation-level model, Joule, https://www.sciencedirect.com/science/article/abs/pii/ S2542435122001350

FIGURE 4.5





Australians overestimate the size and economic value of the gas industry

Respondents also overestimate the size and economic importance of the oil and gas industry. On average, respondents think the oil and gas industry employs 10% of the Australian workforce (excluding the 43% who 'don't know'). In reality, gas and oil extraction employs around 22,600 workers - 0.2% of the 13.5 million people employed in Australia.⁷² This is an overestimation by a factor of 58.

The share of GDP attributable to oil and gas extraction is also significantly overestimated by Australians. On average, respondents think the oil and gas industry contributes 12% to Australia's GDP (excluding the 45% who 'don't know'). In reality, oil and gas extraction accounts for just 2.6% of Australia's GDP - \$55 billion of \$2 trillion.73

Australian offshore oil and gas is publicly owned by the Commonwealth and subject to the Petroleum Resource Rent Tax (PRRT). The PRRT is meant to be levied at 40% of the taxable profits derived from oil and gas projects, but has been heavily criticised for failing to collect revenue and lacking transparency and oversight.74

Climate of the Nation 2022 shows that, as in other years, there is a considerable gap between the public perception of the amount of revenue collected through the PRRT and the actual amount collected.

On average, Australians believe that the PRRT, described to respondents as 'the main way the Commonwealth government collects revenue from oil and gas exploration and mining', contributed 11% to the federal budget for the 2021-22 year (excluding the 45% who 'don't know'). In reality, the PRRT contributed 0.3% to the federal budget, \$1.7 billion of the total \$557 billion. In other words, respondents perceive the oil and gas industry as contributing around 38 times more to Australian Government revenue than it actually does.

⁷² Average figure for oil and gas extraction employment for year to August 2022 in ABS (September 2022) Labour Force, Australia, Detailed, Quarterly, Table 06.

⁷³ Average figure for oil and gas extraction contribution to GDP in June 2022 in ABS (September 2022) Australian National Accounts: National Income, Expenditure and Product, Table 37.

⁷⁴ Carter & Campbell (2022) Gas-fired robbery, https://australiainstitute.org.au/report/gas-fired-robbery/

Climate Integrity

For the first time, Climate of the Nation 2022 asked Australians about the specific policies and technologies being promoted as methods to reduce Australia's greenhouse gas emissions.

Australian governments and industry have long promoted carbon offsets, carbon capture and storage (CCS), and hydrogen as a significant part of the toolkit to reach net zero emissions. The Morrison Government prioritised these 'low emissions technologies'⁷⁵ through its Technology Investment Roadmap. Billions were committed to these risky and questionable technologies that could otherwise be spent on renewable energy, electrification and other well-established decarbonisation measures that can be rolled out immediately.76

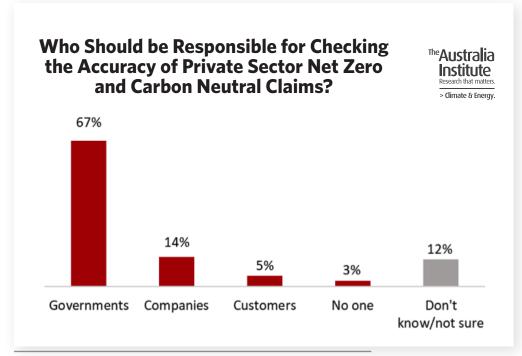
Governments should police net zero claims

The private sector is increasingly and voluntarily setting net zero targets to demonstrate its climate ambition to customers, shareholders and other stakeholders. Net zero targets are more common among companies in high-emitting sectors such as fossil fuels, steel, cement, and transportation.⁷⁷ However, while more companies have net zero targets than ever before, emissions from Australia's largest polluters have been increasing, bringing into question the integrity of offsets and net zero claims.78 At present, Australia does not have a comprehensive disclosure framework to verify progress towards net zero targets or the carbon neutral claims of companies.

Most Australians believe that it should be the responsibility of governments to verify 'net zero emissions' and 'carbon neutral' claims made by companies. Two-thirds (67%) of respondents believe governments should be responsible for checking the accuracy of claims, while only 5% believe that customers should be responsible. Less than one-sixth of Australians (14%) believe it is the responsibility of companies to check the accuracy of their claims, and 3% say that 'no one' should be responsible.

A large majority of respondents across age groups, state and political affiliation, with the exception of One Nation voters, believe governments should be responsible for checking claims. Even among One Nation voters, more believe governments should be responsible (43%) compared to any other option - 15% believe companies should be responsible, 6% believe customers should be responsible and 15% believe 'no one' should be responsible.

FIGURE 5.1



⁷⁵ Department of Industry, Science, Energy and Resources (2022) Technology Investment Roadmap: First Low Emissions Technology Statement 2020, https://www.dcceew.gov.au/climate-change/publications/technology-investment-roadmap

⁷⁶ Armistead (2021) *Dirty and Dodgy: false climate solutions*, https://australiainstitute.org.au/post/dirty-and-dodgy-false-climate-solutions/

NewClimate Institute (2022) Net Zero Stocktake 2022, https://newclimate.org/resources/publications/net-zero-stocktake-2022
RepuTex Energy (2022) REPORT: Modelling Potential Futures for Australia's Safeguard Mechanism, https://www.reputex.com/research-insights/report-modelling-potential-futures-for-australias-safeguard-mechanism/

Most Australians are not confident they know what a carbon credit is

To meet their net zero or carbon neutral targets, Australian businesses may buy carbon credits to offset their emissions. Carbon credits are issued for emissions reduction projects, with each carbon credit unit representing one tonne of greenhouse gases removed or prevented from entering the atmosphere. Businesses may purchase carbon credits to negate greenhouse gases they have emitted, known as offsetting. In July 2022, the Australian Government announced an independent review into the integrity of local carbon credits, ⁷⁹ following serious concerns that most Australian carbon credits do not represent real and additional abatement. ⁸⁰

Despite the growing prevalence of offsetting emissions using carbon credits, the concept of carbon credits is not well-understood amongst respondents. Only 44% of Australians say that they are confident that they know what a carbon credit is, including 14% who say they are 'very confident'. Two-fifths of respondents (39%) say that they are 'not at all confident' they know what a carbon credit is.

Those aged 25-49 are the most likely to know what a carbon credit is. Just over half (52%) of respondents aged 25-34 and more than half (54%) of respondents aged 35-49 say that they know what a carbon credit is. By contrast, half of those aged over 65 (50%) say that they are 'not at all confident' they know what a carbon credit is.

Knowledge of carbon credits also varies between genders, with men more likely to say they are confident they know what it is (58%), compared to women (31%). Almost half (47%) of women are 'not at all confident', compared with less than one-third (30%) of men.

Carbon capture and storage should be funded by those responsible for emissions

Carbon capture and storage (CCS) refers to technologies that capture carbon dioxide from industrial facilities or directly from the atmosphere and store it underground.⁸¹ The Australian Government has been a long-standing supporter of and investor in CCS despite little to show for it. Over the last two decades, over \$4 billion in public funding has been committed to CCS projects and initiatives.⁸²

Most Australians are not familiar with CCS. When asked how familiar they are with the concept of CCS, around one-tenth (9%) of respondents say they are 'very familiar' with CCS and one-fifth (19%) say they are 'somewhat familiar'. More than one-quarter (29%) of respondents 'have heard of it', while the same amount (29%) have 'never heard of it'.

Greens voters are most likely to say they are 'very familiar' with CCS (15%) compared to Labor (11%) and Coalition (8%) voters. Familiarity with CCS also varies between age groups. Almost one-fifth (18%) of those aged 35-49 are 'very familiar' with the concept of CCS, compared to just 3% of those aged over 65. Additionally, men are more than twice as likely than women to say they are familiar with CCS (40% for men, compared to 16% for women), and half as likely to say they have 'never heard' of CCS (18% for men, compared to 38% for women).

After being informed that CCS is a technology designed to capture carbon dioxide before it enters the atmosphere and store it underground, respondents were asked who, if anyone, should pay for CCS projects. They were also informed that CCS has been used to support fossil fuel projects to reduce their emissions.

Most Australians (61%) believe that CCS projects should be funded by 'those responsible for the emissions'. Very few Australians believe that CCS projects should be publicly funded (7%) and 12% believe CCS projects 'should not be funded' at all.

A majority of Labor (65%) and Coalition (61%) voters believe that CCS projects should be funded by 'those responsible for the emissions'. Across all political affiliations, no more than one-tenth (10%) of Australians believe CCS should be funded by taxpayers, including 8% of Labor and 10% of Coalition voters.

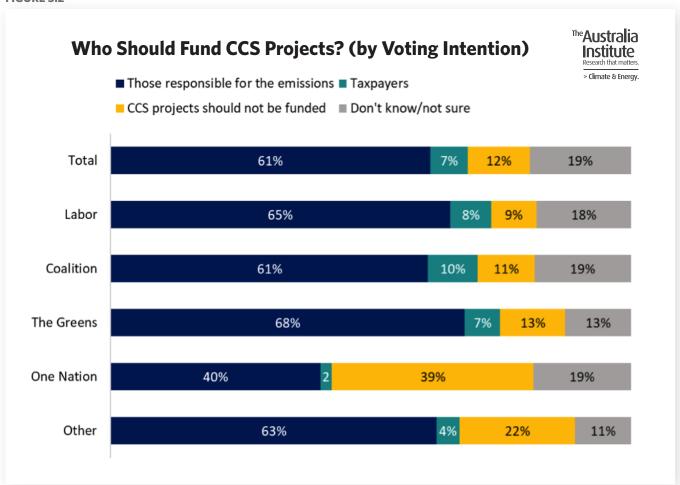
⁷⁹ The Hon Chris Bowen MP (2022) Independent Review of ACCUs, https://minister.dcceew.gov.au/bowen/media-releases/independent-review-accus

⁸⁰ Hemming, Armistead & Venketasubramanian (2022) An Environmental Fig-leaf, https://australiainstitute.org.au/report/an-environmental-fig-leaf/

In Global CS Institute (2022) What is Carbon Capture and Storage and How Does it Work? https://www.globalccsinstitute.com/resources/ccs-101-the-basics/

Whoris (2021) As carbon capture, storage commitments near \$44b, what are the options for heavy industry?, https://www.abc.net.au/news/2021-08-21/taxpayer-bill-for-carbon-capture-and-storage-hits-4-billion/100375854

FIGURE 5.2



Support lacking for government investment in fossil hydrogen

Australia's National Hydrogen Strategy sets out a vision for Australia to be a leading exporter of 'clean hydrogen', a misleading term which includes both green hydrogen and hydrogen produced from fossil fuels with carbon capture and storage. Green hydrogen is produced from the splitting of water molecules and, when the process is powered using renewable energy, is emissions-free. Hydrogen can also be produced from natural gas or coal, which can result in more emissions than burning the fossil fuel directly. Previous polling has found that only one-fifth (22%) of Australians know the definition of 'clean hydrogen' as defined by the previous federal government.

Australians are divided on government investment in hydrogen. One-third (35%) of respondents say that 'Australian governments should invest in both green hydrogen and hydrogen produced from fossil fuels with carbon capture and storage'. More than one-quarter of respondents (29%) say that 'Australian governments should invest only in green hydrogen', while 5% say they should 'only invest in hydrogen produced from fossil fuels with carbon capture and storage', and 7% say Australian governments should 'not invest in any hydrogen at

⁸³ Department of Industry, Science, Energy and Resources (2019) Australia's National Hydrogen Strategy, https://www.dcceew.gov.au/energy/publications/australias-national-hydrogen-strategy

⁸⁴ Ogge (2022) Brown Coal, Greenwash, https://australiainstitute.org.au/report/brown-coal-greenwash/
85 The Australia Institute (2022) Polling - What is 'clean hydrogen'? https://australiainstitute.org.au/report/polling-what-is-clean-hydrogen/

Fossil Fuel Subsidies

Australian governments continue to subsidise fossil fuel production and consumption, while communities across the country bear the costs of disasters exacerbated by fossil fuel use. In 2021-22, fossil fuel subsidies cost \$11.6 billion across all federal, state and territory governments, equivalent to \$22,139 per minute spent on fossil fuel production and consumption. In the last year, the Federal Government increased subsidies by \$1.4 billion, with a large portion for fossil fuel infrastructure.86 According to the UN Secretary-General António Guterres, 'investing in new fossil fuel infrastructure is moral and economic madness', as these investments fuel catastrophic climate change and will likely result in stranded assets.87

As commercial banks face growing pressure to stop financing fossil fuels, public financing agencies are stepping in to take on the financial risk. Export Finance Australia (EFA) and the Northern Australia Infrastructure Facility (NAIF) have both been significant financial supporters of fossil fuel projects. Between 2009 and 2020, EFA provided financing (including refinancing) of up to \$1.69 billion to the coal, oil and gas industry. Similarly, NAIF provided \$91.3 million to fossil fuel projects and a further \$522 million to projects with a fossil fuel component. 88 This is despite Australia, along with other major economies that make up the G20, promising to phase out 'inefficient fossil fuel subsidies' back in 2009.89

Climate of the Nation 2022 shows that Australians are more likely to oppose fossil fuel subsidies than support them and would prefer for this money to be spent on other services including healthcare, cost of living support, disaster recovery and climate mitigation measures.

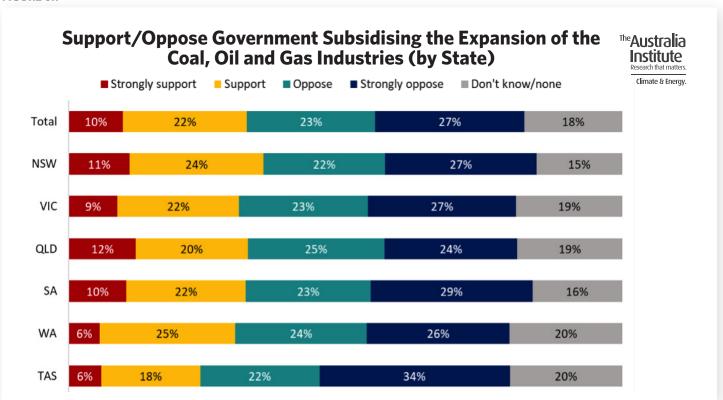
More oppose than support fossil fuel subsidies

Half of Australians (50%) oppose the government putting public funds into infrastructure to subsidise the expansion of the coal, oil and gas industries, compared to around one-third (32%) that are supportive.

Public opposition to fossil fuel subsidies remains at similar levels to last year (50% oppose in 2022, compared to 51% in 2021), however support has increased slightly (32% in 2022, from 29% in 2021). The increase in support coincides with fewer 'don't know' responses. This may reflect an increased awareness of fossil fuel subsidies amongst the public, following increased scrutiny of the Labor Government's position on financing new fossil fuel projects.90

Support for fossil fuel subsidies has increased slightly across most age groups, and has increased significantly for those aged 35-49, reaching 41% in 2022, a 10 percentage point increase from 31% in 2021. Support for fossil fuel subsidies has also increased this year in NSW (35%, up from 29% in 2021), South Australia (32%, up from 25% in 2021), Western Australia (30%, up from 25% in 2021), and Queensland (32%, up from 29% in 2021). Support for subsidising fossil fuels has decreased in Tasmania, reaching 24% in 2022, down from 26% in 2021.

FIGURE 6.1



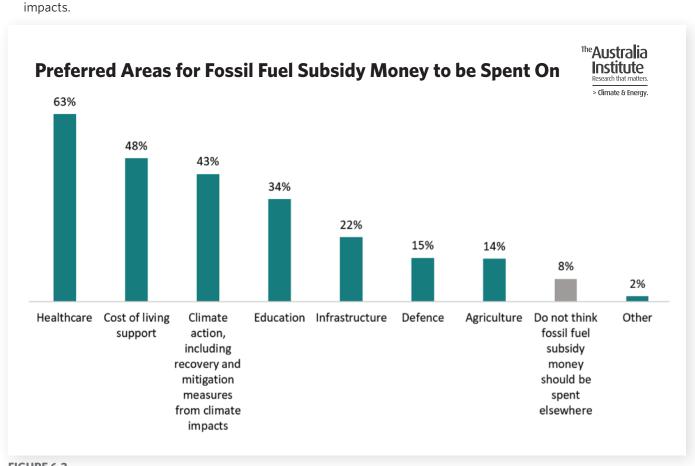
⁸⁶ Armistead et al. (2022) Fossil fuel subsidies in Australia (2021-22), https://australiainstitute.org.au/report/fossil-fuel-subsidies-in-australia-2021-22/

stunited Nations Secretary-General (2022) Secretary-General Warns of Climate Emergency, Calling Intergovernmental Panel's Report 'a File of Shame', While Saying Leaders 'Are Lying', Fuelling Flames, https://press.un.org/en/2022/ sgsm21228.doc.htm

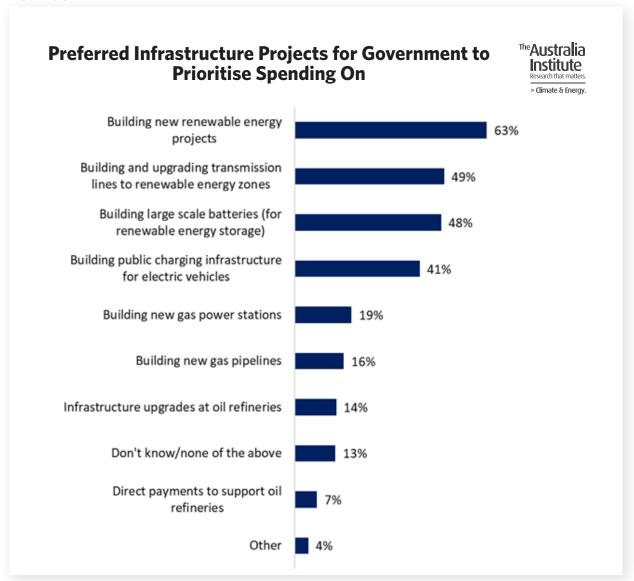
Jubilee Australia (2021) Hot Money, https://www.jubileeaustralia.org/resources/publications/hot-money-2021

⁹⁰ G20 Research Group (2009) G20 Leaders Statement: The Pittsburgh Summit, http://www.g20.utoronto.ca/2009/2009communique0925.html 90 Morton, Murphy and Karp (2022) Greens in 'powerful position' on climate as Labor faces scrutiny over Coalition's 'gas-fired recovery' projects, https://www.theguardian.com/ australia-news/2022/aug/03/greens-in-powerful-position-on-climate-as-labor-faces-scrutiny-over-coalitions-gas-fired-recovery-projects





healthcare, just under half (48%) would prefer it spent on cost of living, and 43% would prefer it spent on climate action, including recovery and mitigation measures from climate



Renewables, not fossil fuels, preferred focus for government infrastructure spending

Australians believe building new renewable energy projects should be the top priority for government infrastructure spending. Respondents were asked to select infrastructure projects that they would prefer government to prioritise spending on from a list of ten options, including options to specify their own or select 'don't know/none of the above'.

As in 2021, the top three funding priorities are building new renewable energy projects (63%), building and upgrading transmissions lines (49%), and building large scale batteries (48%). Support for building new renewable energy projects is highest in Tasmania (69%), NSW (65%) and Victoria (64%), and a top priority amongst both Labor (72%) and Coalition (53%) voters.

The lowest priorities for government spending are direct payments to oil refineries (7%), infrastructure upgrades at oil refineries (14%), building new gas pipelines (16%) and building new gas power stations (19%). Of the 4% of respondents who selected 'other', many preferred spending on nuclear power. Other answers included building more hydroelectric dams, better public transport, and rebates for home batteries.

Cost of Climate Inaction

Australia's economy faces significant challenges due to climate change. The huge economic costs of extreme weather events, fuelled by climate change, are already being felt, as is the need to protect and adapt ecosystems, infrastructure and homes from extreme weather events. Most recently, the 2022 East Coast floods left a wake of destruction and displacement. The Insurance Council of Australia has estimated the insured losses from the flood events at \$3.35 billion, making them Australia's costliest flood event.91

Australia is poorly prepared to deal with climate change impacts and their costs. Unlike most nations in the Organisation for Economic Co-operation and Development (OECD), Australia does not have a climate adaptation plan to prepare for climate impacts like floods and bushfires. 92 A national adaptation plan informed by a national risk assessment would coordinate local, state, territory and federal government responses to climate impacts to mitigate the risks faced by communities.

Currently, the growing costs of climate-fuelled extreme weather events are paid by everyday Australians through property loss,

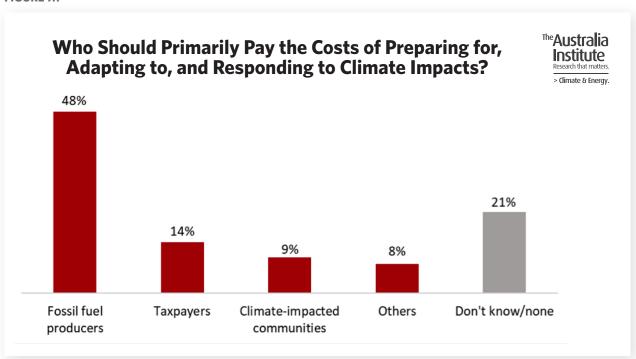
Federal Government is not doing enough to prepare for and adapt to climate change

More than half (52%) of Australians believe the Federal Government is 'not doing enough' to prepare for and adapt to the impacts of climate change. Less than one-quarter (23%) think that the Federal Government is 'doing enough', and only 13% think that it is 'doing too much'.

Differences in opinion regarding how well the Federal Government is preparing for and adapting to climate impacts run along political lines. Almost three-fifths (57%) of Labor voters say the Federal Government is not doing enough, compared to one-third (32%) of Coalition voters. Over one-third (36%) of Coalition voters and one-quarter (26%) of Labor voters think the Federal Government is doing enough. One-fifth (22%) of Coalition voters believe the Federal Government is doing too much, compared to just 8% of Labor voters.



FIGURE 7.1



Respondents from Tasmania tend to have a more negative view of the Federal Government's climate adaptation response, compared to respondents from other states (65% of Tasmanians think the Federal Government is not doing enough, compared to the national average of 52%). This may be related to a stronger belief that climate change is a serious matter (36% of Tasmanians 'strongly disagree' that the seriousness of climate change is exaggerated, compared with a national average of 28%).

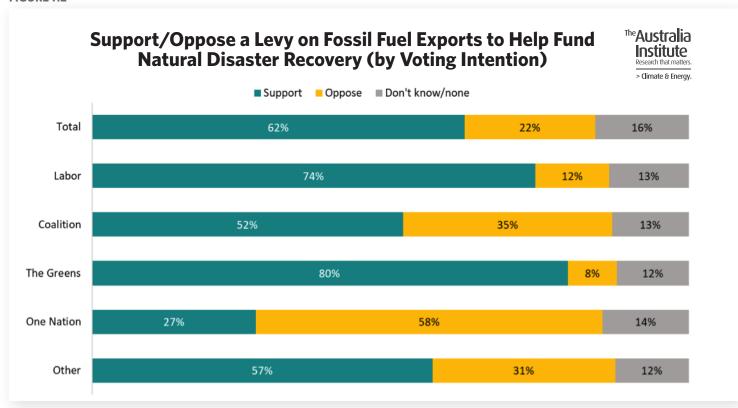
Younger Australians are more likely to hold the view that the Federal Government is not doing enough to prepare for and adapt to the impacts of climate change. Three-quarters (74%) of respondents aged 18-24 say the government is not doing enough, compared to 45% of those aged over 65. This aligns with a broader trend among young people regarding the concern over the immediacy and severity of climate impacts. Globally, some young people fear having children due to climate change, 3 and young Australians have been increasingly vocal and visible in calls for climate action such as through the School Strikes 4 Climate. 4

Fossil fuel producers should pay the costs of responding to climate change

Australians believe that fossil fuel producers should carry the costs of responding to climate change. When asked who should primarily pay the costs of preparing for, adapting to, and responding to global warming impacts, half (48%) of respondents say that fossil fuel producers (such as coal, gas and oil companies) should pay the costs of responding to climate change. This is similar to results from previous years (51% in 2021 and 50% in 2020 said fossil fuel producers should primarily pay the costs). One-seventh (14%) say taxpayers should bear the costs and just 9% say the burden should fall on people facing climate change impacts (such as coastal communities or those in bushfire or flood prone areas).

Regardless of gender, age group, state, or political affiliation, most respondents agree that fossil fuel producers should primarily foot the bill for climate change. Respondents aged 25-34 are more likely than other age groups to say fossil fuel producers should pay for climate impacts (59%, compared to 42% of those aged over 65). Only 15% of Labor and 15% of Coalition voters say taxpayers should foot the bill for climate impacts, and one-tenth (9%) of Labor voters and 13% of Coalition voters believe people facing climate change impacts should pay the costs of climate impacts.

FIGURE 7.2



Support for a levy on fossil fuel exports to fund climate impacts

The Australia Institute has proposed the introduction of a National Climate Disaster Fund to shift the cost burden of disaster response and recovery away from Australian households and taxpayers. The Fund would raise around \$1.5 billion per year, through a modest levy of \$1 per tonne of embodied carbon on all fossil fuel exports from Australia. ⁹⁵ This would cover only fraction of the damage bill from natural disasters, which currently costs the Australian economy \$38 billion a year and is estimated to increase to \$73 billion by 2060. ⁹⁶

Climate of the Nation 2022 shows this levy is popular among Australians. Over three-fifths (62%) of respondents support a levy on fossil fuel exports to fund local government actions to prepare for, and protect from, the consequences of climate change, including one-quarter (25%) of respondents who strongly support it. Support for the levy is similar to last year (61% support in 2021).

The popularity for the levy is also broad across genders, age groups, states, and political affiliations, with the exception of One Nation voters. Three-quarters (74%) of Labor voters and over half (52%) of Coalition voters support a levy. Support is highest among those aged 25-34 (71%, compared to 57% among those aged over 65). While support for a levy is higher among residents of capital cities (65%, compared to 59% of regional residents), opposition is similar between urban and regional areas (21% of capital city residents and 23% of regional residents oppose a levy).

⁹⁵ The Australia Institute (2020) The National Climate Disaster Fund, https://australiainstitute.org.au/initiative/the-national-climate-disaster-fund/

Note: This includes all natural disasters. Insurance Australia Group (2022) Natural Disasters estimated to cost Australia \$73 billion per year by 2060, https://www.iag.com.au/newsroom/community/natural-disasters-estimated-cost-australia-73-billion-year-2060

Climate Action

The 2022 federal election result marked a turning point for climate action in Australia. The newly elected Labor Government has committed to update Australia's emissions reductions target, restore the Climate Change Authority (an independent body to provide science-based climate advice to government) and bid to host a United Nations Conference of the Parties (COP) in partnership with a Pacific Island country. In September 2022, the Labor Government's climate bill passed federal parliament, enshrining a new emissions reduction target (of 43% below 2005 levels by 2030) into law.97 However, while the new target is more ambitious than Australia's previous 26-28% target set by the Morrison Government, it is less ambitious than the target previously proposed by the Labor Party during the 2016 and 2019 elections (45%), as well as those set by the EU, the UK and the US. It is also inconsistent with global efforts to limit warming to 1.5 degrees.98

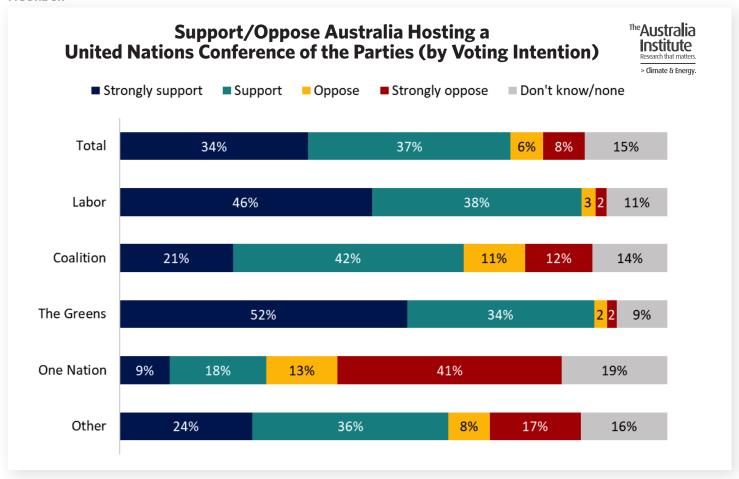
Climate action was a dominant theme of the 2022 federal election and the new Labor Government will need to go further to meet public expectations. As discussed in other chapters, Australia must end coal-fired power generation, stop subsidising, expanding, and exporting fossil fuels, regulate major industrial emitters, and restore integrity to the carbon offset scheme, to play its role in the global effort to limit climate change.

Climate of the Nation 2022 shows many Australians support more ambitious climate policy and want to see Australia playing a leading role in international climate action. There is strong support for Australia to host a COP, and to include a climate trigger in the *Environmental Protection and Biodiversity Conservation (EPBC) Act*. Additionally, respondents from all states and territories see a standalone role for state and territory governments in combatting climate change.

Support for Australia hosting a COP

In December 2021, the Australian Labor Party committed to bid for the Conference of the Parties (COP) meeting in partnership with a Pacific Island nation. The COP is the biggest event in the United Nations (UN) system which takes place annually at the end of the calendar year. Australia has never hosted a COP and only once has a Pacific Island nation hosted – Fiji were the official hosts of COP23, although the event was held in Bonn, Germany, as the infrastructure required for such a large conference was too great for it to be held in Suva. An Australian COP hosted in partnership with Pacific neighbours is an opportunity to reset Australia's battered international climate reputation.⁹⁹

FIGURE 8.1



⁹⁷ Parliament of Australia (2022) Climate Change (Consequential Amendments) Bill 2022, https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bld=r6886

⁹⁸ Hare and Maxwell (2022) Australian election 2022 political party and independent climate goals: analysis, https://climateanalytics.org/publications/2022/australian-election-2022-political-party-and-independent-climate-

goals-arianysis/ ⁹⁹ Merzian, Verschuer and Parrott (2022) COP29 in Australia, https://australiainstitute.org.au/report/cop29-in-australia/

More than two-thirds of respondents (71%) support Australia hosting this conference, after being informed that the Australian Government plans to bid to co-host a COP with Pacific Island countries. This includes one-third of respondents (34%) that strongly support Australia hosting a COP, while 14% of respondents oppose Australia hosting a COP.

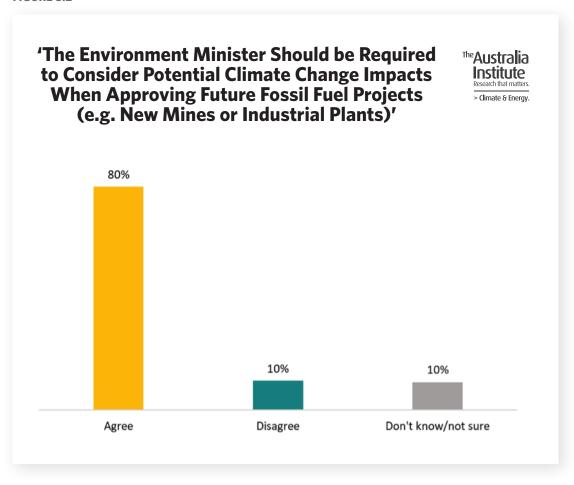
Men and women show similar levels of support (73% of men support, compared to 69% of women), as do respondents across states (ranging from 69% support in Queensland to 74% support in Victoria). Support is higher in urban Australia than in the regions (74%, compare to 67% respectively). Across all political affiliations, with the exception of One Nation voters, there is majority support for hosting a COP. Support is strongest amongst Greens voters (87%), Labor voters (84%), Coalition voters (63%), and other voters (60%) compared to 27% for One Nation voters.

Climate should be considered in environmental approvals

The Greens have proposed including a 'climate trigger' into the EPBC Act, Australia's central environmental law. Under the EPBC Act, a project must be assessed by the Federal Government (through the Environment Minister) if it is likely to have a significant impact on a 'matter of national environmental significance'. These include world heritage properties, wetlands, migratory species, along with others. The Greens proposal would include climate change as a matter of national significance, allowing the Environment Minister to veto projects based on their potential climate impacts.

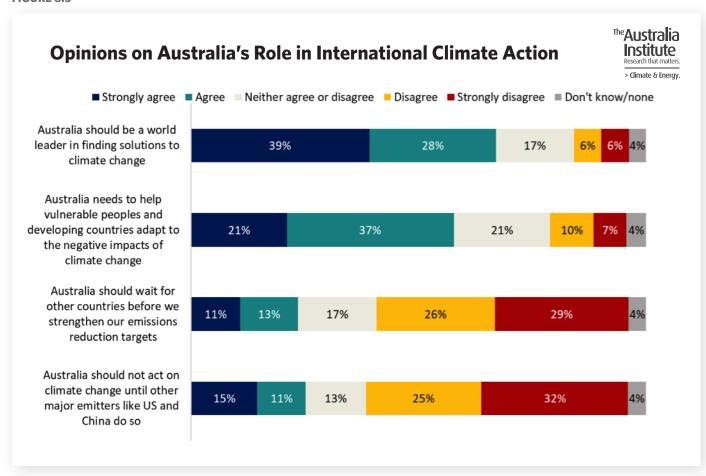
Respondents were asked whether they agreed or disagreed with the statement 'The Environment Minister should be required to consider potential climate change impacts when approving future fossil fuel projects (e.g. new mines or industrial plants)'. Four-fifths of Australians (80%) agree with this, including 43% that strongly agree. Just 10% disagree. Across all voting intentions, more respondents agreed than disagreed with this statement.

FIGURE 8.2



¹⁰⁰ Parliament of Australia (2022) Environment Protection and Biodiversity Conservation Amendment (Climate Trigger) Bill 2020, https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bid=s1255

FIGURE 8.3



Australia should be a world leader on climate change

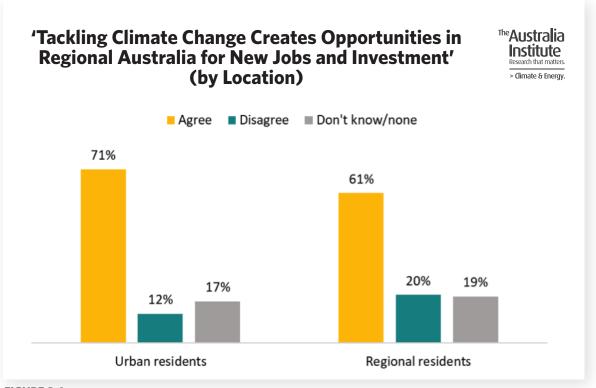
Respondents were asked a number of questions about the role that Australia should play in the international movement to combat climate change. Two-thirds (67%) believe that Australia should be a world leader in finding climate change solutions, which remains unchanged from last year. Agreement continues to be higher for those aged 18-34 (75%) compared to those aged over 65 (57%). However, opinions across the states have changed. Whilst agreement is now higher in Tasmania (73%, a four percentage point increase) and Western Australia (70%, a five percentage point decrease). In fact, disagreement in NSW rose by four percentage points to 15%.

Almost three-fifths (58%) of Australians say that the nation needs to help developing countries adapt to climate change, with 17% disagreeing with this statement. Two-thirds (67%) of those who are culturally and linguistically diverse agree that Australia should help developing nations, compared to 54% of those that are not culturally or linguistically diverse. The view that Australia should help developing countries adapt to climate change is more widely held amongst Labor supporters (68% agree), compared to Coalition supporters (47% agree).

Over half (55%) of respondents disagree with the statement 'Australia should wait for other countries before we strengthen our emissions reduction targets', while one-quarter (23%) agree. Younger respondents tend to think Australia should not wait (67% of those aged 18-24), compared to 54% of those aged over 65. Similarly, more than half of respondents (58%) disagree that Australia should wait for other major emitters like the US and China before it acts on climate change, with 25% agreeing. Agreement that Australia should wait is highest in the coal-exporting states of Queensland (30%) and NSW (27%).



With the exception of One Nation voters, a majority of respondents across voting intentions agree with this. Additionally, a majority of both regional and urban Australians agree with this, however urban Australians are 10 percentage points more likely to agree (71%, compared to 61% of regional Australians).



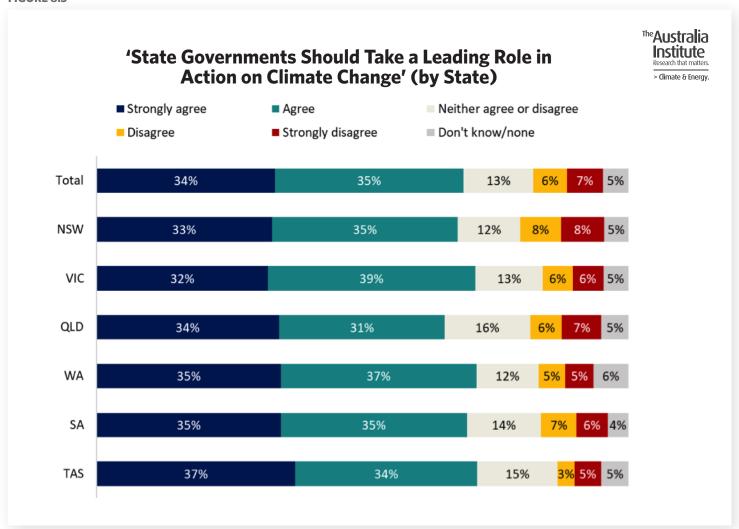
State and territory governments should act on climate

Most Australians (69%) believe that state governments should take a leading role in action on climate change, including one-third (34%) that 'strongly agree' with this statement. This view is becoming more accepted across most age groups, as seen amongst those aged 18-34 (74%, a two percentage point increase from 2021), aged 35-49 (75%, a four percentage point increase from 2021), and aged 50-64 (66%, a four percentage point increase from 2021). Agreement levels remain the same as in 2021 for those aged over 65.

Residents in Tasmania and Victoria, states with some of the most ambitious climate policies in Australia (including high renewable targets and net zero commitments), 101 102 increasingly agree that state governments should assume a leading role for climate action (72% in Tasmania, a five percentage point increase from 2021, and 71% in Victoria, a four percentage point increase from 2021). Support has also increased in Queensland (65%, a four percentage point increase from 2021).

Respondents also believe that state governments should act on climate change regardless of what other actors are doing. More than two-thirds (70%) agree that state governments should act, including 35% that strongly agree, while 13% disagree. Agreement continues to be stronger amongst younger respondents than for those aged over 65, however, agreement levels have increased by four percentage points to 76% amongst those aged 35-49. A majority of both Labor supporters and Coalition supporters agree with this view (83% and 54% respectively).

FIGURE 8.5



¹⁰¹ Baker (2021) Tasmanian Government aims for net zero emissions by 2030, https://www.abc.net.au/news/2021-10-13/tas-state-govt-aims-for-net-zero-emissions-by-2030/100535206

¹⁰² McCubbing (2022) Victoria announces country's biggest energy storage target, https://www.afr.com/policy/energy-and-climate/victoria-announces-country-s-biggest-renewable-energy-capacity-target-20220927-p5blap

Demographic Snapshot

Attitudes to climate change and support for climate action differ between gender, age groups, and to a lesser extent, states.

Gender

Climate of the Nation 2022 results shows that women tend to be more concerned about climate change and climate change impacts compared to men (78% of women are concerned about climate change, compared to 72% of men), consistent with other research on climate attitudes.¹⁰³

Women are more likely to believe that the Federal Government is 'not doing enough' to prepare for and adapt to climate change (58%) compared to men (45%), which may reflect a higher expectation of government action on climate change or a more critical view of government among women.

Results also reveal a confidence gap between genders. Men are more comfortable talking to friends and family about climate change compared to women (40% of men say they are 'very comfortable', compared to 28% of women). Similarly, men are more likely than women to say that they are familiar with carbon capture and storage (14% of men are 'very familiar' compared to 4% of women) and that they are confident they know what a carbon credit is (22% of men 'very confident' compared to 6% of women).

In addition, women are more likely than men to respond 'don't know' to questions, consistent with other survey research. 104
For example, while men are more supportive of a windfall profits tax on the oil and gas industry compared to women (65% of men support, compared to 57% of women), they are also more likely to oppose it (23% of men oppose compared to 15% of women). This pattern (where men are both more supportive than women and more opposed) is seen in responses to the vast majority of questions asked.

However, there are several climate policies where women show higher support compared to men. Women are more likely to think state governments should take a leading role in action on climate change (71% women agree, 67% of men agree), women are more supportive of government subsidies to reduce the cost of electric vehicle purchases (76% for women, 73% for men) and more likely to support the phase-out of coal-fired power generation in the next ten years (42% for women, 33% for men).

Age

Attitudes towards climate change differ between age groups. Concern about climate change is higher among younger age cohorts (79% of those aged 18-24, 84% of those aged 25-34 and 81% of those aged 35-49 are concerned) compared to the older age cohorts (69% of those aged 50-64 and 66% of those aged over 65 are concerned), consistent with results from previous years.

The vast majority (90%) of those aged 18-24 support a phase out of coal-fired power stations either as soon as possible or gradually, an increase from the 87% that supported this in 2021. Those aged 18-24 generally have a negative view of fossil fuels, however, compared to older age groups, they are more likely to respond 'don't know' to more specific or complex fossil fuel policies, such as a levy on fossil fuel exports, a windfall profits tax, and questions about the economics of coal.

There is strong support among those aged 25-34 for climate impacts to be considered during environmental approvals of fossil fuel projects (86% support, compared to 80% nationally), and they are more likely than other age cohorts to believe that fossil fuel producers should pay for climate impacts (59%, compared to 48% nationally).

While those aged 35-49 continue to show a high level of concern about climate change (81%), they are more likely in 2022 to think the seriousness of climate change is exaggerated (36% in 2022, compared to 29% in 2021), and slightly more likely to believe that coal-fired power plants should be run for as long as possible (up six percentage points to 15% in 2022). They are also more likely to blame increasing electricity prices on the closure of coal plants (up 11 percentage points to 29% in 2022), but have increased support for a moratorium on new coal mines (60% in 2022, compared to 55% in 2021) and a levy on fossil fuel exports (68% in 2022, compared to 62% in 2021).

Respondents aged 50-64 are concerned about climate change, but to a slightly lesser degree than younger respondents (69%, compared to 75% nationally). They are the least supportive of spending public money on infrastructure to subsidise the expansion of the coal, oil and gas industries (24% support, compared to 32% nationally). Those aged over 65 are less concerned about climate change than other respondents (66%, compared to 75% nationally), but believe governments should be responsible for checking the net zero and carbon neutral claims of companies (73% compared to 67% nationally) and are very supportive of high-speed rail (87% compared to 82% nationally).

¹⁰³ Knight and Givens (2021) Gender and climate change views in context: a cross-national multilevel analysis, The Social Science Journal, https://www.tandfonline.com/doi/full/10.1080/03623319.2021.1913041

¹⁰⁴ Bump (2014) Are women more likely to say 'I don't know' to poll questions? It appears so, https://www.washingtonpost.com/news/the-fix/wp/2014/05/16/are-women-more-likely-to-say-i-dont-know-to-poll-questions-it-appears-so/

State

Across all states, the belief that Australia is experiencing the impacts of climate 'a lot' has increased since 2021 (the greatest change being a seven percentage point increase to 48% in Tasmania). Concern about energy shortages and blackouts has also increased across all states (up to an eight percentage point increase to 75% in Queensland), and around two-thirds (65%) of respondents from every state believe state governments should take a leading role in action on climate change.

Compared to last year, respondents from NSW and Queensland are more concerned about climate change resulting in higher food prices and increased home insurance premiums (up three percentage points to 75% in NSW and up 5 percentage points to 72% in Queensland), an attitude that is likely influenced by their recent experience of flood events.

NSW residents are more likely to think that coal-fired power generation is unreliable compared to last year (56% in 2022, 51% in 2021) and are more likely to believe that coal is to blame for the country's increasing electricity prices (33% in 2022, 24% in 2021), a view likely influenced by the 2022 energy crisis. Support among Queenslanders for a moratorium on new coal mines has increased since last year (55% in 2022, 50% in 2021).

Respondents from Tasmania hold the strongest belief that Australia should be an international leader on climate action (73% compared to an average of 67% across all states), are most supportive of phasing out coal (87% compared to 79% nationally) and show the strongest support for a windfall profits tax on fossil fuel companies (70% compared to 61% nationally).

Western Australian respondents are most likely to believe fossil fuel producers should pay for preparing for, adapting to, and responding to climate impacts (51%, compared to 48% nationally), and show the highest level of support for government subsidies to reduce the purchase cost of electric vehicles (83% compared to 75% nationally).

In South Australia, there is majority support (71%) for Australia hosting a United Nations Conference of the Parties (COP). Adelaide is a potential host city for the conference, with bipartisan support from both the South Australian Premier and Opposition leader to host the COP in South Australia.¹⁰⁵

Victorians are more supportive of a fossil fuel levy compared to last year (64% in 2022, 61% in 2021), and show the highest level of support for the Environment Minister to consider climate impacts in environmental approvals of fossil fuel projects (83% compared to 80% nationally).

Urban and regional

Both regional and urban respondents express very high concern about climate impacts like droughts and flooding affecting crop production and food supply (80% of regional respondents, and 86% of urban respondents). Both agree that tackling climate change will create opportunities for regional jobs and investment, however agreement is higher among urban respondents (71% of urban respondents agree, compared to 61% of regional respondents). A similar proportion of regional residents and urban residents think coal-fired power stations should be phased out (78% of regional respondents, compared to 80% of urban respondents) and a majority from both cohorts believe that Australian governments should plan to phase out coal mining and transition to other industries (68% of regional Australians, and 77% of urban Australians). Both regional and urban Australians are united in their lack of support for fossil fuel subsidies, with just one-third (32%) of each cohort supporting public funding of infrastructure to subsidise the expansion of fossil fuel industries.

Culturally and linguistically diverse

Respondents who identify as culturally and linguistically diverse (CALD) are generally more concerned about climate change, more supportive of climate action and more likely to trust the science on climate change (77% for CALD, 66% for non-CALD). They are more concerned about climate impacts on health such as illnesses caused by water scarcity or quality and mosquitoborne illnesses (48% of CALD respondents are 'very concerned', compared with 38% of non-CALD respondents), and are more likely to blame rising electricity prices on climate impacts (41% of CALD, 33% of non-CALD). More so than non-CALD respondents, they believe Australian governments should plan to phase out coal mining and transition to other industries (78% for CALD, 72% for non-CALD), and follow the IEA pathway to put a stop to new coal, gas and oil projects (65% for CALD, 53% for non-CALD). CALD respondents are more inclined to think federal and state governments should lead on climate, including helping vulnerable peoples and developing countries adapt to climate change (67% for CALD, 54% for non-CALD).

¹⁰⁵ Richards (2022) Speirs pushes for Adelaide COP conference, https://indaily.com.au/news/2022/06/14/speirs-pushes-for-adelaide-cop-conference/

Conclusion

Climate of the Nation 2022 shows that policies to reduce greenhouse gas emissions in Australia are popular – from requiring federal consideration of the climate risks of high emitting projects, to phasing out fossil fuel power stations, exports and subsides. The 2022 federal election marked a turning point for climate change in Australia. An unprecedented number of Australians voted for parties and candidates running on strong platforms of climate action. One of the first major moves of the new government was to enshrine Australia's 2030 and 2050 climate targets in legislation, providing certainty to industry and investors. However, Australia's new emissions reduction target is still inconsistent with global efforts to limit warming to 1.5°C. Unequivocally, the world must cut global greenhouse gas emissions quickly and steeply.

Australia's transition away from fossil fuel use – in industry, homes and transport – has been slow and must now be prioritised and accelerated. The massive opportunities that this transition brings are recognised by many Australians. Most respondents agree that tackling climate change will create opportunities, jobs, and investment in regional Australia. They support a transition away from coal mining and believe it should be planned by governments, and they support policies including a Manufacturing Industry Commission and a long-term vocational training strategy to help reap the benefits of the transition to electric transport.

Climate of the Nation 2022 results suggest that many Australians are dissatisfied with the historically poor management of the nation's natural resources. Not only have Australia's fossil fuel resources been exploited at the expense of the local environment and global climate, but it is mostly foreign-owned companies - not the Australian public - that have benefited. This is reflected in the results: Australians want the fossil fuel industry to start paying their fair share - be it their fair share of tax or of disaster recovery. Most Australians support a windfall profits tax on the oil and gas industry and support a levy that would see fossil fuel exporters fronting some of the costs of the climate damage they contribute to. Most respondents do not believe that taxpayers should have to pay the cost of climate inaction. They oppose public money being spent to expand fossil fuel production and consumption and would prefer to see this money spent on healthcare, cost of living support and climate action.

Results also reveal that false solutions to climate change need to be challenged. While carbon offsets, carbon capture and storage, and hydrogen are being promoted by the Australian Government and industry as solutions to reduce emissions, Australians have low levels of awareness and understanding about these technologies and want governments to assess the integrity of net zero claims and targets made by the private sector. Ultimately, real reductions in emissions are required to address climate change.

Finally, Climate of the Nation 2022 shows that support for climate action often transcends political lines. Historically, much focus has been given to the differences in opinion on climate policy between political affiliations, often obscuring the vast number of climate policies that Australians agree on. Many of the policies polled in Climate of the Nation 2022 have majority support from Australians aligned with both major parties, from a levy on fossil fuel exports, to phasing out coal mining and introducing a national transport decarbonisation strategy.

Climate of the Nation 2022 shows that most respondents want Australia be leader on the world stage when it comes to climate action. One opportunity to do this is for Australia to host a UN Conference of the Parties (COP) to help reset Australia's global climate reputation and broker the next stage of international climate action. Climate of the Nation results show that most Australians support this.



> Climate & Energy.