




5 Steps to Net Zero

**How Australia can accelerate
our path to net zero and
prosper in the new economy.**

**Catch the wave
of opportunity**



Foreword from Zali Steggall, Independent MP for Warringah

The 2019-20 'Black-Summer' bushfires showed that climate change is a threat to Australia's safety and prosperity. Thousands of people were displaced, homes were lost, and nature was devastated. The cost of the fires was in the tens of billions.¹

And the recent Intergovernmental Panel on Climate Change (IPCC) report has instilled a further sense of urgency, forecasting that we are mere decades away from crossing the 1.5°C of warming threshold where Black-Summer-type events become more commonplace.² Most Australians are now rightly demanding more action from the Federal Government.³

To give us a chance to avert disaster, the IPCC has recommended that global emissions reach 'Net Zero' by 2050.⁴ As a result, countries around the world from the United Kingdom to Mexico are taking up the challenge.⁵ Two-thirds of the global economy is now covered by Net Zero targets.⁶

Catch the wave of opportunity

The economic case is compelling. Australia can catch a new wave of opportunity by embracing the transition. Deloitte Access Economics forecasts that we could add over 250,000 jobs and \$680 billion to the Australian economy by pursuing policies that get us to Net Zero.⁷

So how do we get there?

The '5 Steps to Net Zero' would put Australia on an immediate path to Net Zero, targeting a 60% reduction on emissions by 2030, and unlock all the benefits that come with that effort. Policies are built on evidence-based plans in consultation with experts. The emissions reduction and technology deployment estimates provided align with scenarios modelled by ClimateWorks in their 'Decarbonisation Futures' report.⁸

These policies are not exhaustive. More will need to be done in sectors like construction, heavy transport and aviation to reach proposed targets.

All policies would be funded through phasing out fossil fuel subsidies⁹ and ensuring all fossil fuel companies pay a reasonable rate of royalty.



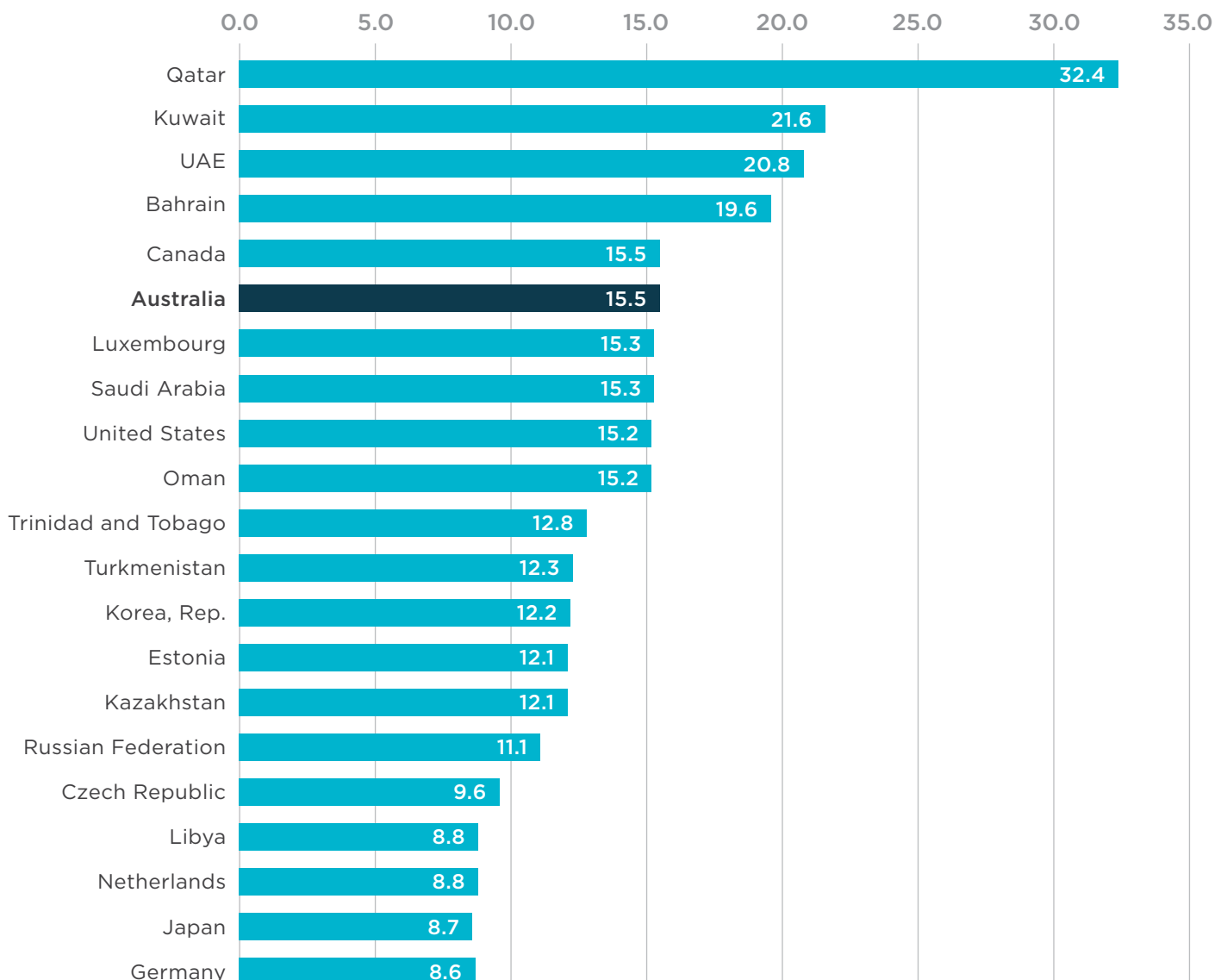
Zali Steggall, OAM, MP



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Deloitte Access Economics

The World's Highest CO² Polluters per capita





STEP 1

Provide a climate change framework for Australia to get to Net Zero

Pass the Climate Change Bills, which include strong legislated targets, emissions budgets, sector-specific planning and broad consultation.

Australia currently lacks a legislative framework to direct climate action. This means policies are often unco-ordinated, lack accountability and are not based on the best evidence possible.

In November 2020, Zali introduced the 'Climate Change Bills' to Parliament to provide a climate change framework for Australia. They lock Net Zero by 2050 into law as well as an interim goal of 60% reduction on 2005 levels by 2030.

The Bills are also based on best practice and similar framework climate change legislation in both New Zealand and the United Kingdom. Since passing their Climate Change Act in 2008, the United Kingdom has reduced emissions by 29%.¹⁰



Why is climate legislation essential?

When these goals are enacted in law, every Australian can be confident that climate change is always on the agenda. And importantly, the Bills provide a legislated structure to reach climate targets, including requiring emissions budgets and multi-sectoral emissions reductions plans.

The Climate Change Bills enjoy broad support in the community and were backed by almost 100,000 signatories, 110 companies and peak bodies and received thousands of supportive submissions from organisations and individuals.

In their submission, the Business Council of Australia found, “The policy framework in the legislation provides an architecture which will be critical to mapping out a planned and predictable approach to emissions reduction across the economy as we work towards the net-zero target in 2050.”¹¹

✓ Pass the Bills.

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Business Council of Australia

An aerial photograph showing rows of solar panels installed in a field, with the panels arranged in a grid pattern and separated by grassy paths.

STEP 2

Transform Energy

Commit to an orderly transition to 80% renewable energy by 2030, with no new coal or gas developments, and increase energy efficiency in the building sector.

Australia is in a once-in-a-century energy transition. Cheap, abundant renewable energy in the form of solar and wind is displacing ageing coal-fired power plants as they retire.¹² Roughly 30% of generation capacity is now renewable and that is projected to reach 69% by 2030 under current policy settings.¹³

An economic opportunity awaits us

This influx of renewables has provided a profound opportunity to drive emissions reductions, lower the cost of power for households¹⁴ and support new jobs.

The energy sector is also the key to decarbonising industry, transport sectors and buildings. By powering electric arc furnaces in steel plants, battery electric vehicles and our homes on renewable energy we can get to Net Zero in those sectors too.



The energy sector is key to reaching our target

The most important sector to decarbonise is the energy sector – and quickly. Australia needs to be powered by 80% renewable energy by no later than 2030. This is eminently possible. South Australia went from no renewable supply to 60% in 14 years to 2020.¹⁵

This rapid deployment of renewables also does not mean an expanded role for polluting fossil gas as under the government's 'Gas-fired Recovery,' or support for legacy coal or gas generators with payments, as expected under the Federal Government's proposed 'Coal-Keeper' capacity market. The transition would instead be underpinned by zero-carbon energy sources and infrastructure like solar, wind, batteries, transmission, and pumped hydro.

The transition to 80% renewables is currently being held back by policy uncertainty, unhelpful interventions by the Federal Government and bottlenecks with the transmission (poles and wires) that transports electricity from place to place.¹⁶

Proposed Policies

To get to 80% renewables by 2030, Australia will require smart energy policies.

- ✓ Stop federal subsidies for coal or gas-fired generation, no 'Coal-Keeper' or 'Gas-Fired Recovery'
- ✓ Close coal-fired power plants in an orderly fashion to clean up the grid
- ✓ Support Renewable Energy Zones with federal finance to roll out renewables at scale
- ✓ Introduce a 'Future Transmission Fund' to support deployment of transmission infrastructure
- ✓ Support community energy and storage projects and ownership models to allow the community to participate in the transition
- ✓ Reform the National Building Standards by introducing requirements to improve energy efficiency and reduce emissions intensity of buildings in line with Net Zero by 2050



STEP 3

Clean Up Transport

Support a minimum 76% target of new vehicle sales to be electric by 2030 through tax incentives, investment in charging networks, and improved emissions and fuel standards.

Transport accounts for 17.6% of total emissions and continues to be one of the leading sources of greenhouse gas emissions for Australia. As with energy, transport is undergoing a significant transformation as passenger and freight vehicles replace fossil-fuel-based engines with electric ones or switch to alternative fuels like hydrogen. Unfortunately, the pace of change is not fast enough to get to Net Zero by 2050.

Our uptake of e-vehicles needs to accelerate

Emissions from transport were growing before the pandemic; a trend that's likely to continue as restrictions ease.¹⁷ Cars make up most of them. And with no significant federal policy to deal with car emissions, we have some of the worst standards in the developed world.

Australia is also one of the slowest countries in the OECD when it comes to the adoption of battery electric vehicles. Electric vehicles currently account for less than 1% of new car sales. By contrast, in Norway 75% of new car sales were electric in 2020. In Australia, under current policy settings, 30% of new vehicles will be electric by 2030.¹⁸



We need policy intervention to succeed

This is unfortunate because electric vehicles can provide a massive source of electricity storage and supply if well managed. Their batteries can soak up solar generation during the day and return it to the household, business or grid during the evening. They also reduce instances of respiratory illnesses and death from tailpipe pollution.

If Australia is to get to Net Zero by 2050, we need electric vehicles to account for 76% of new vehicles and 28% of the Australian government fleet by 2030 at the minimum.¹⁹ Given the deflation in the cost of batteries and significant decisions made by car manufacturers and other jurisdictions to phase out internal combustion engine models, Australia could aim for all new vehicles to be electric by 2035. But to get there Australia needs to take the foot off the brake and accelerate.

Although electric vehicles are becoming more available they're still too expensive and charging infrastructure remains scarce. It will take policy support to make them affordable and accessible for everyday Australians.

Proposed Policies

To clean up transport we need smart policies to drive the uptake of EVs.

- ✓ Implement an 'Australian Vehicle Carbon Dioxide Standard' requiring manufacturers to import vehicles with lower emissions over time reaching net zero by 2035
- ✓ Offer federal tax rebates for the purchase of an electric vehicle to improve affordability
- ✓ Build a Government-funded network of fast-charging stations and provide subsidies for smart chargers in homes and businesses to reduce range anxiety
- ✓ Purchase only electric vehicles for the government fleet by 2023 to expand the second-hand market
- ✓ Reform fringe benefits tax and luxury car tax to make electric vehicles cheaper



STEP 4

Modernise Industry

Halve industry emissions through incentives for the production of green steel, green aluminium and green hydrogen and establish a transition fund to support communities.

From making plastic bottles and toothpaste to the steel that supports buildings and the iron ore we export, industry is at the very centre of our economy. The energy and heat needed to manufacture goods and extract resources have been provided by fossil fuels since the industrial revolution. Consequently, industry accounts for nearly 50% of Australia's total emissions.²⁰ Unfortunately, those emissions are on an upward trajectory and decarbonising will be difficult without support.

At the same time industry is exposed by changing trade practices like carbon border tariffs in the global marketplace and countries making commitments to shift away from imported fossil fuels.²¹ With these changes, mining and manufacturing communities will be left exposed and vulnerable as key markets move. Getting to Net Zero is now an imperative for our economic wellbeing.²²

Making Australia a clean industrial powerhouse

To get to Net Zero, Australia will need to reduce the emissions of industry by 49% by 2030.²³



This will be a considerable undertaking but importantly will also spur innovation and growth, protect legacy jobs, support new clean jobs and make Australia a clean industrial powerhouse that exports products like green steel and aluminium and hydrogen to the rest of the world.

Adding \$75bn and 130,000 direct jobs to the economy

McKinsey projects that opportunities like exporting hydrogen, green steel and ammonia to overseas markets could add \$75 billion to the Australian economy each year to 2035 as well as an additional 130,000 direct jobs²⁴ — many of them in regional communities that are exposed by the transition from fossil fuels.

Because industry encompasses many different activities, getting to Net Zero will require a range of policies like implementing circular economy principles, research and development funding, addressing fugitive emissions and rolling out mature technologies.

Proposed Policies

To transform our industrial base we will need to do the following

- ✓ Establish an 'Electrifying Industry Fund' to help industry shift to renewable electricity and feedstock
- ✓ Expand and tighten the 'Safeguard Mechanism' to reduce emissions in the highest polluting sector in the country
- ✓ Introduce a 'Fair Employment Transition Agency' to co-ordinate and plan for regional diversification and an employment transition in communities affected by decarbonisation
- ✓ Establish a 'Fair Employment Transition Fund' to support communities through the transition
- ✓ Stop new coal, oil or gas developments

STEP 5

Regenerate Australia and future-proof agriculture



Roll out 8 mega hectares of tree planting and soil carbon sequestration and invest in low-carbon agricultural practices and innovative technologies.

The Australian landscape has rich potential to draw down carbon. Getting to Net Zero will require at least 8 mega-hectares of carbon forestry plantations by 2030.²⁵ We also need to seed the ocean with kelp forests or buttress our coasts with kilometres of mangroves.

Delivering \$114bn p.a. to farmers and landowners

The advantages of such sequestration are considerable. With emerging domestic and international capital markets for carbon credits and offsets, the CSIRO estimates that returns to farmers and landowners could be as high as \$114 billion per annum by 2060.²⁶ Reforestation compatible with natural habitats, including mixed natives, can also help preserve biodiversity in the face of significant flora and fauna loss.²⁷

Deeply interconnected with carbon sequestration, agriculture accounts for 14.1% of total emissions.²⁸ Although emissions have decreased over the last few quarters due to drought and floods, they are expected to rebound as conditions continue to improve.

Australia must act. Increasing emissions will leave our farmers exposed. With recent



announcements like the European ‘Carbon Border Adjustment Mechanism’ and threats from other countries following suit, agriculture may be penalised for high-emissions-intensity products. Compounding this will be the acceleration of climate impacts as the Earth warms. The subsequent loss of farm productivity and profits could exceed \$5 billion annually according to Ernst and Young.²⁹

Expanding regenerative, sustainable agriculture

With the right solutions Australia can reduce agriculture emissions by at least 40% by 2030.³⁰ This has the potential to diversify income streams, create new sustainable jobs, and boost farm productivity and resilience.

If Australia is to get to Net Zero, we will need to roll out sustainable and regenerative agriculture practices, electrified and energy-efficient equipment, fertiliser management, meat substitutes including plant-based, vaccinations, selective breeding, and feed supplements and additives. Many of the solutions are still emerging so much more funding will have to be directed to research and development to accelerate commercialisation.

Proposed Policies

To improve our land, we will need the following policies

- ✓ Establish a ‘Commonwealth Sequestration Scheme’ offering concessional loans and grants to landowners to support the roll out of native species plantings
- ✓ Introduce a ‘Commonwealth Agriculture Innovation Fund’ to accelerate research and development and deployment of agriculture technologies and methodologies
- ✓ Expand agricultural methodologies for the Emissions Reduction Fund to further support low emissions agricultural practices and technologies
- ✓ Lower regulatory and educational barriers for landowners to improve participation in carbon sequestration
- ✓ Ban native forest logging to safeguard our carbon sinks

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