

POWERING PAST COAL AND GAS

The Greens' climate and energy plan to fight the climate crisis, grow jobs and repower the economy with net-zero emissions by 2035.



“Climate change is a threat to well-being and planetary health. Any further delay...will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all.”¹

– 2022 Intergovernmental Panel on Climate Change Sixth Assessment Report
compiled by the entire world’s climate scientists

“The Greens’ plan for renewables by 2030 sounds hard, but it stacks up”²

– Professor Andrew Blakers, Director, Centre for Sustainable Energy Systems (CSES),
Australian National University

“Climate change is a diplomacy issue, a security issue, a trade issue. And in the years to come, the only great powers will be green powers.”³

– Conservative U.K Prime Minister, Boris Johnson, September 2021

“If we electrify the two cars in the average household, we put oversized solar on their rooftops, we electrify their water heaters, electrify the kitchen and electrify any space heating in that household by 2030, we’ll be saving them \$5,000–\$6,000 per year.”⁴

– Saul Griffith, founder of Rewiring Australia

“I want you to act as you would in a crisis. I want you to act as if our house is on fire. Because it is.”⁵

– Greta Thunberg, Swedish school student who sparked a global wave of student climate strikes

¹<https://www.ipcc.ch/report/ar6/wg1/#SPM>

² <https://theconversation.com/the-greens-plan-for-90-renewables-by-2030-sounds-hard-but-it-stacks-up-51115>

³[Boris Johnson says future great powers will only be green powers \(smh.com.au\)](https://www.smh.com.au/news/boris-johnson-says-future-great-powers-will-only-be-green-powers-20210924)

⁴<https://www.abc.net.au/news/2021-10-04/rewiring-australian-households-could-save-up-to-6000-per-year/100512028>

⁵<https://womenintheworld.com/2019/01/29/i-want-you-to-panic-climate-activist-greta-thunberg-16-lays-it-on-the-line-for-world-leaders/>

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WE ARE IN A CLIMATE EMERGENCY



Introduction from Greens Leader Adam Bandt

There can be no climate justice without First Nations justice.

We can't heal the land without the contributions and leadership of the people whose culture has sustained it for more than 60,000 years. As custodians of this land, First Nations people understand that the health of the community is only as strong as the health of our environment. When we don't show genuine care for the Country that nurtures us, we all suffer.

In the last 34 years, since 1988, humans have released more heat trapping carbon and methane than in all of the 60,000 years before.⁶ We have to reverse and exceed that 34 year legacy within the next 28 years, with the heavy lifting in this critical decade.

It is time to confront the climate crisis. We've just got to get it done.

What this plan shows is that acting on the climate emergency doesn't require any personal sacrifice or change in our standard of living. In fact if we do it right, our energy bills will come down and hundreds of thousands of jobs will be created.

Benefits will happen immediately, but the legacy of it will last for generations.

Instead, Australia is experiencing a climate crisis from floods in Lismore and Ballina to fires in Mallacoota and Cobargo; and it is caused by mining and burning coal and gas. Both Liberals and Labor back more coal and gas. They take millions in donations from coal and gas billionaires and big corporations.

Net zero by 2050 is an empty slogan for 'someone else's problem'. We don't have another three years to waste.

We need to kick the Morrison Government out. But a Labor government on its own won't do what is necessary to stop the mining and burning of coal and gas that is driving the climate emergency. Both parties are captured by the donations and influence of coal, oil and gas companies with \$11.9 million in political donations received since 2012.⁷

Labor's climate policy position is the worst it has been in a decade and not by accident. Labor won't act meaningfully on climate without the Greens to push them.

⁶ <https://billmckibben.substack.com/p/glasgow-where-climate-wreckage-began>

⁷ Democracy for Sale reports that the Liberals received \$4.7m from coal and gas companies from 2012 to 2018, and that Labor has received \$3.5m <http://democracyforsale.net>

And creating a climate-focussed Parliament with Greens in the balance of power is closer than you think.

If just a few hundred people changed their vote from the last election, the Greens would be in the balance of power and we will push the next government to go further and faster on the climate crisis, stopping new coal and gas mines and creating tens of thousands of jobs right across the country as we establish the industries of the future and become a clean energy exporting powerhouse.

Powering Past Coal and Gas is our fully costed, sector-by-sector plan of how we create these jobs, transform our old industries and create new ones. This is what can be achieved if Australian voters do what Germany, Scotland, New Zealand and Austrian voters have recently done and put the Greens into a power-sharing Parliament.

Australia is the sunniest continent on earth with amazing wind resources and smart, adaptive and innovative minds. These resources and huge opportunities are being wasted as each year passes.

Imagine what could be achieved if Australia's energy is effectively free. Manufacturing could return to our shores again and we could make green products here instead of exporting the raw materials overseas. Transporting ourselves, our food and our parcels with clean electricity instead of imported oil would reduce the cost of everything and enhance our security.

This future can happen if we rapidly transition to a clean economy powered by renewable energy and export the rest of it to the world.

POWERING PAST COAL AND GAS

Executive Summary

The climate and environmental crisis threatens to overwhelm Australia, the world's economy and society. We face civilisational collapse unless we keep global warming below 1.5 degrees.

Australia has an international, economic and environmental imperative to recognise the climate emergency and to act.

While we need profound action, such actions are largely “no regrets” policies that will repower our economy and offer prosperity and well-being to our people and nation.

The general outline of what is required is quite simple. Shift electricity generation to renewables and storage. Increase electricity production to allow the electrification of all households, businesses, transport and industry. Soak up the remaining emissions and move to negative emissions by protecting our forests and landscapes and reform our agriculture to drawdown carbon from the atmosphere, so we can start to return to a safe climate.

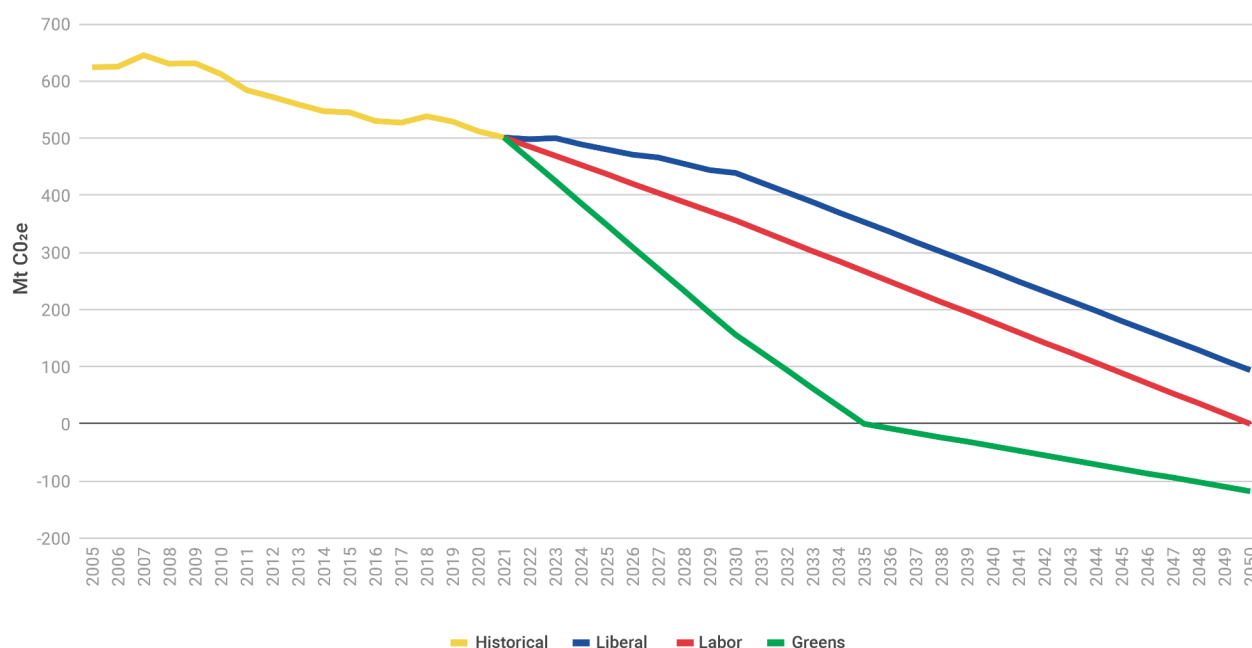
Critical to this task is not only the removal of fossil fuel production from our domestic economy, but also to phase out our exports of coal and gas. This will be a significant but manageable structural adjustment to our economy and some regional communities. That is why support for affected workers and their communities to shift to employment in other mining sectors or new industries is vital.

The Greens are the only party putting forward a set of policies and a comprehensive climate and energy plan that matches the international, economic, scientific and environmental imperatives.

Liberal and Labor both have inadequate climate reduction targets that are not science based and their explicit policy is to keep the mining, burning and export of coal and gas going. Their policies will not protect Australians or our environment and will not enable us to reap the economic rewards of comprehensive action.

But this plan does. Not only will it create 805,000 jobs, but it will improve the budget bottom line by \$51.9 billion over the decade as we remove handouts for coal, oil and gas industries and make them pay for the damage they are causing.

HOW THE PARTIES COMPARE



Source ⁸

The Greens climate targets are for a 75% reduction on 2005 levels by 2030 and for net-zero emissions by 2035. We then go further and aim to be a net-negative emissions economy with over 100 million tonnes of net drawdown every year by 2050.

Critical to our plan is the phase out of coal and gas, not only from our domestic economy, but also for export. This is why our goal of reaching 700% renewables is critical as it will allow us to become a renewable energy superpower developing new export and manufacturing industries such as green hydrogen, direct transmission of renewable energy and the production of green metals.

The Greens' Powering Past Coal and Gas climate and energy plan outlined in this document will enable these goals and targets to be met.

The plan will also mean 805,000 new jobs, with 162,000 direct jobs and 643,000 indirect jobs created across the country, particularly in areas most affected by the transformation that will be needed to reach net-zero in the next 13 years, like heavy industrial centres and deepwater ports.

Unlike Liberal and Labor's plan, the Greens plan is realistic about what needs to be done. It doesn't rely on magical unicorns or technology yet to be invented or unrealistic offsets so polluters can keep on polluting.

⁸ 2030 targets are taken from Party commitments of 26-28%/43%/75% below 2005 levels - for the Greens a linear trajectory was assumed from 2030 to 2035 net-zero, and then to a net drawdown target of 100 Mt per annum by 2050, for the Liberals a linear trajectory was assumed between a 2030 target and 2050 target of 94 Mt CO₂e (as per the modelling for the Government's Long Term Emissions Reduction Plan), for Labor a linear trajectory was assumed between 2030 and a 2050 net-zero target.

Key Elements

- The expansion of Commonwealth-owned Snowy Hydro to become Clean Energy Australia and retasking to build 25 gigawatts of renewable energy and storage in the next eight years. Plans for the proposed Kurri Kurri gas plant will be scrapped.
- A \$25 Billion FutureGrid fund to enable the rewiring of Australia, upgrading and building new publicly owned transmission lines and interconnectors linking up renewable energy zones in line with the market operator's Integrated System Plan.
- A job-for-job guarantee for coal workers affected by the transition to ensure they get good jobs at the same pay, by enabling their new employers to receive a wage subsidy of up to half the workers' former wage for up to 10 years. Older workers will receive the payment until they reach retirement age. The transition will be overseen by a national commission and five regional development authorities to drive new jobs and investment in coal communities.
- A moratorium on new coal, oil and gas projects in line with International Energy Agency requirements and the introduction of a clear schedule for coal plant closures and a levy on coal mining to fund the transition as coal exports are phased out by 2030 (2040 for metallurgical coal).
- A \$15 billion "Made in Australia" Bank and manufacturing fund to support the transformation of existing industries such as steel, aluminium and other minerals and metals processing and our manufacturing industries to participate in the global zero-carbon economy.
- Ending the \$98 billion of handouts to corporations that encourage them to burn fossil fuels and redirecting that money into creating new jobs and industries.
- Subsidies to households and businesses to electrify heating, cooking and to install batteries.
- A doubling of energy productivity by 2030 with a national energy efficiency scheme and an economy-wide price on carbon.
- A \$50 a tonne price floor for farmers engaged in carbon farming to help them transform their businesses through guaranteed returns for their carbon credits (ACCUs).
- Support for the development of a green hydrogen and renewable export industries.

THE CLIMATE CRISIS AND AUSTRALIA

The effects on Australia of going above 1.5 degrees

Every generation has prided itself on handing down a better quality of life for the next one coming through. But right now we are on track for this intergenerational pact coming undone for the first time in human history. Unless we act decisively.

The climate and environmental crisis threatens to overwhelm Australia and the global economy. We face civilisational collapse unless we keep global warming below 1.5 degrees.

Australia has an international, economic, scientific and environmental imperative to recognise the climate emergency and to act.

According to the world's scientists, if the world doesn't at least halve global pollution by 2030, our climatic system is at serious risk of tipping over into spiraling chain reactions. Once set off, humans will no longer be able to control the climate breakdown.

No area of our lives would be untouched by this climate deterioration; from our food supply sending prices sky high, our hospital services being overrun, construction workers exposed to elevated temperatures, and infrastructure damage from sewerage systems to flooding cities, to the loss of our iconic sand beaches.

But climate damage is not some far off, distant threat, we are already experiencing a shifting climate with 100-year bushfires and floods every few years. Government agency Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) has calculated that each Australian farmer has already lost \$29,200 in reduced income from climate change.⁹

While we need profound action, such actions are largely "no regrets" policies that will repower our economy and offer prosperity and well-being to our people and nation.

Ending Coal, Oil and Gas: The International Energy Agency

The biggest cause of global heating is the mining, transporting and burning of fossil fuels - coal, oil and gas. The phase out of fossil fuels is the number one task to halt our planet cooking.

According to the historically conservative International Energy Agency (IEA), not one new coal or gas project can proceed if we are to stay below 1.5 degrees. Indeed, IEA has said that to meet even the net zero by 2050 commitment, not a single piece of new fossil fuel infrastructure can be built.

⁹<https://www.abc.net.au/news/rural/2021-07-29/abares-climate-change-costs-30k-per-farm/100331680#:~:text=Farmers%20have%20been%20losing%2C%20on,the%20challenges%20of%20climate%20change>

Despite this, both Liberal and Labor's climate and energy plans envisage more coal, gas and oil projects. Both major parties claim their policies will keep coal power stations open longer. They pledge that more renewables won't lead to less coal.

The government's Chief Economist has identified 114 new coal and gas projects in the investment pipeline,¹⁰ all of them supported by Labor or Liberal governments.

- In the Northern Territory, the Labor government backed by the Federal Liberal government and the Federal Labor party is opening up the vast Beetaloo Basin to gas and oil drilling.
- In Western Australia, the Labor government has given the go ahead to Woodside's giant Scarborough gas project.
- In QLD, the Labor government has approved four new coal mines in the last year alone and is allowing fracking for the first time in some of the world's last free-flowing desert river systems.
- In Victoria, the Labor government is allowing oil and gas exploration next to the world famous Twelve Apostles.

After Glasgow: Global Outcomes and Obligations

The Paris Agreement and the recent Glasgow Pact both signed by Australia set a clear goal of keeping global warming to 1.5 degrees and the halving of global emissions by 2030.

Australia is required to set out its "Nationally Determined Contribution" to this goal, including targets for emission reductions by 2030 with the expectation that Australia will update its target later this year with an increased ambition.

Critical to both agreements is the recognition that countries have "common but differentiated responsibilities" and "respective capacities". In other words, big historical and current polluters, such as Australia, have greater responsibility to take action to reduce emissions, and as a rich country we also have greater capacity to act.

In a nutshell, Australia's emission targets should be much greater than the global average required to limit global warming, not less.

This is why Australia has a legal, economic and moral obligation to set much higher targets than the government's reduction target of 26% below 2005 levels and Labor's (updated and lowered) target of 43% below 2005 levels.

¹⁰ <https://www.industry.gov.au/data-and-publications/resources-and-energy-major-projects-2021>

Australia's independent Climate Targets Panel, using the same methodology as the most recent target assessment by the government's Climate Change Authority, has determined that Australia's 2030 reduction target must be at least 74% below 2005 levels.¹¹

As the world's third largest supplier of fossil fuels behind Saudi Arabia and Russia, we have an obligation that goes beyond this target: to stop exporting our dangerous products to the world and phase out the mining and export of coal and gas.

You only have a plan for the climate crisis if you have a plan for coal and gas.

The Greens Plan for Net-Zero Emissions by 2035 and beyond

What is required to keep Australians safe is quite simple. Shift electricity generation to renewables and storage. Increase electricity production to allow the direct and indirect electrification of all energy used by households, businesses, transport and industry. Soak up the remaining emissions and move to negative emissions by protecting our forests and landscapes, and reforming our agriculture to drawdown carbon from the atmosphere.

This will be a significant but manageable structural adjustment to our economy and some regional communities. That is why support for affected workers and their communities to shift to employment in other mining sectors or new industries is vital. But it is also a huge economic opportunity for Australia's land managers.

The Greens are the only party putting forward a set of policies and a comprehensive climate and energy plan that matches the international, economic, scientific and environmental imperatives.

Liberal and Labor both have inadequate climate reduction targets that are not science based and their explicit policy is to keep the mining, burning and export of coal and gas going. Their policies will not protect Australians or our environment and will not enable us to reap the economic rewards of comprehensive action.

The Greens climate targets are for a 75% reduction on 2005 levels by 2030 and for net-zero emissions by 2035. We then go further and aim to be a net-negative emissions economy with over 100 million tonnes of carbon drawdown every year by 2050.

Critical to our plan is the phase out of coal and gas, not only from our domestic economy, but also for export. This is why our goal of reaching 700% renewables is so critical as it will allow us to become a renewable energy superpower by a seven fold increase in electricity generation to allow us to develop new export and manufacturing industries such as green hydrogen, direct transmission of renewable energy and the production of green metals.

¹¹ <https://www.climatecollege.unimelb.edu.au/australias-paris-agreement-pathways>

This goal has begun to be outlined in the Hydrogen Superpower Scenario of the latest Integrated System Plan developed by the Australian Energy Market Operator.¹²

With legislated targets and a reformed Climate Change Authority resourced to develop sectoral emission reduction plans, significant cuts will be able to be made over the next decade reaching net-zero by 2035 and then continue to reduce gross emissions to deliver net drawdown out to 2050 and beyond.

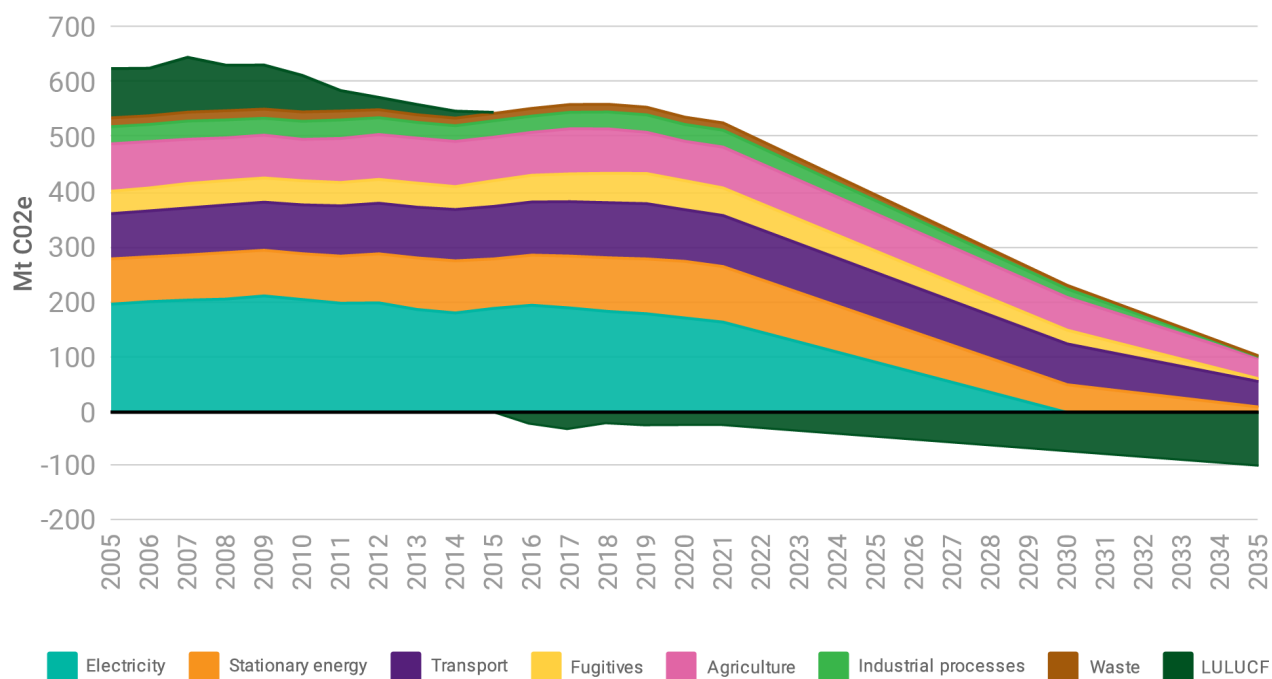
The Greens Powering Past Coal and Gas climate and energy plan outlined in this document will enable these goals and targets to be met.

¹² Hydrogen Superpower Scenario, 2022 Draft Integrated System Plan:
<https://aemo.com.au/-/media/files/major-publications/isp/2022/draft-2022-integrated-system-plan.pdf>

Proposed sectoral emission reductions

Sector	2021 (Mt CO ₂ e)	% reduction by 2030	2030 (Mt CO ₂ e)	% reduction by 2035	2035 (Mt CO ₂ e)
Electricity	164	-100%	0	-100%	0
Stationary energy	101	-50%	50	-90%	10
Transport	93	-20%	74	-50%	46
Fugitives	50	-50%	25	-90%	5
Agriculture	74	-20%	59	-50%	37
Industrial processes	31	-50%	15	-90%	3
Waste	13	-50%	7	-90%	1
LULUCF	-24	x3	-75	X4	-103
Total	501	75% below 2005	156	100% below 2005	0

Total Emissions



SECTION ONE: CLIMATE LEADERSHIP

Summary:

- Australia needs a coordinated, whole-of-government approach to achieve net zero emissions by 2035.
- Climate policy needs to be freed from the influence of coal and gas corporations. We need to cap donations, establish a national anti-corruption body, and prevent outgoing Ministers from working in the industries they presided over.

The Greens will restore climate leadership to Australia, firstly by legislating climate targets for a 75% reduction on 2005 levels and net-zero by 2035, and set a goal of 100% renewables by 2030 and long-term goal of 700% renewables. We will then establish the machinery of government needed to implement action on these targets and restore integrity to government decision making by removing the influence of the fossil fuel lobby. Finally, the Greens will move Australia from climate laggard and saboteur to climate leader on the international stage using our diplomatic resources to fight for global action.

National Climate Action Taskforce

Responding to the climate crisis requires a whole-of-government plan for Australia to achieve net zero emissions by 2035 and manage carbon drawdown afterwards.

The focus, resources, partnerships and effort to achieve a 75% reduction by 2030 are huge. Just in the way that all of society mobilised to keep us safe in World War II and more recently during the COVID-19 global pandemic, we must bring the same urgency and dedication to stop global heating spiralling out of control.

The Powering Past Coal and Gas plan calls for the establishment of a standing National Climate Action Taskforce to achieve a coherent, whole of government, Australia-wide response over this critical decade.

This National Climate Action Taskforce will be advised by a well resourced Climate Change Authority (CCA), with its current former coal and gas executives removed. They will conduct a national security assessment of the impacts of the climate crisis on Australia's economy and

society, advise the National Climate Action Taskforce on eight net zero plans for each sector of the economy, and develop a negative emission drawdown program post-2035.

Finally, the CCA will be tasked with preparing for the impacts of the climate crisis that we cannot avoid as a result of the warming that has already occurred and is baked into earth's climatic systems.

International Action

The Greens will also support the hosting of a UN Framework Convention on Climate Change Conference of the Parties in Australia and the restoration of the role of Climate Ambassador.

We will ensure Australia becomes a signatory to the Global Methane Pledge and the Fossil Fuel Non-Proliferation Treaty. Australia will also join the Powering Past Coal Alliance and the Beyond Oil and Gas Alliance.

Australia will resource and align our international diplomatic efforts closely with the Alliance of Small Island States who have led the world on commitments to keep global warming below 1.5 degrees as they are the countries which are under immediate existential threat from the climate crisis.

Integrity in government

It is time to remove the influence and power of coal and gas corporations over the Liberal, National and Labor parties. Their stranglehold comes from donations, access through fundraising dinners, private jets carrying Ministers alongside gas CEOs, offering Ministers and their staff executive level jobs after leaving Parliament, while gas lobbyists get appointments to government advisory roles or into the Prime Minister's Office as senior advisers and chief-of-staff.¹³

If either the Coalition or Labor form government on their own, climate policy will continue to be written by coal and gas companies protecting their interests. But in a power-sharing Parliament, the next government will be forced to listen to the Greens and Independents instead. Lobbyists hate power-sharing parliaments because they can't simply secure backroom deals with government Ministers and Parliament ceases to be the government's rubber stamp.

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<https://www.theaustralian.com.au/business/margin-call/former-minerals-council-ceo-brendan-pearson-appointed-to-scott-morrison-s-pmo/news-story/d1007cc1335d053374ca4ed0c749f56a>

The Greens will take the necessary steps to begin cleaning up our political system, including:

- Capping donations at \$1,000 a year, so influence can no longer be bought;
- Introducing a national anti-corruption body to investigate politicians, public servants and third party businessmen who have financially benefited through undue influence;
- For a period of five years, preventing Ministers from leaving Parliament and working for the same industries that they presided over.

SECTION TWO: PHASING OUT COAL AND GAS WHILE LOOKING AFTER COAL COMMUNITIES

Summary:

- Keeping fossil fuels in the ground is the first step to tackling the climate crisis. This means cancelling all exploration and fracking permits, and preventing the renewal or expansion of existing projects.
- We need a planned closure of coal stations so the government can guide how much clean power needs to be built and where. Coal workers will be supported with a job-for-job guarantee that means their wages will be guaranteed for 10 years in new jobs, with their new employer receiving a wage subsidy.
- Ending subsidies for fossil fuels will free up \$98.4 billion over the decade to fund the jobs and industries of the future.

No New Coal, Oil and Gas

In an emergency, the very first action we have to take is to immediately remove whatever is causing the damage. For the climate emergency, that means keeping all untapped coal, oil and gas fields in the ground.

Renewable energy helps replace coal and gas, but renewable energy alone isn't what stops climate change. Keeping fossil fuels in the ground is what will halt the climate crisis. So long as the Coalition and Labor have no plan for coal, oil and gas, they have no plan for climate change.

For oil and gas projects in Commonwealth waters, the government can - without legislation - prevent the issuing of all new exploration permits. Similarly, the Federal Parliament can override all fracking in the Northern Territory and put an end to the Beetaloo gas climate bomb.

For everywhere else, the Federal Government could use their Constitutional powers (either the corporations power or the external affairs power) to override the States to cancel all coal, gas and oil exploration leases and prevent the renewal or expansion of existing projects.

According to the independent Parliamentary Budget Office, the expected lost revenue from preventing all expansion of coal and gas projects is a manageable \$3.8 billion over the decade.

Coal Closure Timeline

In order to keep coal in the ground and ensure that workers have financial security while governments and clean energy companies have clear guidance for investment of how much power needs to be built where, and by when, a staged closure of coal stations is crucial.

A planned coal closure framework will create a jobs boom in renewable energy construction that won't end in a bust, but ensure a steady continuation of employment right around the country for the next two decades.

Based on the coal closure timeline below, a staggering 1.24 billion tonnes of pollution can be avoided. That is the equivalent of two and a half years of annual emissions for the entire country.

In combination with a job-for-job guarantee for coal workers and a funded plan for coal communities to diversify with ongoing financial stability, we can ensure coal workers aren't abandoned to the whims of company boardrooms like they currently are.

The management of the coal closure timeline would be undertaken by the energy market operator, AEMO, who have already charted how Australia can build this future.¹⁴ Below is the timeline of closure that a 1.5 degree climate budget requires.

State	Power Station - Owner	Rated Capacity (MW)	Listed Closure Date / Greens proposed closure date	Years closure brought forward	Commissioned (Age at retirement)	Electricity Production (GJ)	Total Emissions (t CO2-e)	Total Emissions Saved (t CO2-e)	Emission Intensity (t CO2-e/MWh)
NSW	Liddell Power Station Macquarie Generation	2000	2022 / 2022		1973 (49)	26,305,616	7,021,228		0.92
QLD	Callide C Power Plant InterGen/CS Energy	840	Not submitted / 2023		1989 (34)	18,205,965	4,549,575		0.93
VIC	Yallourn W Power Station ^A EnergyAustralia Yallourn Pty Ltd	1450	2028 / 2023	5	1973 (50)	32,048,316	11,066,127	55,330,635	1.31
QLD	Tarong Power Station* Stanwell Corporation Limited	1400	2036 / 2023	13	1984 (39)	43,140,359	10,635,030	138,255,780	0.87
QLD	Millmerran Power Plant InterGen	852	2051 / 2024	27	2002 (22)	22,829,107	5,257,559	141,954,093	0.82
NSW	Vales Point "B" Power Station Delta Electricity	1320	2029 / 2024	5	1978 (46)	24,372,427	6,367,344	31,836,720	0.86
QLD	Gladstone Power Station NRG Gladstone Operating Services (Rio Tinto/NRG Energy)	1680	2035 / 2024	11	1976 (48)	23,114,397	6,269,417	68,963,587	0.93

¹⁴ Hydrogen Superpower Scenario, 2022 Draft Integrated System Plan, page 34:
<https://aemo.com.au/-/media/files/major-publications/isp/2022/draft-2022-integrated-system-plan.pdf>

State	Power Station - Owner	Rated Capacity (MW)	Listed Closure Date / Greens proposed closure date	Years closure brought forward	Commissioned (Age at retirement)	Electricity Production (GJ)	Total Emissions (t CO2-e)	Total Emissions Saved (t CO2-e)	Emission Intensity (t CO2-e/ MWh)
NSW	Eraring Power Station <i>Origin Energy</i>	2880	2025 / 2025	0	1982 (43)	52,235,712	12,713,738		0.86
QLD	Tarong North Power Station* <i>Stanwell Corporation Limited</i>	450	2037 / 2025	12	2002 (23)	*	*	*	0.87
QLD	Callide B Power Station <i>CS Energy Limited</i>	700	2028 / 2026	2	1988 (38)	11,317,007	2,983,083	5,966,166	0.94
NSW	Bayswater Power Station <i>Macquarie Generation</i>	2665	2033 / 2027	6	1982 (45)	51,517,714	12,763,444	76,580,664	0.88
VIC	Loy Yang A Power Station ^ <i>AGL Loy Yang Marketing Pty Ltd</i>	2210	2045 / 2028	17	1984 (44)	59,031,839	19,153,341	325,606,797	1.16
VIC	Loy Yang B Power Station ^ <i>IPM Australia Limited</i>	1160	2047 / 2029	18	1993 (36)	31,724,455	9,701,068	174,619,224	1.13
QLD	Stanwell Power Station <i>Stanwell Corporation Limited</i>	1460	2043 / 2029	14	1993 (36)	29,318,903	6,916,480	96,830,720	0.87
NSW	Mt Piper Power Station <i>EnergyAustralia Pty Ltd</i>	1390	2040 / 2030	10	1993 (37)	29,108,758	7,082,278	70,822,780	0.86
QLD	Kogan Creek Power Station <i>CS Energy Limited</i>	744	2042 / 2030	12	2007 (23)	18,428,566	4,366,178	52,394,136	0.82

AVERAGE AGE - 38

TOTAL 1,239,161,302

WA	Muja C* <i>Synergy</i>	400	- / 2022 and 2024	1, 3	1981	12,914,677	3,260,481		0.92
WA	Muja D* <i>Synergy</i>	454	- / 2025		1985 (40)				
WA	Collie Power Station <i>Synergy / Western Power</i>	340	- / 2026		1999 (27)	3,756,282	956,005		0.91
WA	Bluewaters 1 <i>Kansai Electric & Sumitomo Corporation*</i>	217	- / 2028		2009 (19)	5,808,996	1,216,374		0.91
WA	Bluewaters 2 <i>Kansai Electric & Sumitomo Corporation</i>	217	- / 2030		2009 (21)	6,083,427	1,254,100		0.88
WA	Worsely <i>BHP</i>	216	- / 2030		2012 (18)				

^ Brown coal (all others Black coal)

***Tarong & Tarong North and Muja C & D are reported as single units to the Clean Energy Regulator**

Job-for-Job Guarantee: Looking after coal communities

Late last year Australia's energy market operator said that half of the existing coal fleet will close by 2030, and coal plants are bringing forward their closure dates at a rapid rate, yet there is still no plan for workers and communities.¹⁵

Coal workers know they are being lied to by Liberal and Labor politicians who say coal will stay in the system for decades. They know they are going to get screwed over by coal corporations; they just want a clear pathway that will ensure their financial security and keep their communities in place.

No coal worker should suffer the anxiety and financial insecurity that comes from losing their job suddenly. With a planned transition, we can assure workers that they will continue in gainful employment until retirement, and that their children will have jobs in the region that they love, long after coal mines and coal plants have closed.

We owe coal workers a debt of thanks for powering our country. We don't need to choose between taking urgent climate action and supporting coal communities. We can do both. A job-for-job guarantee program will secure new jobs for coal workers, including in mining and energy, without loss of pay.

A generous financial support package to support coal workers move to new industries was a central component of the successful strategy employed by Germany to phase out their coal industry without a single worker losing their job.¹⁶

The Job-for-Job Guarantee package will provide 50% of a coal worker's wage for a decade, provided as a wage subsidy to employers who provide an equivalent paying job. Workers over 55 will be able to receive the wage subsidy for up to 12 years as they transition to retirement. Workers who cannot find alternative work can receive the subsidy directly.

Local economies will be supported by local Authorities. Members will be drawn from across unions, business, academia, NGOs, First Nations and government to develop local tailored plans to secure their economic transition.

¹⁵ *Step Change Scenario* (voted most likely outcome by those engaged in AEMO's consultations) shows 14GW of the current 23GW of coal fired power will be removed. 2022 Draft Integrated System Plan, page 44: <https://aemo.com.au/-/media/files/major-publications/isp/2022/draft-2022-integrated-system-plan.pdf>

¹⁶ <https://www.abc.net.au/news/2020-02-18/australia-climate-how-germanyis-closing-down-its-coal-industry/11902884>

Commission location
Hunter Valley Authority
LaTrobe Valley Authority
Gladstone Authority
Bowen Basin Authority
Collie and South West WA Authority

These local Authorities will be overseen by a national commission responsible for the administering the \$2.8 billion Diversifying Coal Communities Fund, which will approve and fund the local plans across the nation while also developing industry wide job pooling to work with regional employers to share those remaining jobs, support older workers and hold communities together.

Further financial support for new jobs and new industries will be provided through the Manufacturing “Made in Australia” Bank, the Green Steel Fund, Green Aluminium and Green Hydrogen Fund, as well as free reskilling under TAFE and university courses.

End Handouts for Coal, Oil and Gas Corporations

The Morrison government’s priority focus during the Covid-induced recession was not on securing vaccines and building purpose quarantine facilities to keep Australians safe. Instead it was on a “gas fired recovery” and shovelling even more money at fossil fuel donors.

A staggering \$20,000 is handed over every minute of every day from the government to support the burning of coal, oil and gas.¹⁷

To stay below 1.5 degrees - or even achieve net zero by 2050 - the world’s climate budget cannot accommodate one single new coal or gas machines or infrastructure,¹⁸ yet Federal and State Liberal and Labor governments are actively pouring money into opening up new coal, oil and gas projects.

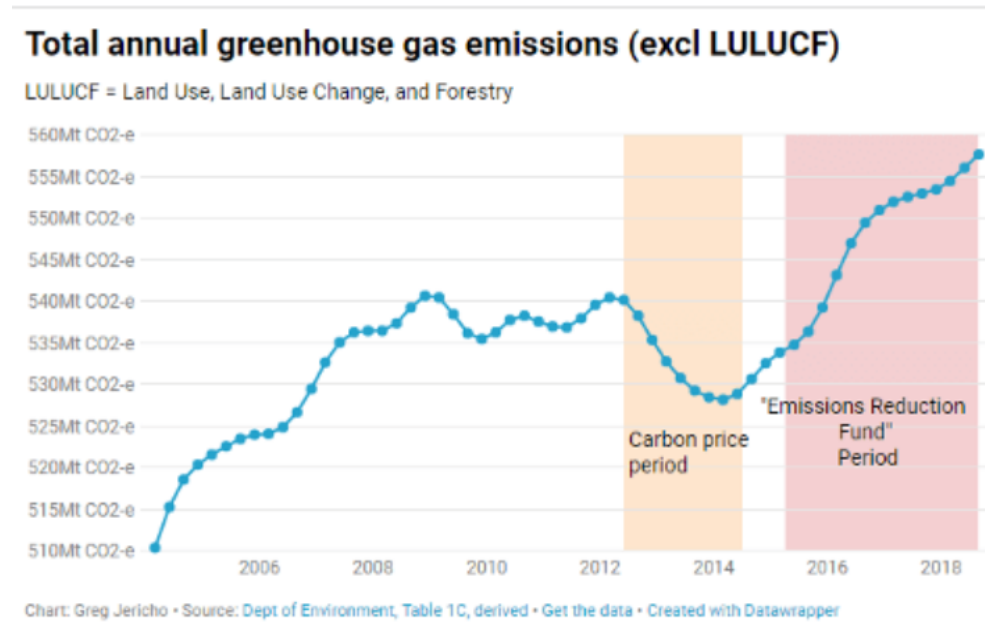
By stopping the handouts that encourage the use and development of fossil fuels, we can free up a staggering \$98.4 billion over the decade to redirect from these sunset industries to reinvest in the sunrise jobs and industries of the future.

¹⁷ <https://australiainstitute.org.au/post/australian-fossil-fuel-subsidies-hit-10-3-billion-in-2020-21/>

¹⁸ <https://www.theguardian.com/environment/2021/may/18/no-new-investment-in-fossil-fuels-demands-top-energy-economist>

Make the Polluters pay for the damage they are doing

In 2010, when the Greens shared power to push the Labor party to go further and faster on climate change we established the carbon pricing mechanism that saw the greatest reduction in emissions ever recorded in Australia.



Credit: Greg Jericho, columnist *The Guardian*

The Greens want a carbon price to pick up where it was heading before it was trashed by Tony Abbott; linked to the European carbon market for the benefit of Australian farmers and driving innovation, clean investment and emissions reductions right across the entire economy, while limiting international offsets to drive these new industries here in Australia.

Not only does a carbon price change the investment decisions of heavy industry, gas exporters and energy companies, but it creates a new revenue source for farmers who can sell abatement on their land.

SECTION THREE: POWERING PAST COAL WITH 100% RENEWABLE ELECTRICITY BY 2030

Summary:

- ‘Snowy Hydro 3.0’ - a big build of renewables to replace our current coal capacity. Snowy Hydro will be transformed into Clean Energy Australia, a wholesale clean energy generator. Clean Energy Australia will be supplied with \$40 billion of equity to build over 25 gigawatts of wind, solar, battery and off-river pumped hydro.
- To support Australia’s shift to clean energy, FutureGrid will be established to upgrade our transmission networks.
- Regional communities will be given the tools and funding needed to become renewable energy hubs.

The first step on our pathway to 700% renewables is transforming our electricity generation and transmission system. The planning work has already been done by the Australian Energy Market Operator (AEMO), and there are no technological or economic barriers to Australia achieving 100% clean energy by 2030.¹⁹ The only barriers are political.

By phasing out coal and gas power plants, investing in offshore and onshore wind, solar and energy storage and rewiring Australia with a 21st century electricity grid we can repower our economy and society with clean energy.

By shifting to renewable energy and “electrifying everything” we not only drive carbon pollution to zero, but we can lower home energy bills and industry costs while creating jobs around the country.

Clean Energy Australia: a Publicly Owned Power Generation Company

Australia already has a publicly owned generation company, the historic Snowy Hydro Corporation. But instead of tasking it with investing in the renewables boom, the Government has provided \$600 million to Snowy to build a new gas-fired power station, we will change that.

¹⁹ [Yes, it is entirely possible for Australia to phase out thermal coal within a decade \(theconversation.com\)](https://theconversation.com/yes-it-is-entirely-possible-for-australia-to-phase-out-thermal-coal-within-a-decade-125444), see also Hydrogen Superpower scenario in AEMO’s 2022 Draft Integrated System Plan.

The Greens' Powering past coal and gas plan means a big build of renewables, through an expansion of Snowy Hydro and creating two new entities from it: Clean Energy Australia, a wholesale clean energy generator; and Power Australia, a not-for-profit electricity retailer.

Clean Energy Australia will be supplied with \$40 billion of equity over the next six years, supporting it to build over 25 gigawatts of wind, solar, batteries and off-river pumped hydro capacity by the end of this critical decade to replace existing coal capacity.

This public investment would also require local and green supply chains, increasing procurement from Australian-based companies and companies using innovative low emission technologies. This construction will only impact the fiscal balance by \$0.2 billion over the decade, given the profitability of these investments.

FutureGrid: Rewiring Australia's Energy System

To rapidly deploy the clean energy required to electrify everything and export our sun and wind energy overseas, we have to urgently upgrade and build new transmission networks - the poles and wires - so that we can open up our sunniest and windiest areas on our land and in our oceans for new jobs and investment.²⁰

By enmeshing our grid and linking up these Renewable Energy Zones, we will unlock new construction and jobs right around the country with a guaranteed connection to the best renewable resources available. However, these transmission lines have become the most expensive component of our electricity.

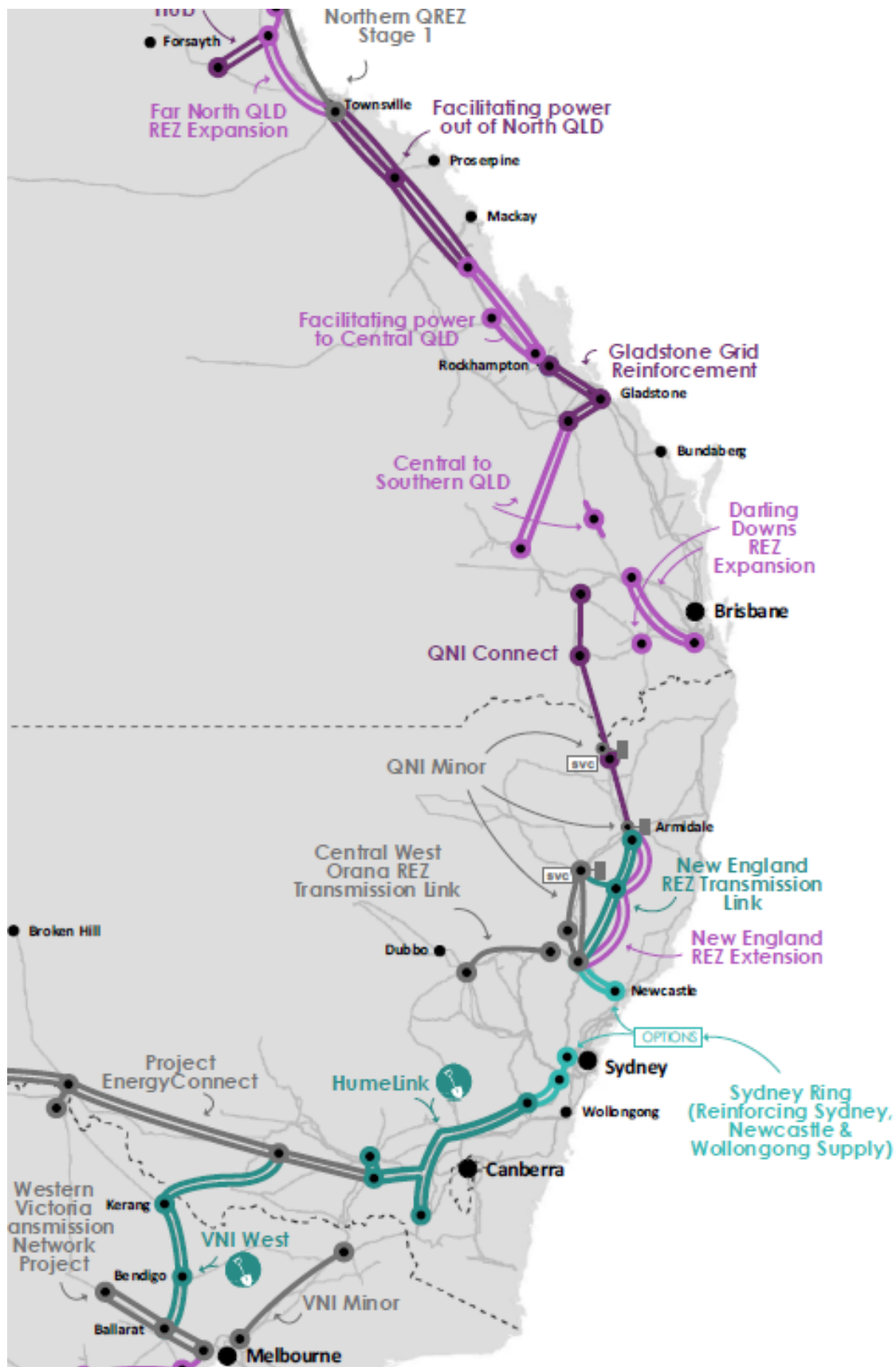
Privatisation of essential services has been a failure, with profits gouged through electricity bills where they need not be. We need a publicly-owned build of those key transmission projects identified by AEMO to open up access to Australia's renewable hotspots. As a public infrastructure project, our FutureGrid plan will keep power prices down by only seeking to recoup costs rather than seek ongoing profits from households and businesses for decades, like our current privatised market model allows.

That is why a new government transmission company FutureGrid will deliver essential services by purchasing key interconnectors and opening up new Renewable Energy Zones, with \$25 billion of equity available to FutureGrid to build this transformation by 2027.

20

<https://www.theguardian.com/australia-news/2019/feb/19/renewables-urgent-investment-australia-transmission-bottlenecks>

A snapshot from AEMO's plans for building the energy system of the future:

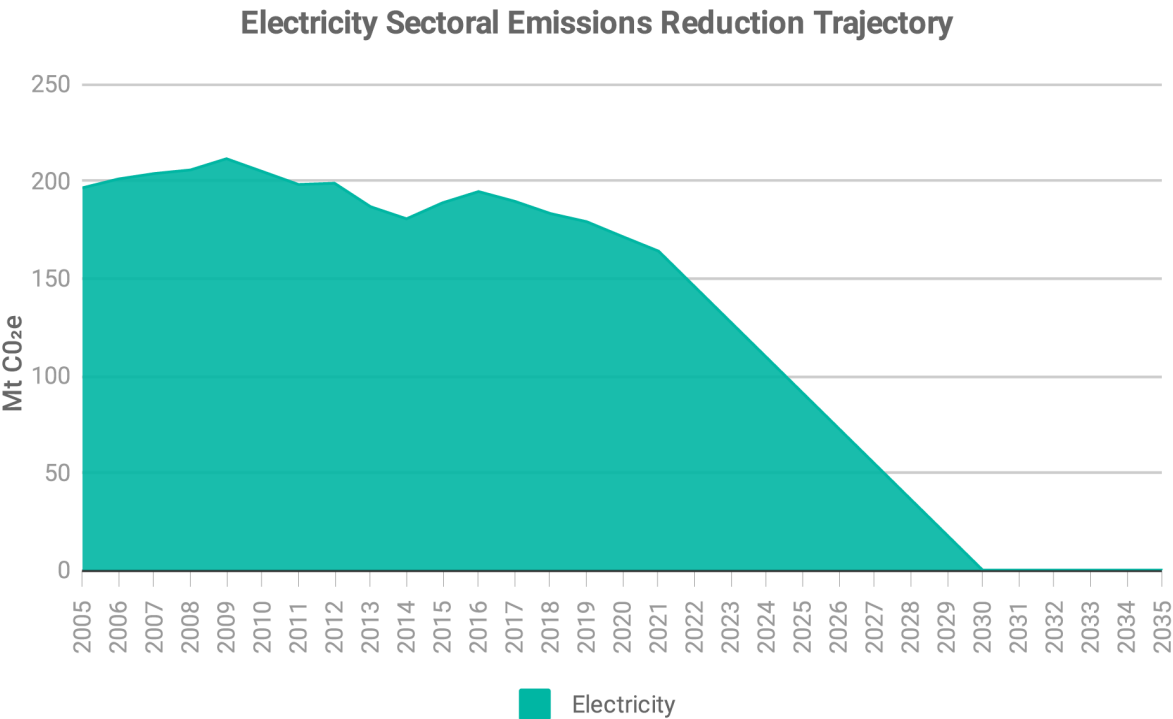


Solar on Schools: Putting solar on public buildings

A \$5 billion, eight year program will be rolled out to utilise the energy from the roofs of all public schools, TAFEs and public universities to allow for retrofitting and refurbishment of existing facilities to be green, accessible, and sustainable.

In addition to creating lots of installation jobs right around the country, putting solar on schools will lower the day to day operating costs of our public education institutions, freeing up more money for them to spend on students, classrooms, and school grounds.

Other public buildings such as libraries, hospitals, and council buildings will be able to apply to the Australian Renewable Energy Agency (ARENA) for \$240 million in grants to improve their energy productivity and install renewables.



Greens policies will mean electricity generation will reach 100% renewables by 2030 and emissions will be zero. Electricity demand will continue to grow in the coming decades, with a goal of reaching seven times the current demand to underpin the electrification of transport, homes, business and industry; underpinning new energy intensive investment such as metals processing, manufacturing and data processing; and new export industries in hydrogen and, direct exports to the Asia-Pacific region via undersea cables.

Locally Owned Community Renewables²¹

A \$100 million First Nations Communities fund to be administered by ARENA, would be established to power communities with cheap, clean power. In addition, a new Commonwealth Agency - Australian Local Power Agency (ALPA) will establish 70 local power hubs to support renewable energy projects in regional communities.

This is similar to the proposal put forward by the Independent Member for Indi, Helen Haines, where each hub would be provided \$500,000 a year for 5 years for establishment and administration costs.

Each hub would distribute seed grants and forgivable loans for small-scale renewable energy and storage projects that are community-driven, have broad local support, and deliver tangible benefits to the region.

The new Agency would also underwrite community owned renewable energy generation and storage projects for up to 10,000 gigawatt hours each year for 10 years in order to guarantee financial and project stability.

The Community Renewable Investment Scheme (CRIS) would require any new large-scale renewable development to offer 20 per cent of the project equity to local communities within 30 kilometres of the project. To administer this scheme, the ALPA would be provided on-going funding to develop guidelines for the scheme, assess whether developers meet those guidelines, and award approvals once developers have completed co-investment funding rounds.

²¹ These policies draw on the Local Power Plan originally proposed by Helen Haines, the independent MP for Indi.

SECTION FOUR: REPLACING COAL AND GAS EXPORTS WITH A 700% RENEWABLES INDUSTRY

Summary:

- To turn Australia into a renewable energy superpower, we will convert gas export terminals into hydrogen export terminals. ARENA funding will be restored to build Australia's clean energy export capability.
- A levy on coal exports will raise \$21.7 billion and will fund the transition away from fossil fuels.
- Gas exporters should have to pay their fair share of tax. The Greens will raise \$92.2 billion from gas companies by charging royalties to extract gas in Commonwealth waters and immediately wiping the \$282 billion backlog of 'tax avoidance' credits gas companies have built up.

Australia's biggest contribution to the climate breakdown is coal exports. We are the world's biggest exporter of coal.²² Approximately 80 per cent of the coal we dig up is exported. All our coal damages our country no matter where it is burned. The policies of the Labor and Liberal parties' don't deal with the climate disaster because they won't touch the mining and exporting of coal.

Meanwhile, Japan and South Korea — two of our biggest energy importers,²³ have lifted their climate targets and told the world that they are phasing out coal and gas imports to substitute it with green hydrogen.²⁴

The clean energy export economy is ours to make. It requires developing hydrogen and ammonia export infrastructure and international underwater cables for direct transmission.

²² <https://www.weforum.org/agenda/2018/01/these-are-the-worlds-biggest-coal-producers/>

²³ <https://www.australianmining.com.au/features/where-does-australias-coal-go-infographic/>

²⁴ https://www.chiefscientist.gov.au/wp-content/uploads/HydrogenCOAGWhitePaper_WEB.pdf

Phasing out gas exports and retrofitting gas terminals for hydrogen and ammonia exports

Gas that is fracked and extracted from below the land (called unconventional gas), has to constantly have new wells drilled into the ground because the gas reserves deplete very quickly. The Greens policy of keeping all remaining gas reserves in the ground means that the LNG exports out of Gladstone Port will begin to decline by a rough rate of 50% by 2030 and 95% by 2040.

Rather than accepting this stranded asset, the Greens plan will dedicate funding from the mid-2020s to retrofit these export terminals for hydrogen. While hydrogen will require substantial upgrading of pipelines, port infrastructure, and compression or transformation technology, the existing major LNG exports hubs in Gladstone, Darwin, and the Pilbara have an excellent infrastructure base on which to build hydrogen export hubs with our \$4.5 billion Green Hydrogen Australia fund.

In order to ensure a stable and predictable transition away from gas, existing offshore gas reserves, while not being able to expand, will be able to deplete their reserves to meet the declining demand in Asia. The north-west shelf will run out of reserves by 2028 followed by Wheatstone in 2033 while Prelude and Darwin LNG will expire in 2044 and Ichthys, Gorgon, and Pluto will finish in 2049 at the very latest.²⁵

To ensure Australian homes and businesses don't get caught without gas, a massive fuel switching program will occur for Australian homes and businesses (page 41-42), combined with a nationwide energy-efficiency program (page 46).

Coal Exports Levy

80% of the coal Australia extracts is exported overseas, just like their profits. Coal companies are profiting from driving climate-fuelled natural disasters while the rest of us have to pay to clean up the damage their products are causing.

To align a coal phase out plan for both energy and steelmaking coal, with the necessary price signals according to their value, each tonne of thermal coal exported would have a levy of \$1 per tonne and \$3 for coking coal before rising by a further \$1-3 per year.

We will also place an export cap on thermal coal exports, using tradable permits issued by the Commonwealth to decrease the maximum allowable annual thermal coal exports from 230 million tonnes in 2023 to 0 by 2030.

²⁵ <https://www.afr.com/companies/energy/lng-exports-risk-going-from-hero-to-zero-20211115-p598xk>

The \$21.7 billion raised over this decade of phase out would go towards two key priorities:

- Paying for their damage by covering the costs and creating the new jobs, in preparing Australian homes and protecting communities from the unavoidable impacts of climate change (see pages 52-54);
- Research and Development support for the replacement of coking coal into green hydrogen for the steel making process to be established in multiple locations around the country (see page 37);

Make Gas Exporters Pay Taxes and Royalties

The Australian Tax Office has named gas companies “systemic non-payers of tax”.²⁶ Despite Australia’s gas exporters earning more than \$50 billion in exports, the Tax Office expects that no significant revenue will be paid under the existing tax system “until the mid 2030s”, a decade later than expected.²⁷

Qatar and Australia export the most LNG in the world. While we export around the same amount of gas, Qatar raises \$20 billion a year in gas taxes,²⁸ and Australia earned just \$0.88 billion from gas companies last year.²⁹ Not only do we barely collect any tax, but we give away gas in Commonwealth waters completely free, no royalties are paid.

No royalties, no taxes, very few jobs, but gas companies continue to have a complete stranglehold over our political parties.

To pay for the climate transition and fund essential services the community needs, the Greens propose to fix the broken regimes regime for petroleum rent taxes by:

- Charging royalties to extract the gas in Commonwealth waters; and

²⁶ <https://www.afr.com/politics/federal/oil-gas-systemic-non-payers-of-tax-20191211-p53iys>

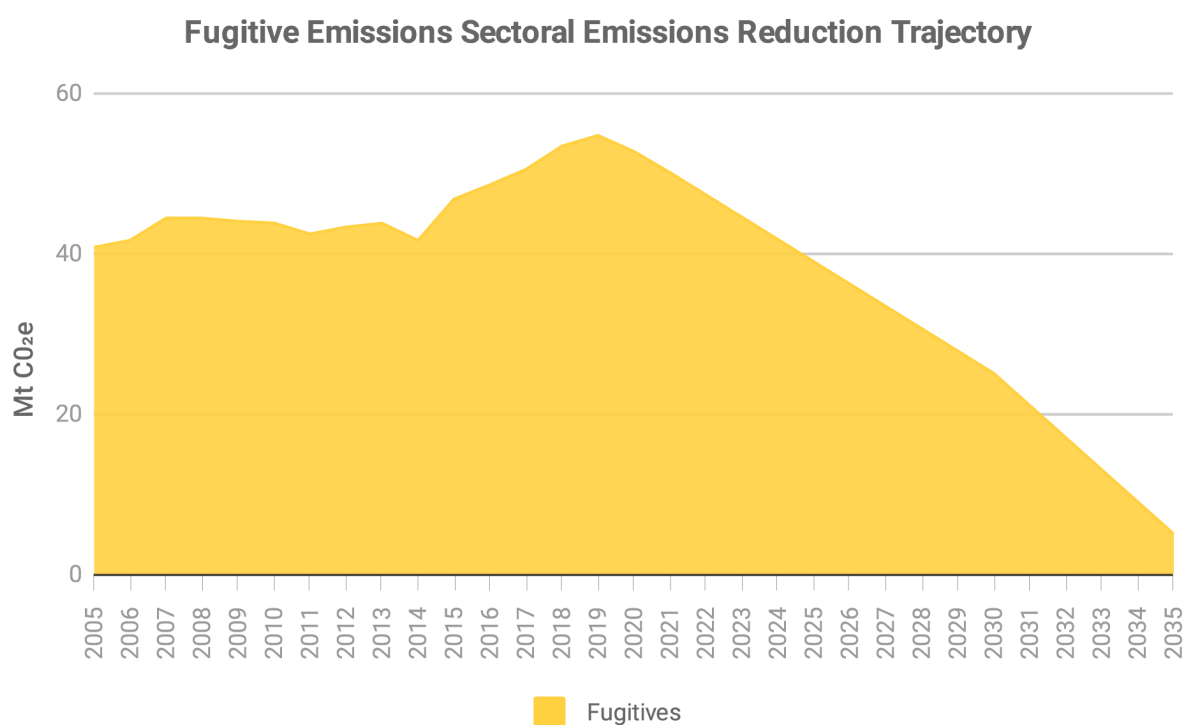
²⁷ Second Commissioner of the ATO, Jeremy Hirshborn at Senate Economics Legislation Committee, Estimates Hearing on 27 October 2021.

²⁸ <https://theconversation.com/in-the-midst-of-an-lng-export-boom-why-are-we-getting-so-little-for-our-gas-131461>

²⁹ <https://www.abc.net.au/news/2021-12-10/companies-multinationals-corporate-tax-transparency-ato-covid19/100687574>

- Immediately wiping the \$282 billion backlog of 'tax avoidance' credits gas companies have built up (which go up in value every year by 5-15% above inflation).³⁰

Doing this will raise \$92.2 billion from these gas giants over this critical decade.



Greens policies for a moratorium on new coal, oil gas and to phase out existing coal, oil and gas extraction will see fugitive emissions from fossil fuel production decline to very low levels by 2035. Fugitive emissions from some remnant metallurgical coal and gas production will be cancelled out by negative emissions in the LULUCF (Land Use, Land-Use Change and Forestry) sector.

³⁰ ATO 2018-19 Taxation Statistics PRRT carry forward credits.

Building Clean Energy Export Infrastructure: Restoring ARENA's funding cuts

Wind and solar can be turned into emissions-free hydrogen through electrolysis and exported overseas within ammonia, as 'bottled wind and sunlight'. Similarly, we can build massive underwater transmission cables that extend into Asia, something a project called 'Suncable' is working on right now out of the Northern Territory.

To turn these opportunities to make 700% renewables into reality and help our neighbours reduce their emissions too, we have to invest in bringing down production, logistics costs and put market infrastructure in place in order to prove our supply chain will be the smartest and most efficient in the world.

This is a role perfectly suited to ARENA, working in partnership across government and industry. At the beginning of the previous Parliament, the Liberal and Labor parties teamed up to strip half a billion dollars out of ARENA's budget.³¹

The Greens will reinstate ARENA funding, investing \$500 million in the first year of the forward estimates, with the sole purpose of building up Australia's clean energy export capability.

The Greens will also revise the mandate of the Export Finance and Insurance Corporation and Clean Energy Finance Corporation to facilitate support for the development of renewable energy exports and High Voltage DC transmission cables and hydrogen fuel exports into Asia.

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<https://www.theguardian.com/australia-news/2016/sep/13/labor-accused-of-being-clean-energy-charlatans-after-deal-to-cut-500m-from-arena>

SECTION FIVE: REFURBISH OUR INDUSTRIAL HUBS AND CREATE A MANUFACTURING RENAISSANCE

Summary:

- Manufacturing still has a place in Australia. A \$15 billion 'Made in Australia' manufacturing bank would support manufacturing, innovation, industrial decarbonisation and re-localisation of supply chains.
- Heavy industry will be modernised to take advantage of future clean exports like hydrogen through ammonia and green steel through the Green Steel Australia fund, Green Metals Australia and Green Hydrogen Australia.

The biggest winners of the transformation to a hydrogen superpower are existing deepwater ports co-located with heavy industry and offshore wind resources. That means places like Gladstone in Queensland, the Hunter and Illawarra in NSW, and LaTrobe Valley/Southern Gippsland in Victoria will come out on top.

This is because hydrogen is large, heavy, and expensive to transport long distances, which means the best use for hydrogen is for it to be used nearby (either for steel making and other industrial uses, or to convert into ammonia and fertilisers for export). With 40,000GW of wind potential in Australian waters (by way of reference, Australia's entire energy grid is around 55GW of capacity), the creation of hydrogen in deepwater industrial centres connected to our offshore wind resources gives Australia a massive global advantage.

But it won't happen without serious public investment from an entrepreneurial state working with Australian and global industry.

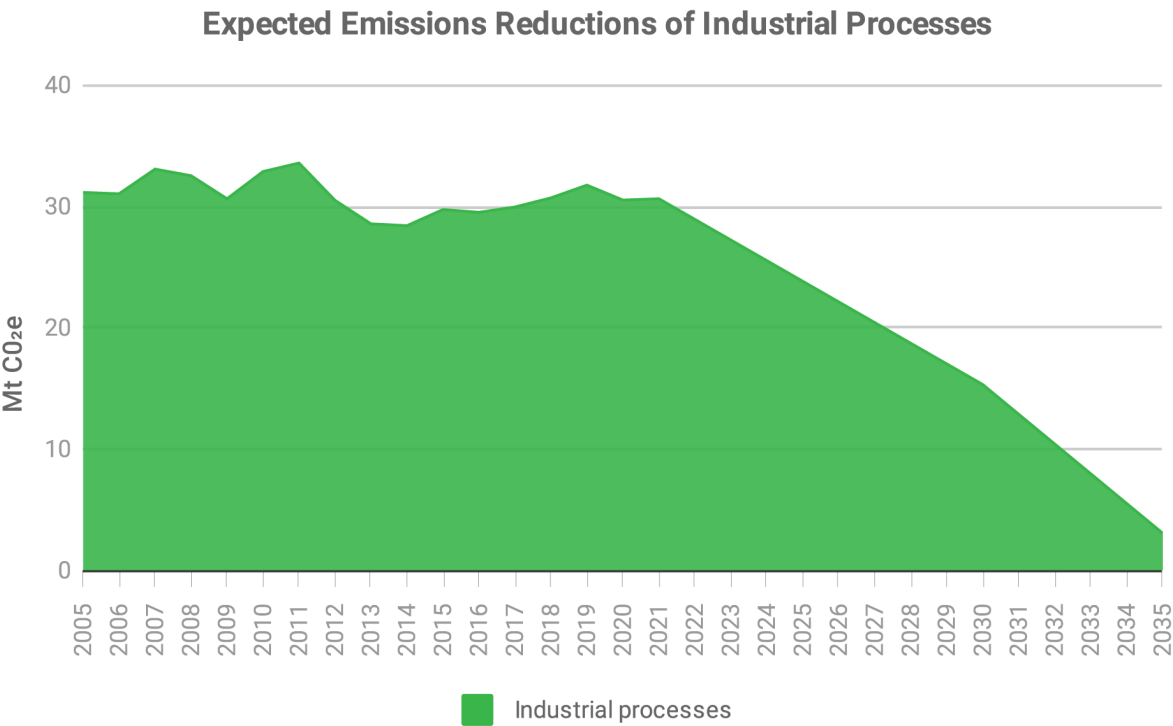
Manufacturing "Made in Australia" Bank

Clean, cheap abundant energy from our vast sun and wind resources will be Australia's competitive advantage in net zero global trade, but only if we seize it. With such abundance of sun and wind energy, we can drive energy costs close to zero, which will see the return of manufacturing to our shores.

Australia's Manufacturing renaissance can occur in those select areas we know we could have an advantage in a zero carbon economy, from manufacturing electrolyzers, heat pumps and battery technologies. But it can also extend to medical equipment and pharmaceuticals, food

and packaging products. There are also great opportunities in supply chains for electric vehicle components, wind towers and public transport infrastructure made with emissions free steel.

A \$15 billion ‘Made in Australia’ manufacturing bank would support manufacturing, innovation, industrial decarbonisation and re-localisation of supply chains. It would have a similar structure to the existing Clean Energy Finance Corporation (CEFC) in terms of the Commonwealth balance sheet and provide direct grants, equity investment, financing and concessional loan options depending on the corporate structure of applicants. However \$3 billion in direct grants would also be available for co-investment.



Industrial process emissions are generated by a wide variety of industrial activities, such as manufacturing. Policies like the ‘Made in Australia Bank’ will support the decarbonisation of Australian manufacturing and lead to significant emissions reductions in industrial processes. Remaining emissions will be cancelled out by negative emissions in the LULUCF sector.

The “Made in Australia Bank” would target small businesses, worker’s cooperatives, green not-for-profit and social enterprises that are engaged in innovative production, research and development. The bank would manage \$12 billion of equity and concessional loan investments with loan repayments, returns on equity and earnings reinvested. The total impact on the fiscal balance would be \$5.1 billion over the critical decade.

A Green Future for heavy industry and deepwater ports

To secure the future of Australia's heavy industry in a world without emissions, a series of sector-specific agencies and funds will be created to protect and modernise existing heavy industries, and focus on areas of future clean exports like hydrogen through ammonia and green steel.

A Green Steel Fund and Green Metals Australia will support using Australia's vast iron ore deposits to create Green Steel from hydrogen, to export value added products to the world again, instead of just being a quarry with jobs and export value lost to our overseas customers. Green Metals Australia will be funded with \$3.5 billion of capital over the next ten years and an additional \$500 million for Green Steel development specifically.

Complementing that will be Green Hydrogen Australia, with \$4.5 billion over the critical decade to ensure those crucial markets like Japan and South Korea get their green hydrogen from Australia instead of competitors in the Middle East or South America. This fund will ensure that Australia becomes a leader in green ammonia and other value chains for zero carbon fuels and feedstocks.

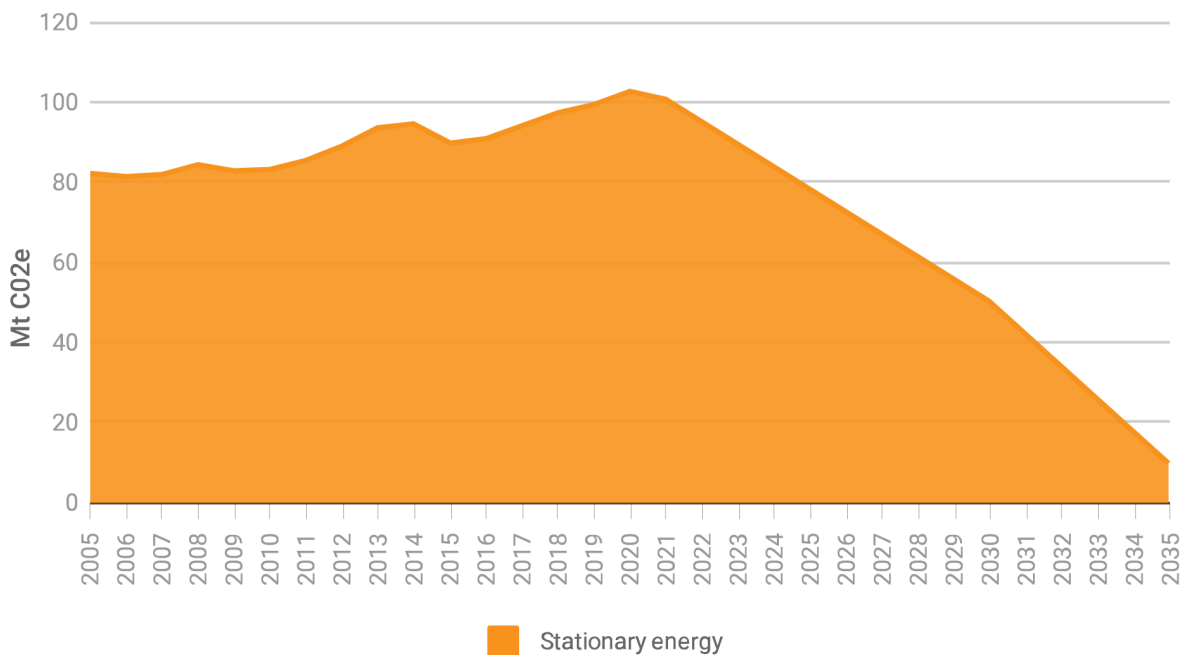
Green Aluminium Australia will start out with \$150 million over the critical decade to modernise and secure its emissions free future. In addition, Snowy Hydro will seek to acquire the Portland Smelter and retrofit its potlines with additional capital grants of \$212 million, so it acts as a giant energy demand management centre in Australia's smart electricity network.

The very hard-to-abate sector of cement will also receive a dedicated \$200 million for research & development to reduce emissions in production and electrification processes.

The Clean Technology Program that was axed by Tony Abbott, will be reinstated to co-invest with industry in capital equipment that will help electrify everything and replace gas use and gas feedstocks. It will have its previous funding doubled to \$1.6 billion between 2022-23 and 2028-29.

\$200 million will also be provided to reinstate the Clean Technology Food and Foundries Investment Program that was also axed. That will help manufacturers in the food and foundries industries to invest in energy efficient capital equipment, shift off gas and emissions intensive fertilisers, and finally the Clean Technology Innovation Program will be allocated \$400 million to support research that would reduce greenhouse gas emissions.

Stationary Energy Emissions Reduction Projection



Policies to restore funding for the Clean Technology Program, fund R&D in the cement industry, and Green Metals Australia will ensure that manufacturers are able to invest in emissions-free technologies. Stationary energy emissions are the result of energy generation for manufacturing, commercial and construction sectors, and the negative emissions in the LULUCF sector will mitigate the remaining stationary energy emissions.

R&D for Shipping, Aircraft and New Technologies

Shipping and aviation are very hard sectors to reduce emissions in. A combination of electrification, bio-fuels derived from (non-forestry) waste and hydrogen-based fuels is what will be needed to get their emissions to zero. \$100 million will be allocated to drive the research and uptake of replacement fuels and technologies for international travel and shipping. More funding will be allocated to pursue specific policy or further research outcomes that come out of the initial allocation.

Making Electric Vehicles in Australia

Supporting an electric vehicle (EV) manufacturing industry will mean thousands of jobs for Australians. It will have flow on benefits supporting research, development, and manufacturing across the country in other industries.

The Greens will provide \$1.2 billion in support to the manufacturing of electric vehicles and their components here in Australia, including a national plan, coordination with major buyers including state and territory governments.

These grants will operate similarly to the Automotive Transformation Scheme that the Morrison Government underspent by hundreds of millions of dollars, with grants that can cover up to 15% of the cost of eligible plant and equipment and 50% of eligible research and development investments. Eligible companies would include not only electric vehicle manufacturers, but electric vehicle component manufacturers such as producers of lithium-ion batteries, electric motors and EV charging equipment.

We will also secure the demand pipeline for Australian-made vehicles, with our First EV Grant providing a 50% loading for Australia made cars and light commercial vehicles, pushing down the comparative price of an Australia made EV compared to imported models.

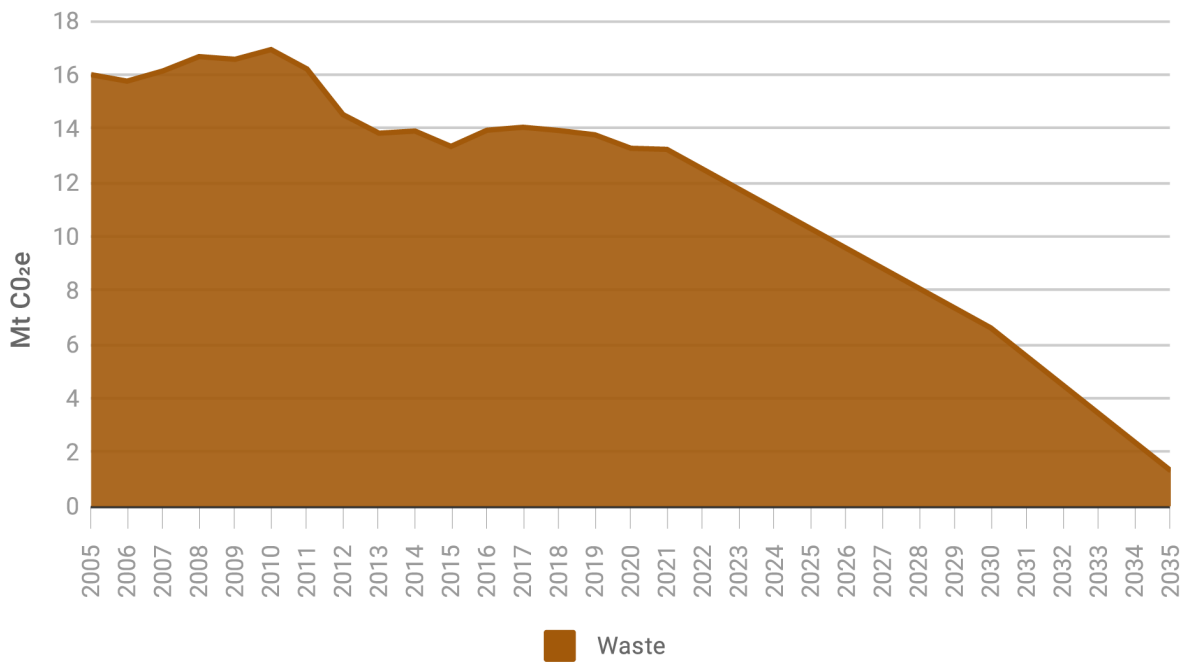
A Circular Economy

Building a circular economy that works means creating a whole-of-government approach. We will invest \$500 million over five years into infrastructure and programs to reboot recycling and support the growth of a robust, jobs creating, waste and recycling system. We will also use this investment to support local councils with grants and other assistance to make the transition to a circular economy.

We will amend legislation to make the Australasian Recycling Label mandatory. The Greens will also empower community action and incentivise manufacturers to include recycled content in their products by introducing a Made with Australian Recycled Content label.

We have the opportunity to be a major driver of research, development, and entrepreneurship. The Greens will support leadership in Australia's research efforts into avoiding, reducing and replacing plastic waste, cleaning up our oceans and finding end-markets for recovered plastic, through a Plastics Co-operative Research Centre (CRC) or other appropriate means. Federal funding of \$50 million over ten years would be provided.

Projected Waste Emissions Reduction



Our policies to create a circular economy, including rebooting recycling, incentivising manufacturers to include recycled content in their products, and funding research and development to avoid and reduce plastic waste will drive emissions reductions in the waste sector.

SECTION SIX: SAVING AUSTRALIAN HOMES AND BUSINESSES MONEY BY ELECTRIFICATION

Summary:

- Australian households and businesses will benefit from cheaper cleaner energy. Power Australia will be set up as the retail arm of Snowy Hydro to provide cheap, clean electricity. Homes and businesses will be provided with grants to make the switch from gas to electricity.
- The Greens will be tackling transport emissions by making electric vehicles affordable and available, electrifying public transport networks, getting commuters out of the air and onto high-speed rail, and turning our cities into walkable and bike-friendly places.
- Our energy consumption needs to be more efficient. A National Energy Efficiency Target Scheme will place an obligation on energy retailers to drive energy efficiency improvements across households and businesses.

What has become clear is that acting on climate change doesn't require personal sacrifice or higher costs of living, in fact many essential services will come down in price. It is not acting on the climate crisis that will cost us the earth.

The below section of policy measures are designed to drive down Australia's emissions rapidly, but they also have the effect of lowering the financial pressures of daily living, from electricity and heating use, to personal transport and businesses operating costs.

The section below on adapting for climate impacts will also lower the costs of insurance premiums and health costs, while also creating jobs in building the social infrastructure we need to keep us safe from increasingly intense natural disasters.

PowerAustralia: A not-for-profit government owned retailer

Privatisation of essential energy production has been a disaster and has hit lower income households the hardest. Energy retailers have done nothing to improve the quality of our lives by spending our money mercilessly advertising back to us. It's time to end this failed experiment.

The Greens' Powering Past Coal and Gas plan reorients Snowy Hydro as a publicly-owned retailer, with a new mandate to work in the public interest to deliver low cost energy and drive competition, rather than being just another market player scooping up super-profits. Our plan will push electricity bills down by around \$50 a year.³²

Getting Homes and Businesses off the Gas

Gas is as dirty as coal and when it is tapped directly into our homes, it's responsible for 12% of childhood asthma.³³ To improve our health and lower our power bills, the Greens plan would provide grants and loans to households and small businesses to help them disconnect from gas.

Not only does removing gas from your home improve children's health and help the planet, it will set Australians on the path to save \$6,000 a year in energy costs.³⁴

For households to power past gas, a grant of up to \$10,000 and low interest loans of up to \$20,000 will be offered to replace gas-fired boilers, water heaters and cooktops with electric alternatives. For small businesses, including the thousands of retail and commercial businesses who currently rely on gas for space heating, water heating and appliances, we would offer grants of up to \$25,000 for small businesses and low-interest loans of up to \$100,000.

The grant component is limited to 20% of the total cost of the replacement project, but can be increased to 50% for a household or business if it agrees to disconnect from the gas grid entirely within six months. The Greens will also work with state and territory governments to ban gas connections for new housing developments.

With dwindling gas fields in the south of Australia, reducing gas demand will create far more jobs and local economic activity than the alternative of building networks of gas pipelines or energy hungry LNG terminals, both of which will lock in higher gas prices for decades to come.

Powering Up: Battery Storage for Homes and Businesses

To meet our future needs, we need to boost our ability to store clean energy so that it's available when we need it. Not only would Clean Energy Australia drive a lot of the grid scale investment, but a financing storage scheme would be established using both grants and loans for household level storage.

³² ACCC Inquiry into the National Electricity Market November 2021 Report

³³ <https://www.nationalasthma.org.au/living-with-asthma/resources/patients-carers/factsheets/gas-stoves-and-asthma-in-children>

³⁴ <https://www.abc.net.au/news/2021-10-04/rewiring-australian-households-could-save-up-to-6000-per-year/100512028>

The scheme would be uncapped and open to everyone. For homes, grants of up to \$5,000 will be available to install household storage technology. They would be limited to 50 per cent of the total cost of the upgrade. Low interest loans of up to \$10,000 would also be available to any Australian household to install household storage technology.

Grants of up to \$10,000 would be available to any Australian small business with a turnover below \$10 million to install a battery at their business site. Grants would be limited to 50 per cent of the total cost of the upgrade. Meanwhile, low interest loans of up to \$50,000 would be available to any Australian small business to install a battery at their business site

Loans would be offered at the Reserve Bank of Australia (RBA) overnight cash rate with a maximum ten-year fixed term. This program is expected to cost \$7,024 million and deliver storage units to around 968,692 homes across the country.

The Community Renewables Program (see page 29) will also be able to support community storage programs where the amount of emissions saved will be well in excess of the 1 million tonnes of abatement over the decade, as promised by the Labor party.

Getting Electric Vehicles onto the Road

Electric vehicles are transforming the world and millions are now being sold globally each year. The global percentage of all new vehicles which are electric, is growing at a rapid rate to reach 10.8% of global sales.³⁵ However in Australia they are just 1.6%.³⁶

But Australia is falling behind, with both Liberal and Labor parties refusing to implement the vehicle CO2 and efficiency standards that exist in almost every other car market in the world.³⁷ This means that EV automakers have an incentive to sell their cars in those markets instead, making electric models harder to find and more expensive for Australians.

The Greens do not want this future. To ensure EVs are sold in Australia, we want to join nations like the United Kingdom, Sweden, and the Netherlands by ensuring that all new car sales are electric or other zero emission vehicles from 2030. By introducing a light vehicle emissions standard, the Greens will require all major car companies to increase the proportion of their annual sales of vehicles to be zero emissions vehicles between now and 2030.

To get electric vehicles onto the road, we have to speed up their affordability, similar to the way we did with rolling out solar panels onto Australia rooftops. To achieve this, the Greens will introduce the First EV Rebate.

³⁵ <https://www.bloomberg.com/news/articles/2021-12-09/peak-oil-demand-is-coming-but-not-so-soon>

³⁶ https://electricvehiclecouncil.com.au/wp-content/uploads/2021/08/EVC_annual_report_-_V3-Aug-13th-1.pdf

³⁷ <https://www.smh.com.au/politics/federal/labor-to-dump-fuel-emissions-plan-in-next-step-on-climate-20211130-p59dkj.html>

The First EV Rebate would provide up to \$15,000 for your first electric vehicle,³⁸ with the total maximum grant size declining over the coming years as EV uptake increases and phasing out entirely after 2.5 million vehicles have been rebated under the scheme as per the below timetable:

Eligible Buyers	Total Rebate (Import vs Australia Made)
First 100,000	\$10,000 / \$15,000
Next 200,000	\$7,500 / \$11,250
Next 200,000	\$5,000 / \$7,500
Next 500,000	\$3,000 / \$4,500
Next 500,000	\$2,000 / \$3,000
Next 1,000,000	\$1,000 / \$1,500

The total maximum rebate that an individual purchaser is eligible to receive is up to 20% of the total cost of the vehicle, or 30% if the vehicle is Australian made.

In addition, the Commonwealth would provide all recipients of the First EV Rebate with an opportunity to utilise the First EV Loan.

This First EV Loan would dramatically reduce the interest paid for those who need financing to afford their vehicle, seeing the Commonwealth finance up to \$50,000 of the remaining price of the vehicle at concessional rates well below the market standard.

The Greens will also provide \$2 billion over the next two years to FutureGrid, our proposed publicly owned electricity transmission and distribution company, to build new electric vehicle charging infrastructure.

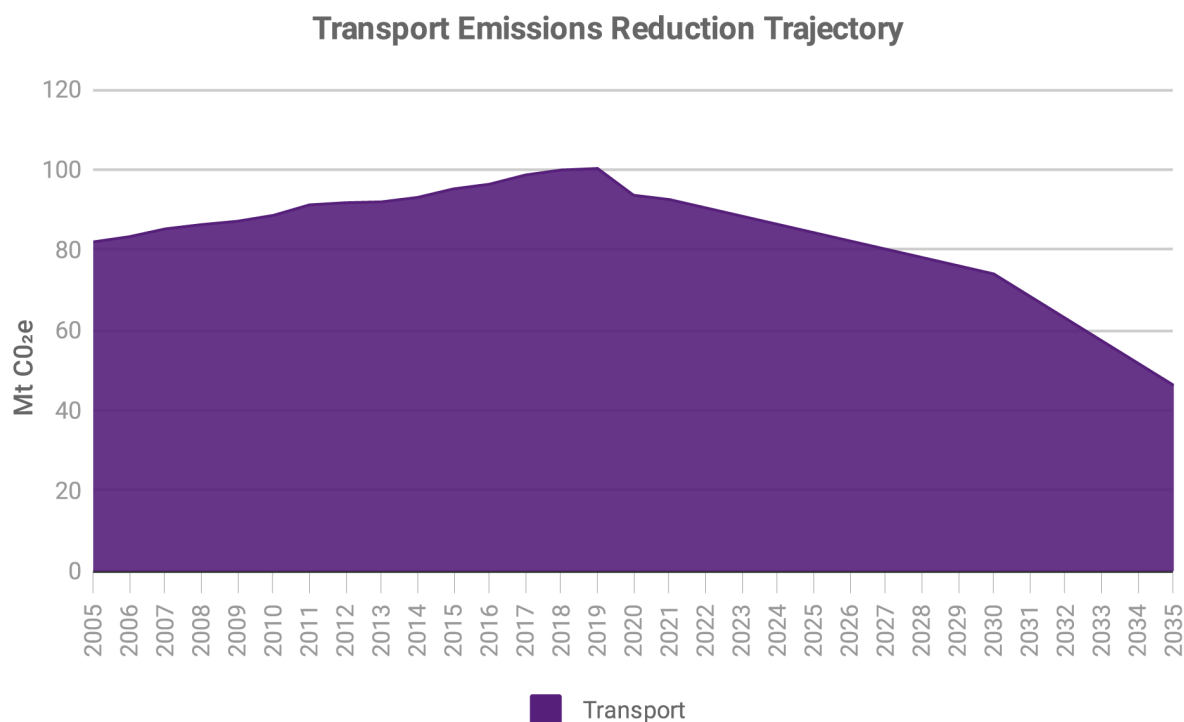
This funding will be prioritised for fast charging stations that allow drivers to get to 80% charge in approximately 15-30 minutes, with a focus on installing over 30,000 fast chargers at critical points all across the country, ensuring that everyone will have access to the electric vehicle revolution.

Finally, the Commonwealth has over ten thousand cars in its fleet. The Greens will make sure that all new Commonwealth vehicles are electric by 2025, contributing to the decarbonisation of the Commonwealth's own energy use, and injecting a large number of EV's into the second hand market at the end of the Commonwealth leasing period.

³⁸ Each individual would be eligible for up to one rebate, with a register to be kept by the Clean Energy Regulator on receipt of the rebate. Given low uptake of electric vehicles to date, this would be the first electric vehicle for most individuals, however existing electric vehicle owners who have not yet received a rebate would also be eligible.

Affordable and reliable Public Transport

Australia's very high transport emissions, at nearly 20 per cent of our total pollution,³⁹ means we need to use our clean energy to power a transport revolution. By shifting to electric vehicles and expanding our public transport networks, getting freight on rail, and supporting walkable and bike friendly cities, we drive down our transport emissions rapidly.



Our policies to support the uptake of electric vehicles, invest in public transport, electrify bus and train networks and create walkable and bike-friendly cities will drive down transport emissions, a major contributor to Australia's total emissions. The negative emissions from the LULUCF sector will cancel out any remaining transport emissions.

To ensure stable jobs for the years to come and to push up wages through full employment, the Greens plan involves a steady pipeline of new public and active transport projects, including High Speed Rail to link up our east coast capital cities, as well as rail, bus and active transport infrastructure to connect places together.

In addition to this indexed \$3 billion a year for nation-building projects, an additional capped \$3 billion fund is needed to help states electrify their bus and train networks in order to reduce reliance on fossil fuels to run public transport systems.

³⁹ Pre-pandemic levels. The latest accounts still include dampened transport and travel during lockdowns and border closures.

High speed rail between Australia's eastern mainland cities would be a transformative project that will link up regional cities with our capitals and will be central to the shift to a clean economy. Building high speed rail would provide a sustainable alternative to domestic flights between Sydney, Melbourne, Canberra, Brisbane, and connecting regional cities.

Rather than leaving the project to private developers, the Greens will build this project with public funds in the public interest. The Greens will set up the Australian High Speed Rail Authority and provide \$17.7 billion in funding to cover the first four years of expenses to finally get High Speed Rail moving.

Energy Efficiency Target Scheme

Cleaning up our energy system means using energy smarter. Our goal is to double energy efficiency by 2030 – this means significantly reducing the electricity and gas we currently use to achieve the same results.

The most effective way to do this is through the National Energy Efficiency Target Scheme which will place an obligation on energy retailers to drive energy efficiency improvements across households and businesses.

The scheme will work in tandem with existing state-based schemes which will eventually be 'absorbed' into the national scheme upon their expiration. The target will be set using forecasting from the AEMO to establish a trajectory for the energy efficiency target.⁴⁰

To stimulate innovation and investment in the building industry to deliver higher energy performance in buildings at lower cost, the Greens will also mandate strong energy efficiency targets for new buildings in the National Construction Code of 22-60 per cent by 2030.⁴¹ Setting effective energy efficiency standards could also reduce energy bills by up to \$27 billion, cut energy network costs by up to \$7 billion and deliver at least 78 million tonnes of savings by 2050

⁴²

⁴⁰ Developed in consultation with *Green Energy Markets* and the *Energy Savings Industry Association*

⁴¹ This target is in line with recommendations in the *Built to Perform* report
<https://www.asbec.asn.au/research-items/built-perform/>

⁴² Australian Sustainable Built Environment Council (ASBEC) and ClimateWorks Australia, *Built to Perform: An Industry Led Pathway to a Zero Carbon Ready Building Code*. July 2018

SECTION SEVEN: CLIMATE REPAIR - RESTORING THE LAND AND CARBON DRAWDOWN

Summary:

- To return to a safe climate we need to go beyond net-zero emissions and start drawing down pollution from the atmosphere. Over time Australia's landscape can play a big role in drawing down carbon and putting us on a pathway to safe-climate.
- By introducing a price floor on the carbon market, we can give farmers a new revenue stream and turn Australia into a carbon sink.
- Similarly, we need to start protecting and preserving our native forests and supporting sustainable forestry.
- A Centre for Climate Repair will research and develop ways to start to repair the climate from large scale drawdown to improved air quality in our cities.

Getting to net-zero emissions will stop making the climate crisis worse, but it won't end the damage caused by global warming. Greenhouse gases can stay in the atmosphere for decades, centuries, and millennia, so unless we go beyond net-zero and return our atmosphere to safe levels of gases – the climate damage will continue.

Scientists estimate a safe climate to be somewhere between 300-350 ppm of CO₂, this means we need to reduce atmospheric CO₂ concentrations in the atmosphere by approximately 100 ppm. This means removing approximately 1600 GigaTonnes CO₂ from the atmosphere.

That is why the Greens climate targets are for a 75% reduction on 2005 levels by 2030 and net-zero emissions by 2035, we will then go further and aim to be a net-negative emissions economy with over 100 million tonnes of net drawdown every year by 2050.

With the right policies we estimate that we can drawdown this 100 million tonnes a year of emissions through land use change and protecting our land and our forests. At first this drawdown will be needed to support our goal of net-zero and cancel out remnant emissions that are hard to eliminate quickly. Over time as we move to net-negative emissions, this drawdown can start to contribute to the goal of returning the world to a safe climate.

The Greens are the only Australian political party with a policy for carbon drawdown and climate repair. Labor and Liberal's aspiration for net-zero envisages the continued use of fossil fuels which must be "netted" out with negative emissions. They have no plan for drawing down carbon

pollution beyond net zero and assisting in the return to a safe climate. Their policies are a recipe for continued climate damage from ongoing sea level rise, high temperatures and extreme weather.

The Greens' drawdown policies will ensure Australia can lead the world in facing up to the challenge of moving beyond net-zero and returning the planet to a safe climate, with a massive global drawdown effort.

Improved Agriculture

Currently agriculture is responsible for 15 per cent of Australia's emissions,⁴³ but there are huge opportunities for Australian farmers and land managers to change their practices, regenerate their land, and turn Australia's landscape from a carbon source into a carbon sink. There is already significant action being taken across the agricultural sector. Meat and Livestock Australia, for example, has a carbon neutral target by 2030.⁴⁴

Australian land managers and farmers can create new revenue streams by selling abatement secured into the land. This could be done through international carbon markets (like Australia's carbon market which was set to join the EU before it was scrapped by the Coalition), or it can be done by selling abatement directly to the Government.

A new income stream for farmers

The only option currently available to land managers is to sell to the Government through their Emissions Reduction Fund. This requires farmers to spend money assessing opportunities, then bid into an auction with the hope of securing a measly \$16 a tonne of abatement.⁴⁵ Unsurprisingly, land owners aren't interested in joining such a high risk, low reward program.

Had the carbon price remained in place, Australian farmers could be selling abatement into Europe for between \$80 to \$100 a tonne at the moment.

Land-sector emissions reductions are needed to get us below zero after 2035. Australian Carbon Credit Units (ACCUs) are needed to support large-scale drawdown and reduce the amount of greenhouse gases in the atmosphere rather than just balancing fossil fuel emissions.

After a review and reforms to ensure the integrity of ACCUs, The Greens will enable the Clean Energy Regulator to set a price floor on the carbon market by becoming a fixed purchaser of Australian Carbon Credit Units (ACCUs) at \$50 a tonne, giving farmers confidence, when it comes to adopting new practices or altering land-use patterns, they will get a guaranteed price.

⁴³ Quarterly Update of Australia's National Greenhouse Gas Inventory: June Quarter 2021.

⁴⁴ <https://www.mla.com.au/research-and-development/Environment-sustainability/carbon-neutral-2030-rd/cn30/>

⁴⁵ <http://www.cleanenergyregulator.gov.au/ERF/auctions-results/april-2021>

A floor price will also force companies to pay more than \$50, separating out those companies that are genuine about emissions reductions against those that just want to greenwash their brand.

The abatement acquired by the government would not be traded or sold to companies seeking to offset their emissions. This policy is about drawdown, not covering up for the damage caused by expanding the coal, oil and gas industry.

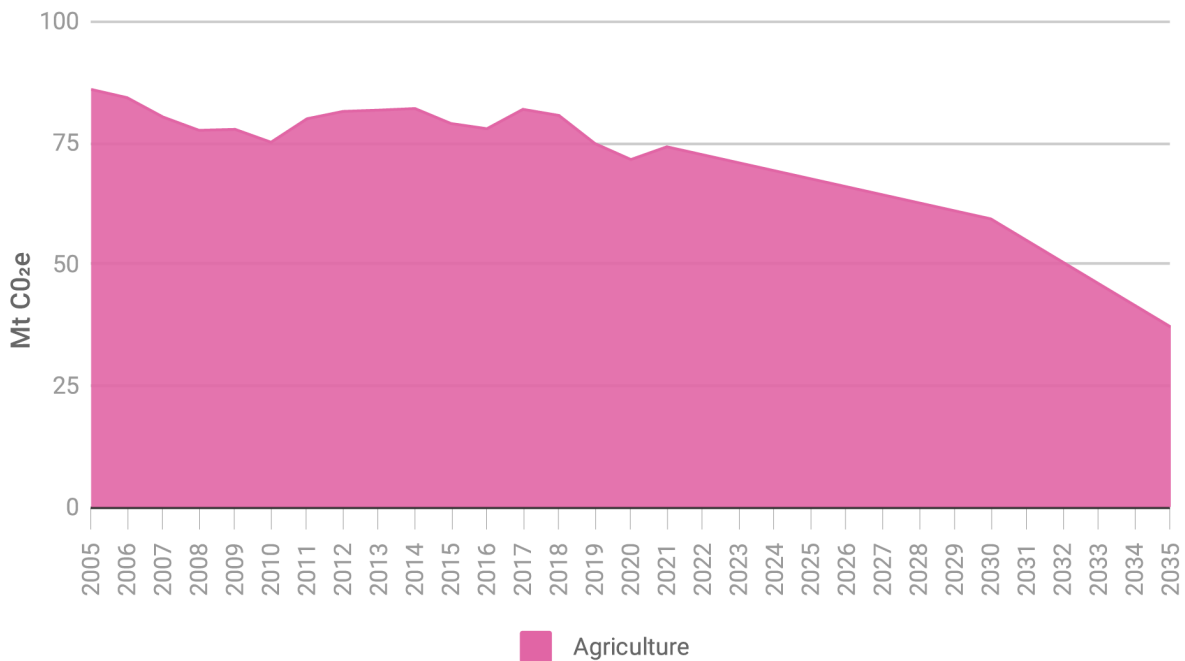
This would crowd out the market for coal and gas companies to buy cheap offsets and keep polluting as normal so that pollution in the atmosphere stays the same. The PBO estimates take up of this program would see \$10.8 billion of public money distributed out to land managers reducing emissions over the decade.

The Greens will also initiate an independent review of current ACCU methodologies, removing discredited CCS, ensuring sequestration methodologies are more robust, and de-emphasising emissions avoidance methodologies which are questionable and difficult to assure.

Finally, the Greens will also restore the Carbon Farming Futures program of \$25 million per annum, which the Coalition Government axed in 2016. These grants saw over \$139 million go into over 200 projects across the country. By restoring funding to this program, we can see hundreds more carbon reducing projects get off the ground.

With the government owning these land sector reductions and emissions being driven below zero, we can begin the epic intergenerational task to restore the planet to a safe climate.

Projected Emissions Reduction for Agriculture



Policies such as restoring the Carbon Farming Futures Program, and setting a carbon price floor will give farmers the confidence to actively pursue emissions reductions and carbon drawdown activities. Remaining emissions will be cancelled out by negative emissions in the LULUCF sector.

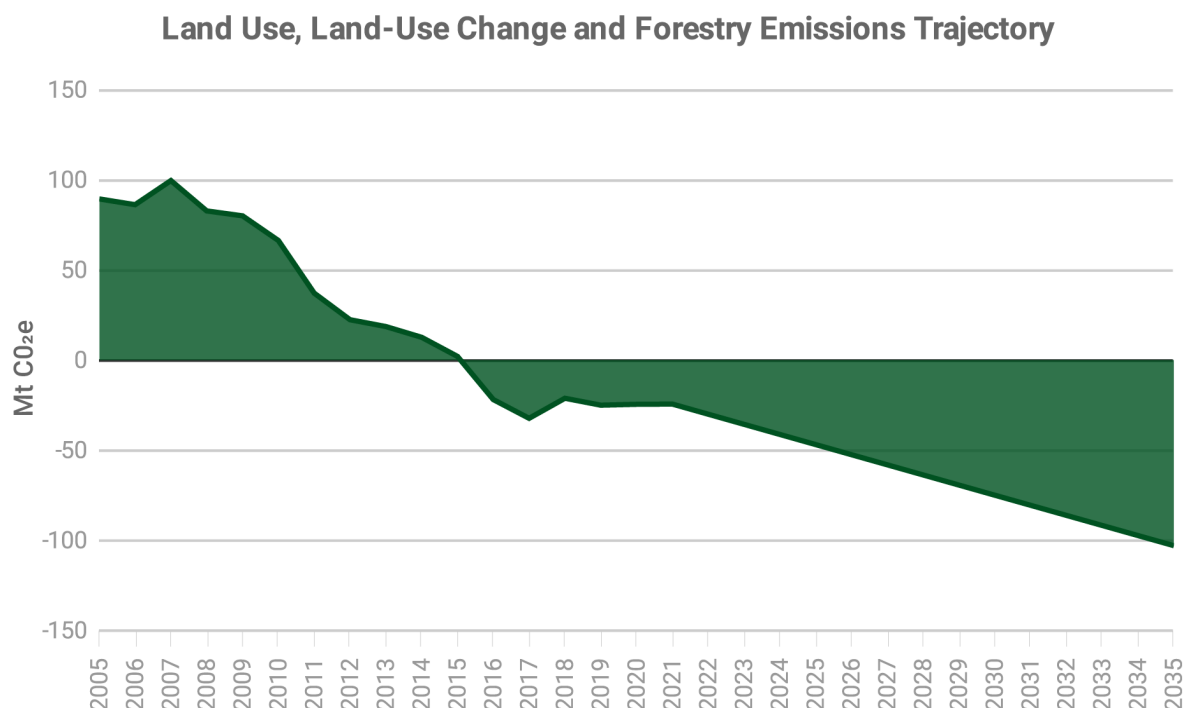
Protecting our Forests

The easiest and cheapest way to prevent further global heating is keeping our forests exactly as they are. Our climate plan requires ending the destructive logging that is destroying wildlife habitat, water catchments, carbon stores, the beauty of our forests, and opportunities for tourism and recreation.

This also requires protecting all native forests on public land, including the takayna/Tarkine in Tasmania, Great Forest and Emerald Link in Victoria, key koala habitats in NSW, all remaining Karri and Jarrah forests in the south west of Western Australia, and native forests elsewhere around the country.

To end all exports of woodchips from native forests and all industrial scale clearfelling and woodchipping of native forests, funding will be established to negotiate the end of native forest logging with states and territories, and provide \$10 million to research and plan a strategy on how the forestry sector could sustainably support Australia's transition to net zero emissions.

A further \$20 million over four years would be provided to fund the research and development of sustainable wood products and \$40 million over four years to provide support for farm forestry through the regional farm forestry hubs.



The LULUCF sector is instrumental in achieving net zero by 2035. The Greens' policies such as supporting carbon drawdown, protecting native forests and moving to a more sustainable forestry industry - will ensure the LULUCF sector emissions will reach negative emissions. This will offset emissions in other sectors to meet net zero by 2035.

National Centre for Climate Repair

Climate change has already done enormous damage to our ecosystems and our planet. Without action to repair our climate, the damage risks spiralling out of control. To date, climate policy and research has been understandably focused on slowing and preventing increased emissions. However as we move to net zero, increasing attention will need to be given to identifying actions that can begin to repair the damage to our climate.

A Centre for Climate Repair will research and develop ways to start to repair the climate from large scale drawdown to improved air quality in our cities. The Centre will have a particular focus on how to protect the Antarctic regions under Australia's responsibility, as the collapse of the Antarctic ice sheets, if not prevented, will drive multi-century sea level rise.

SECTION EIGHT: WEATHERING THE COMING STORM - ADAPTING TO AN ALREADY CHANGING CLIMATE

Summary:

- We will bolster our public infrastructure with additional funding to ensure that communities are made safer from the increasingly frequent and severe natural disasters.
- To tackle the rising insurance costs in Queensland and northern New South Wales, a grant program will be established to help retrofit homes so they're flood and cyclone resilient.
- We need to take responsibility for the impacts our inaction on the climate crisis will have on our Pacific neighbours. The Greens will renew and increase Australia's commitment to the Green Climate Fund with \$3 billion in funding from 2022 to 2025.

Munich Re, the insurer of insurance companies, has documented the rise in catastrophic climate events. In the 1980s, such events averaged 292 a year. In the last decade 730 events occurred each year, with a record 980 in 2020.⁴⁶

The first responsibility of any government is to keep its citizens safe. As the residents of Cobargo, Lismore and Ballina would agree, the Morrison Government has failed in that duty. Without Greens in balance of power, Labor will also leave us in harm's way. Australia is more exposed to climate damage than pretty much any other country.

When Brisbane was flooded in 2011, everyday people were asked to pay \$5.6 billion in clean up costs through an increase in the Medicare Levy.⁴⁷ Under our plans, the companies that are profiting from driving the climate crisis will be made to pay to clean up after themselves.

The money raised from ending the suite of handouts that support burning coal, oil and gas is more than enough to cover the costs of creating the hundreds of thousands of jobs needed to achieve a safe climate.

⁴⁶ <https://www.munichre.com/en/risks/natural-disasters-losses-are-trending-upwards.html>

⁴⁷ <https://www.smh.com.au/business/levy-to-pay-for-5-6b-flood-bill-20110127-1a64x.html>

Preparing for Climate Impacts

Our national infrastructure is already failing to cope with a radically changing climate. We have built our cities and regions for a climate that is no longer with us. The government established an Emergency Response Fund in 2019 to invest in infrastructure to keep communities safe. But the government has prioritised earning investment returns for itself over investing in climate exposed communities.

Since its inception, the Fund has earned the government \$836 million dollars,⁴⁸ yet it has only spent \$210 million on disaster recovery and just \$100 million on mitigation infrastructure,⁴⁹ leaving communities like Lismore and Ballina exposed while the government pockets the difference.

The Greens will change these investment restrictions so that \$600m is spent per year until 2026-27, and \$300m per year from 2027-28 on public infrastructure mitigation works. This funding will allow communities to undertake much needed infrastructure upgrades that reduce the devastating impacts of the climate crisis.

Our plan will also push down the cost of insurance premiums as smart public infrastructure reduces the risk faced by properties exposed to specific types of natural disasters. Without taking this action, insurance will become unaffordable for many people according to Australia's regulator of insurance companies, APRA.⁵⁰

Funding Emergency Services

Our emergency services are much bigger than firefighters, ambulances and police. During natural disasters, the ABC brings communities lifesaving information, the Bureau of Meteorology and CSIRO study weather changes and send warnings to give first responders the information they need.

The Greens plan funds hundreds of thousands of jobs to restore the public service, and we will also double the current funding for Emergency Service operations, providing \$5 billion in extra funding allocated to the States. This funding will make sure our Emergency Services have the latest equipment and personnel they need to respond to natural disasters exacerbated by global heating.

⁴⁸ <https://www.finance.gov.au/emergency-response-fund>

⁴⁹ <https://recovery.gov.au/emergency-response-fund>

⁵⁰ <https://www.theguardian.com/australia-news/2021/mar/02/climate-change-could-put-insurance-out-of-reach-for-many-australians>

Retrofitting homes as cyclones move south

As cyclones move south and flood events increase, the Greens will also establish a separate fund to retrofit homes in Australia to be cyclone and flood resilient. Under the current government plan of doing nothing, households will be exposed to rapidly rising insurance prices. Grants of up to \$20,000 (with a 50% co-contribution requirement) will be provided to households in high risk areas to undertake cyclone and flood mitigation works, like battening and house raising. Similar programs in Queensland have seen insurance premiums reduced by an average of 8.63 per cent, saving people money and keeping them safe.⁵¹

Our plan will also push down the cost of insurance premiums, as smart public infrastructure will reduce the risk faced by properties exposed to specific types of natural disasters. Without taking this action, insurance will become unaffordable for many people according to Australia's regulator of insurance companies, APRA.⁵²

Climate Finance and supporting Pacific Nations

The Green Climate Fund was established as part of the Paris Agreement for wealthy nations to help those less fortunate countries bearing the brunt of climate impacts. Countries have committed billions to this fund, however the Australian government has withdrawn funding and have abandoned our obligations to the Pacific Nations community.

Australia must provide climate finance commensurate with our historical and ongoing contribution to the climate crisis. Our Pacific neighbours are paying the heavy price of Australia's refusal to tackle the climate crisis. Communities face rising sea levels, annual destruction caused by tropical storms, the loss of arable land and drinking water, and the enormous social and economic challenges of displacement due to the climate crisis.

The Greens will renew and increase Australia's commitment to the Green Climate Fund with \$3 billion in funding from 2022 to 2025. Our policy will also provide additional climate reparations of \$1.5 billion over the next three years. Importantly, this climate finance is in addition to the aid budget.

⁵¹ https://www.chde.qld.gov.au/_data/assets/pdf_file/0014/6242/flyerhouseholdresilienceprogram.pdf

⁵²

<https://www.theguardian.com/australia-news/2021/mar/02/climate-change-could-put-insurance-out-of-reach-for-many-australians>

APPENDIX A:

The Jobs created by *Powering Past Coal and Gas*

Direct and indirect job creation, 2024-25, by State and Territory

	NATIONAL	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
DIRECT									
Powering past coal with 100% Renewables by 2030	43,000	13,400	11,600	7,700	3,200	4,800	1,000	400	800
Replacing coal and gas exports with a 700% renewables industry	900	300	300	200	100	100	0	0	0
Refurbish our industrial hubs and create a manufacturing renaissance	13,800	4,300	3,700	2,500	1,000	1,500	300	100	300
Saving Australian homes and businesses money by electrification	94,600	29,500	25,500	17,000	7,000	10,500	2,100	1,000	1,700
Climate Repair - Restoring the Land and Carbon Drawdown	5,500	1,500	1,300	1,000	800	600	200	100	0
Weathering the coming storm - Adapting to an already changing climate	4,400	1,400	1,200	800	300	500	100	100	100
Sub Total	162,000	50,000	44,000	29,000	12,000	18,000	4,000	2,000	3,000
INDIRECT									
Powering past coal with 100% Renewables by 2030	200,100	63,700	51,800	40,500	13,800	20,800	4,200	1,900	3,400
Replacing coal and gas exports with a 700% renewables industry	4,300	1,400	1,100	900	300	500	100	0	100
Refurbish our industrial hubs and create a manufacturing renaissance	29,600	9,400	7,700	6,000	2,000	3,100	600	300	500
Saving Australian homes and businesses money by electrification	395,600	125,900	102,300	80,100	27,300	41,200	8,300	3,800	6,700
Climate Repair - Restoring the Land and Carbon Drawdown	11,300	3,000	2,600	2,400	1,500	1,200	300	100	0

Weathering the coming storm - Adapting to an already changing climate	2,500	800	700	500	200	300	100	0	0
Sub Total	643,000	204,000	166,000	130,000	45,000	67,000	14,000	6,000	11,000
TOTAL									
Powering past coal with 100% Renewables by 2030	243,100	77,100	63,400	48,200	17,000	25,600	5,200	2,300	4,200
Replacing coal and gas exports with a 700% renewables industry	5,200	1,700	1,400	1,100	400	600	100	0	100
Refurbish our industrial hubs and create a manufacturing renaissance	43,400	13,700	11,400	8,500	3,000	4,600	900	400	800
Saving Australian homes and businesses money by electrification	490,200	155,400	127,800	97,100	34,300	51,700	10,400	4,800	8,400
Climate Repair - Restoring the Land and Carbon Drawdown	16,800	4,500	3,900	3,400	2,300	1,800	500	200	0
Weathering the coming storm - Adapting to an already changing climate	6,900	2,200	1,900	1,300	500	800	200	100	100
Total	805,000	254,000	210,000	159,000	57,000	85,000	18,000	8,000	14,000

Sources: Parliamentary Budget Office costings, Budget Papers, ABS publications; and academic and industry sources.

APPENDIX B:

Financial implications of *Powering Past Coal and Gas*

Financial implications for measures prepared by the independent Parliamentary Budget Office and relate to the period 2021-22 to 2031-32. Figures presented on a fiscal balance basis.

SECTION	MEASURE	FINANCIAL IMPACTS OVER THIS CRITICAL DECADE (\$M)
Integrity in Government	National Climate Action Taskforce	-\$324
Phasing out coal and gas while looking after coal communities	No New Coal, Oil and Gas	-\$3,822
	Looking after coal communities	-\$19,086
	End Handouts for Coal, Oil and Gas Corporations	\$98,431
Powering past coal with 100% Renewables by 2030	Clean Energy Australia: Publicly Owned Power Generation Company	-\$204
	FutureGrid - Rewiring Australia's Energy System	\$238
	Solar on Schools: Putting solar on public buildings	-\$5,000
	Locally Owned Community Renewables	-\$1,135
Replacing coal and gas exports with a 700% renewables industry	Coal Exports Levy	\$21,725
	Make Gas Exporters Pay Taxes and Royalties	\$92,250
	Phasing out Gas Exports and Retrofitting Gas Terminals for Hydrogen and ammonia	-\$2,289
	Building Clean Energy Export Infrastructure: Restoring ARENA's cut funding	-\$866
Refurbish our industrial hubs and start a manufacturing renaissance	A Green Future for Heavy Industry and Deep Water Ports	-\$4,932

	Manufacturing Renaissance: "Made in Australia" Bank	-\$5,048
	R&D for Aviation and Shipping	-\$100
	Circular Economy	-\$1,272
Saving Australian Homes and Businesses Money	Getting Homes and Businesses off the Gas	-\$19,263
	Powering up Battery Storage for Households and Businesses	-\$11,143
	Getting Electric Vehicles onto the road	-\$17,569
	Affordable and reliable Public Transport	-\$30,402
	Finally Building High Speed Rail	-\$2,500
Climate Repair - Restoring the Land and Carbon Drawdown	A new income stream for farmers	-\$10,800
	Protecting our Forests	-\$148
	Centre for Climate Repair	-\$248
Weathering the coming storm - Adapting to an already changing climate	Preparing for Climate Impacts	-\$7,340
	Funding Emergency Services	-\$4,583
	Retrofitting homes as cyclones move south	-\$7,780
	Climate Finance and Supporting Pacific Nations	-\$4,856
TOTAL IMPROVEMENT TO THE FISCAL BALANCE		\$51,934



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