



Climate Council of Australia

Submission to: 2021-22 Pre-Budget Submissions

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Submission from: Climate Council of Australia Pty Ltd
8 Short Street, Surry Hills, NSW 2010
Tel: 02 9356 8528
Email: info@climatecouncil.org.au

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About the Climate Council

The Climate Council is an independent non-profit organisation funded by donations by the public. Our mission is to provide authoritative, expert advice to the Australian public on climate change.

To find out more about the Climate Council's work, visit www.climatecouncil.org.au.

1. Executive Summary

The Climate Council recommends that the Federal Government prioritise investments that set Australia up for the future in its 2021-22 Budget, supporting economic recovery by investing in initiatives that increase climate and economic resilience and create new clean jobs while substantially reducing greenhouse gas emissions.

In order to achieve this goal, we recommend that the Federal Government:

- Consolidate Australia's comparative advantage in clean energy technologies and build upon the Technology Investment Roadmap by investing in 12 clean policy opportunities to create 76,000 new jobs for Australians, as recommended in the Climate Council's Clean Jobs Plan. This would supercharge Australia's economic recovery, support Australian workers, and tackle climate change at the same time.
- Include a fully-costed response to the Royal Commission into National Natural Disaster Arrangements in the 2021-22 Federal Budget and forward estimates.
- Scale up Australia's contribution of international climate finance to AU\$3 billion per year in government funding and leveraged private finance, in line with Australia's fair share based on economic capabilities and historical responsibility for climate change. In addition, rule out any Australian development assistance, trade promotion, foreign investment or export credit for fossil fuels.

2. Introduction

We thank Treasury and the Minister for Housing and Assistant Treasurer, the Hon Michael Sukkar MP, for the opportunity to be heard on the important matter of priorities for the 2021-22 Federal Budget.

The Climate Council recommends that the Federal Government prioritise investments that set Australia up for the future in its 2021-22 Budget, supporting economic recovery by investing in initiatives that increase climate and economic resilience and create new clean jobs while substantially reducing greenhouse gas emissions.

Our position is based on the understanding that Australia is facing twin crises. 2019-20 was an exceptionally intense period for climate change-fuelled extreme weather, including the Black Summer bushfires, with heavy costs felt around Australia and many communities still doing it tough (Climate Council 2021). Now, many Australians are suffering from the health and economic consequences of COVID-19, with unemployment remaining above pre-pandemic levels (ABS 2021). Economic recovery is top of mind for Australians, and the Federal Government has a crucial role to play in making targeted investments and implementing policies that create win/win/win solutions. This means funding initiatives that create jobs, boost economic growth and tackle long-term challenges such as climate change at the same time. In doing so, it is also crucial that the Federal Government avoid new investments in fossil fuel assets, as they are likely to become stranded assets in coming years and are fundamentally at odds with tackling the climate crisis while providing economic prosperity.

3. Create new clean jobs for Australians

The 2021-22 Budget is an opportunity to consolidate Australia's comparative advantage in clean energy technologies and build upon the Technology Investment Roadmap by investing in 12 clean policy opportunities to create 76,000 new jobs for Australians. This would supercharge Australia's economic recovery, support Australian workers, and tackle climate change at the same time.

As we rebuild our economy from the COVID-19 crisis, the Federal Government should invest in initiatives that set Australia up for the future. This means creating win/win/win solutions that create jobs, boost economic growth, and tackle long-term challenges such as climate change at the same time. As the global transformation to renewables and away from fossil fuels accelerates, Australia has enormous opportunities to create jobs in clean industries that will power our economy into the future.

In July 2020, the Climate Council and independent economics advisory firm AlphaBeta Advisors¹ launched the Clean Jobs Plan – economic modelling that provides a whole-of-economy solution to the economic crisis brought on by COVID-19. It identifies 12 major policy opportunities that would collectively create 76,000 jobs. Job creation would start immediately and continue over a three-year period, with the potential to grow the entire economy in the long term (Climate Council and AlphaBeta 2020).

The analysis focuses on opportunities that are shovel ready and can create jobs quickly, targeting regional Australia and the occupations hit hardest by job losses. Over one third of job openings created by the Clean Jobs Plan would be in administration, with an additional third in construction. In addition, roughly one third of job openings require less than 12 months of re-training, opening employment opportunities to a wide-range of Australian workers (Climate Council and AlphaBeta 2020).

The Plan is highly efficient and focused on maximising the value of public investment. The policy opportunities in the Clean Jobs Plan would create jobs as or more cost-effectively than similar Australian economic recovery programs and offer significant opportunities to leverage private investment in the Australian economy. For example, every dollar of public funding invested in utility-scale renewable energy could unlock an additional \$3 of private co-financing, and investment in developing the renewable hydrogen industry could unlock an additional \$4 of private investment for every dollar of public funding (Climate Council and AlphaBeta 2020).

A strong economy needs a healthy environment. By focusing on clean policy measures, the Federal Government can build modern, resilient electricity systems, develop new industries and restore and protect Australia's unique landscapes. This protects Australians and the economy by taking decisive climate action, while investing in the growth industries of the future.

The Clean Jobs Plan does not identify every job that can be created. Australia's transformation to a clean economy will require a coherent long-term national strategy from

¹ Now part of Accenture.

the Federal Government. Australia has a global competitive advantage in renewable energy. We are the sunniest and one of the windiest countries in the world and have the abundant space and technical expertise necessary to make use of these resources and lead in the clean industries of the future (Garnaut 2019). If we make the right investments now, generations of Australians could work in new clean industries such as clean manufacturing, new economy mining and minerals processing, and renewable hydrogen (Climate Council 2020a). The Clean Jobs Plan outlines an important first step, identifying opportunities that will get Australians back to work fast while boosting economic growth and the urgent task of tackling the climate crisis.

A brief summary of the 12 policy options, including jobs created, investment required, and likely private co-financing is provided below. Full details of all 12 policy opportunities are available in the [Clean Jobs Plan](#), which was also submitted as a supporting document with this submission.

12 policies to secure our recovery and create clean jobs for Australians

1. Delivering secure and reliable energy with community-scale grid systems in regional Australia

Recommendation: Build local energy infrastructure that can generate, store and distribute energy through independent local grids. This can include local solar farms, batteries and microgrid transmission infrastructure funded through existing funding programs, grants and other funding mechanisms.

- 2,000 direct jobs created over three years, requiring \$200 million of public investment.
- An additional \$2.10 of private co-financing could be unlocked for every dollar of public funding.
- 12.4 direct jobs created per \$million.
- Co-benefits include providing energy independence for communities that may need it in times of bushfire or other natural disasters, and lower energy costs for local households and businesses.

2. Developing new export industries with renewable hydrogen

Recommendation: Further support the development of pilot-scale renewable hydrogen production facilities through grants, low-cost loans and other sources of finance.

- 500 direct jobs created over three years, requiring \$30 million of public investment.
- An additional \$4 of private co-financing could be unlocked for every dollar of public funding.
- 16.7 direct jobs created per \$million.
- Co-benefits include positioning Australia as a leader in a new and growing globally competitive industry, and supporting innovation and productivity growth, including through increasing the skills and knowledge of Australian businesses and workers.

3. Delivering cheaper power with utility-scale renewable energy

Recommendation: Provide grants, low-cost loans and other financing for the installation of large-scale wind and solar generation facilities, together with the associated transmission upgrades and battery storage infrastructure.

- 15,000 direct jobs created over three years, requiring \$2.25 billion of public investment.
- An additional \$3 of private co-financing could be unlocked for every dollar of public funding.
- 6.7 direct jobs created per \$million.
- Co-benefits include lower power bills for Australians and the creation of long-standing critical infrastructure.

4. Driving clean technology innovation

Recommendation: Fund research and development into new technologies across industrial sectors, such as manufacturing materials and energy generation, that can help reduce greenhouse gas emissions to zero as soon as possible and aid in the development of climate change adaptation strategies. The Federal Government can directly fund businesses, universities, and other research centres to work on these climate-related challenges.

- 2,000 direct jobs created over three years, requiring \$100 million of public investment.
- An additional \$1.80 of private co-financing could be unlocked for every dollar of public funding.
- 20.0 direct jobs created per \$million.
- Co-benefits include supporting the growth of 'breakthrough' technologies that could drive up productivity growth, create more globally competitive industries in Australia, and reduce emissions.

5. Creating jobs for regional Australians by improving land use and restoring ecosystems

Recommendation: Directly fund or subsidise conservation efforts to increase the ability of forest and wetland ecosystems to serve as carbon sinks. This includes revegetation and amending irrigation systems, as well as restoration efforts such as changing land usage patterns, for example by installing protective fences or walls to prevent degradation.

- 12,000 direct jobs created over three years, requiring \$1.8 billion of public investment.
- An additional \$0.10 of private co-financing could be unlocked for every dollar of public funding.
- 6.7 direct jobs created per \$million.
- Co-benefits include improved health and resilience of natural ecosystems and protection of biodiversity, and improved tourism prospects for certain regions.

6. *More affordable and efficient Australian homes*

Recommendation: Develop a national scheme to improve the energy efficiency of Australian households through a retrofitting program including a combination of smart meters, insulation, heat-pumps, sealing and glazing, and energy-efficient appliances.

- 7,000 direct jobs created over three years, requiring \$890 million of public investment.
- An additional \$1.25 of private co-financing could be unlocked for every dollar of public funding.
- 7.9 direct jobs created per \$million.
- Co-benefits include lower energy bills for Australian households, and homes that are safer and more comfortable in extreme heat and cold weather.

7. *Making government buildings cheaper to run*

Recommendation: Improve the efficiency of government buildings by installing energy-efficient devices and systems. This can include simple steps such as energy-efficient lights and occupancy sensors as well as deeper retrofits such as upgrading ventilation systems to be demand-responsive.

- 8,000 direct jobs created over three years, requiring \$1.5 billion of public investment.
- The projects are assumed to be entirely publicly funded, so no additional private co-financing is included.
- 5.3 direct jobs created per \$million.
- Co-benefits include reduced government energy costs and reduced greenhouse gas emissions.

8. *Busting congestion and building better public and active transport*

Recommendation: Bring forward planned spending on public and active transport to accelerate the construction and improvement of public and active transport infrastructure. This includes electrifying public transport, new train or metro lines, increasing the frequency or capacity of existing services, and building cycleways and walkways.

- 12,000 direct jobs created over three years, requiring \$2.0 billion of public investment.
- An additional \$0.50 of private co-financing could be unlocked for every dollar of public funding.
- 6.0 direct jobs created per \$million.
- Co-benefits include reduced traffic congestion and health benefits such as less exhaust pollution and increased physical activity.

9. *Delivering more choice for drivers*

Recommendation: The Government should install, upgrade and expand the locations of fast-charging stations to incentivise the use of electric vehicles (EVs), including in new residential builds and on major highways to enable long-distance travel.

- 500 direct jobs created over three years, requiring \$40 million of public investment.
- An additional \$2 of private co-financing could be unlocked for every dollar of public funding.
- 12.5 direct jobs created per \$million.
- Co-benefits include increasing consumer choice by removing potential constraints, and reducing transport emissions by supporting the uptake of EVs.

10. *Education and training programs to prepare Australian workers for the clean economy*

Recommendation: Invest in vocational education, workplace training, and other adult re-skilling programs to enable the transition to a clean economy. This includes training in explicit climate or sustainability-related expertise such as energy modelling and renewable energy technologies, as well as in expertise needed to facilitate the transition, such as construction and engineering.

- 1,000 direct jobs created over three years, requiring \$50 million of public investment.
- An additional \$1.80 of private co-financing could be unlocked for every dollar of public funding.
- 20.1 direct jobs created per \$million.
- Co-benefits include enabling emissions reduction initiatives that may otherwise be constrained by skills shortages and supporting workers to participate in growing clean industries.

11. *Practical upgrades to organic waste management*

Recommendation: Introduce or expand the collection of food and garden organic waste, build the processing facilities required to divert this waste from landfill, and conduct surveys and communication to inform the process. The Federal Government can boost local efforts to collect and process household waste more efficiently, including through support for council collection programs.

- 10,000 direct jobs created over three years, requiring \$600 million of public investment.
- An additional \$2.10 of private co-financing could be unlocked for every dollar of public funding.
- 15.5 direct jobs created per \$million.

- Co-benefits include reduced greenhouse gas emissions from landfills and supporting the development of an Australian waste processing industry, which can be a driver of long-term innovation and employment.

12. Cooler, safer suburbs and regional cities

Recommendation: Increase funding to local councils and other organisations to increase tree canopy cover in urban areas, improve the usability of green spaces, and fund urban agriculture projects such as vertical or rooftop gardens.

- 6,000 direct jobs created over three years, requiring \$1.0 billion of public investment.
- The projects are assumed to be entirely publicly funded, so no additional private co-financing is included.
- 6.0 direct jobs created per \$million.
- Co-benefits include reducing the ‘heat island’ effects to make cities and towns more liveable, and reducing the need for heating and cooling.

4. Fund a resilient future

The government should include, as part of the 2021-22 Federal Budget and forward estimates, a fully-costed response to the Royal Commission into National Natural Disaster Arrangements.

With regard to the budgetary measures required to achieve this, the Climate Council endorses the recommendations put forward by Emergency Leaders for Climate Action (ELCA) in their submission to the 2021-22 Federal Budget.

5. Build resilience through international climate finance

Scale up Australia's contribution of international climate finance in the 2021-22 Budget to AU\$3 billion per year in government funding and leveraged private finance, in line with Australia's fair share based on economic capabilities and historical responsibility for climate change. In addition, the Federal Government should follow the UK – President of COP26 – in ruling out any Australian development assistance, trade promotion, foreign investment or export credit for fossil fuels.

Australia is surrounded by some of the most vulnerable countries on Earth to the impacts of climate change. Without stronger global action to rapidly and drastically curb greenhouse gas emissions, alongside greater support to communities with building their resilience to climate change, the impacts upon our region may soon become as costly to Australia as those that strike us directly (Climate Council 2021).

Australia's contribution of international climate finance – that is, support to lower-income countries for meeting the challenges of climate change – is an essential investment in our own future. It serves our national interest by supporting the stability and prosperity of our region and beyond, and can help to develop markets for Australia's future clean exports. Contributing to global efforts to tackle climate change helps to reduce the economic costs that Australia will face as a result of accelerating climate change, covered in the following section. Providing a fair share of such assistance is also a responsibility of Australia and other high-income countries under the Paris Agreement, to which Australia is a signatory.

Australia, along with all parties to the Paris Agreement, agreed that developed countries should extend the goal of jointly providing US\$100 billion per year in international support for climate action until 2025. A new collective target will be agreed prior to 2025, from a floor of US\$100 billion per year (UNFCCC 2015). Based on our economic capabilities and historical responsibility for climate change, Australia should aim to contribute at least 2 percent of the total US\$100 billion per year international goal, equivalent to at least AU\$3 billion per year in government funding and leveraged private finance (Jotzo et al. 2011)². This is a small fraction of the economic costs that Australia will face if it does not support urgent steps to rapidly reduce greenhouse gas emissions both within Australia and abroad. Notably, the Paris Agreement also calls for *all* financial flows to be made 'consistent with a pathway towards low greenhouse gas emissions and climate-resilient development' (article 2.1c).

While it has received comparatively little attention in Australian domestic political debate, the provision of adequate international climate finance is a critical component in ongoing international negotiations under the Paris Agreement. This makes this year and the lead up to COP26 in Glasgow an important year to be renewing and stepping up Australia's contribution. The recent announcement that Australia has committed to providing AU\$1.5 billion in international climate finance over 2021-2025 is a positive first step,

² This AU\$3 billion figure is based on analysis by Jotzo et al. (2011) and consistent with a range of other efforts to determine a fair share for Australia in accordance with the equity principles of the UNFCCC. We acknowledge that the US\$100 billion is to be comprised of both public and private finance, but that sufficient *public* funding remains critical in meeting urgent adaptation needs worldwide.

representing a 50 percent increase in Australia's contribution over the previous five years (SMH 2021). However, this still falls considerably short of Australia's fair share of the ongoing commitment among developed countries to collectively mobilise US\$100 billion per year.

In this light, and consistent with Australia's national interests and international undertakings, the Climate Council recommends that the Federal Government, in its 2021-22 Budget and forward estimates, include:

1. A scale-up in Australia's overall contribution of international climate finance from the recently committed level of approximately AU\$300 million per year to AU\$3 billion per year in government funding and leveraged private finance.
2. A new contribution to the Green Climate Fund, as part of Australia's overall contribution of international climate finance.

In addition, and consistent with a recent commitment from the UK, COP26 President, the Australian Government should ensure that:

3. All Australian official development assistance, foreign investment, export credit, and trade promotion is compatible with the goals of the Paris Agreement, including limiting warming to well below 2°C.
4. No Australian official development assistance, foreign investment, export credit or trade promotion supports fossil fuels.

Australia is surrounded by many countries that are acutely vulnerable to climate impacts. Those unfolding regional impacts may soon become as damaging to Australia as those that strike us directly. The Climate Council encourages the government to maintain a strong focus on the needs and priorities of the Pacific in its support for international climate action, and that support remain balanced between investments in adaptation and mitigation. The Climate Council also urges more comprehensive and transparent reporting on Australia's international climate finance contributions in the Federal Budget. This includes line items summarising Australia's overall contribution over the past year and intended overall contribution over 2021-22 and the forward estimates.

6. Failure to prioritise urgent climate action will hit Australia's budget hard

Australia's climate has warmed on average by 1.44°C since 1910, with most warming occurring since 1950 and every decade since then being warmer than the decades before (BoM and CSIRO 2020). As a result of accelerating climate change, climate records continue to tumble in Australia.

- The mean temperature for the 10 years from 2011 to 2020 was the highest on record, at 0.94 °C above average. This is 0.33 °C warmer than the previous 10 years, 2001–2010.
- All years since 2013 have been among the ten warmest on record for Australia. Of the ten warmest years, only one (1998) occurred before 2005 (BoM 2021).
- The frequency of extreme heat events is increasing. Cool season rainfall has also been declining across mainland southern Australia over recent decades. In the southwest of Australia, May to July rainfall has decreased by around 20 percent since 1970. In the southeast, April-October rainfall has decreased by around 12 percent since the late 1990s.
- These trends have contributed to an increase in the length of fire seasons and to the severity of dangerous fire weather across large parts of the continent (BoM and CSIRO 2020).

Inaction on climate change has devastating consequences for Australian livelihoods and the Australian economy

In 2019-20 Australia experienced unprecedented, devastating bushfires, bringing severe health, social, and economic consequences across the country.

- Eight million Australians were affected and thirty-three lives were lost to the fires (Commonwealth of Australia 2020).
- Around 429 people died of conditions worsened by toxic smoke inhalation. This is in addition to 3,230 hospital admissions for cardiovascular and respiratory disorders and 1,523 emergency attendances for asthma. Smoke-related health costs of the Black Summer bushfires are estimated at \$1.95 billion (Johnson et al. 2020).
- Over 3,000 homes were lost and over 24 million hectares were burnt. The national financial impact of the fires is estimated to be in excess of \$10 billion (Commonwealth of Australia 2020).
- An estimated three billion vertebrate animals were either killed or displaced (WWF 2020).
- 80 percent of the Blue Mountains World Heritage Area and 50 percent of Gondwanan rainforests were burnt (Commonwealth of Australia 2020).

In 2020, the Great Barrier Reef also suffered its third major bleaching event in five years, resulting collectively in a loss of 50 percent of hard coral cover (Corals CoE 2020). The Great Barrier Reef supports a huge variety of marine life, an estimated 69,000 Australian jobs, and

provides \$7 billion to the Australian economy every year. Climate change is the greatest threat to the Great Barrier Reef (Deloitte Access Economics 2013; Jacobs 2016).

There are few forces affecting the Australian economy that can match the scale, persistence and systemic risk associated with climate change. Australia's financial regulators have called for action to deal with climate change, with the Reserve Bank of Australia, the Australian Prudential Regulation Authority and the Australian Securities and Investment Commission citing risks posed by climate change as a central concern for the economy and financial stability (APRA 2019; ASIC 2019; Debelle 2019). As the Deputy Governor of the Reserve Bank of Australia noted, the risks that climate change poses to the Australian economy are 'first order' and have knock-on implications for macroeconomic policy (Debelle 2019).

Direct macroeconomic shocks from climate change include reduced agricultural yields, damage to property and infrastructure, and commodity price hikes. Such shocks are likely to lead to painful market corrections and could trigger serious financial instability in Australia and the region.

The property market is expected to lose \$571 billion in value by 2030 due to climate change and extreme weather. One in every 19 property owners face the prospect of insurance premiums that will be effectively unaffordable by 2030, defined as costing 1 percent or more of the property value per year. The property market will only continue to lose value in the following decades if greenhouse gas emissions remain high (Climate Council 2019).

On current trends, the accumulated loss of wealth due to reduced agricultural productivity and labour productivity as a result of climate change is projected to exceed \$19 billion by 2030, \$211 billion by 2050, and \$4 trillion by 2100. By 2050, climate change is projected to halve the irrigated agricultural output of the Murray-Darling Basin region. The region currently accounts for 50 percent of Australia's irrigated agricultural output by value, or about \$7.2 billion per year (Climate Council 2019).

Over the next 30 years, if current emissions policies are maintained, increasing economic damages from climate change will cost the Australian economy at least \$1.89 trillion (Kompas et al. 2018). Over the next 50 years, unchecked climate change will reduce Australia's economic growth by 3 percent per year and cost around 310,000 jobs per year. By 2070, this economic cost is estimated to double, shrinking Australia's GDP by 6 percent – a \$3.4 trillion loss in GDP (present value terms) (Deloitte Access Economics 2020).

Climate change is causing increased health costs in Australia

The health and social costs of climate change are a significant economic burden. Reduced productivity due to extreme heat already costs the Australian economy over \$8 billion annually (Horsburgh et al. 2017). Fossil fuels drive climate change, but the burning of fossil fuels itself also comes with severe health and economic consequences. Air pollution from coal-fired electricity generation is responsible for hundreds of thousands of deaths globally each year. In Australia, the health impacts of coal-fired power generation are estimated to cost \$2.6 billion annually (Biegler 2009; Burt et al. 2013). The annual health cost of transport pollution in Australian capital cities is estimated at around \$3.3 billion (Amoako et al. 2003).

The shift to renewably-powered energy and transport could save the Australian community up to \$6 billion annually in avoided health costs (Biegler 2009).

In the context of rising health costs, England's National Health Service (NHS) has reduced its greenhouse gas emissions by 18.5 percent between 2007 and 2017 and has a target of net zero emissions by 2040 (NHS 2018; NHS 2020). The Sustainable Development Unit (SDU) has calculated that the cumulative savings from energy measures implemented in England since 2007 alone is roughly £1.85 billion (AUD 3.26 billion). This is in addition to environmental and health benefits such as reduced air pollution. Savings on energy, waste, water and fuel costs have meant that NHS organisations, supported by the SDU, have ensured that an additional £190 million (AUD 335 million) has been available for front line care each year since 2007 (SDU 2016). It is estimated that the NHS will save a further £3 billion (AUD 5.3 billion) over the next three decades by completing a £50 million (AUD 88 million) LED lighting replacement programme (NHS 2020).

Following the NHS net zero emissions announcement, Australian health groups have called for a net-zero target for healthcare in Australia (CAHA 2020a). This was reflected in an editorial in the Medical Journal of Australia (see Talley 2021). Doctors for the Environment Australia also released a pathway report for net zero emissions healthcare (DEA 2020). Climate change mitigation strategies can have potentially large public health benefits and health cost savings, which may substantially offset the cost of the mitigation action (CAHA 2020b). For example, in 2020 alone, NSW Health saved around \$10 million from energy efficiency projects. Cumulatively, from 2012-2020, NSW Health saved approximately \$44 million from energy efficiency projects (NSW Government 2021). Responding to the COVID-19 health emergency has been costly. The Federal Government and sub-national jurisdictions have an opportunity to benefit from large savings by implementing a decarbonisation strategy for the health sector, similar to the one in England.

COVID-19 is fundamentally reshaping the world as we know it, taking a huge toll on human health and the economy. While the response has not been perfect, Australia has so far managed this crisis far better than many comparable countries. Federal, state and territory governments have relied on expert, evidence-based advice to lead their response to the COVID-19 crisis. This crisis is far from over. But another, more long-term crisis remains an urgent threat to humanity: climate change.

Our past emissions and failure to tackle dangerous climate change has locked us into costly climate impacts, similar to the deadly and destructive Black Summer of bushfires, drought and extreme heat (Climate Council 2021). Both climate adaptation and mitigation are now necessary. The issue of climate adaptation and resilience is addressed in the Emergency Leaders for Climate Action (ELCA) pre-budget submission, which the Climate Council endorses. This Climate Council submission focuses largely on the budgetary costs and benefits of climate mitigation. Australia simply cannot adapt to a world that is 3°C or 4°C hotter – which is where we are heading – unless we take decisive measures to drive down our emissions today. Without scientifically robust near-term greenhouse gas emission reduction targets, it will be much more difficult to achieve net zero emissions. Failure to act will cost us dearly.

Long-term prosperity lies in the transition to renewable energy

Emissions from within Australia, and from our coal, oil and gas exports that are burnt elsewhere, have contributed substantially to the climate crisis. In order to tackle climate change, there can be no new or expanded fossil fuel developments. This means no new or expanded coal, oil or gas, no matter how big or small the project, and no matter whether they are for domestic use or export. In addition, subsidies to the fossil fuel industry must end, and Australia's existing fossil fuel facilities must be phased out over the next two decades. The solution is clear: We must move away from fossil fuels entirely.

This includes moving away from gas, despite the current preoccupation with the role of gas in Australia's energy network. Australia has more than enough gas infrastructure – both from a supply and a demand perspective – to meet its gas needs, now and in the future. The role of gas in the Australian energy system will decline over the next two decades, with these declines being most pronounced in the National Electricity Market (AEMO 2020).

Australia does not need more gas to meet its needs. Gas is a polluting and expensive source of energy. The creation of an east coast gas export industry means that Australia is now exposed to the increasingly volatile international market for gas (Climate Council 2020b). This has led to both record high prices as well as unprecedented price collapses, which are only partly explained by COVID-19 (Climate Council 2020c). Yet another spike in the gas price has been felt in January 2021, as demand in China and Southeast Asia drove up the price for Australian gas users (AFR 2021).

Gas is a shaky foundation on which to build an economic recovery. Further investment in gas cannot deliver the stable, long term jobs required to rebuild Australian prosperity for generations to come. Reinvigorating Australian manufacturing and reducing power bills for Australian households can be only achieved by moving beyond gas and investing in renewable energy, storage, electrification and energy efficiency (Climate Council 2020c).

The transformation, both domestically and in our exports, away from fossil fuels is important for the strength of our economy and ensuring Australian competitiveness into the future. Global momentum towards decarbonisation is accelerating as the world – including many of Australia's key trading partners – shifts away from fossil fuels (Investor Group on Climate Change 2020). President Biden is already demonstrating that strong action on climate change is a priority of the new US Administration, including re-joining the Paris Agreement on his first day in office and issuing a sweeping executive order soon after on 'tackling the climate crisis at home and abroad' (The White House 2021). The accelerating global transition away from fossil fuels is now beyond dispute. Even prior to the global developments above, the International Energy Agency reported that global coal demand was experiencing a 'structural fall'. This comes as renewable energy generation experiences rapid growth around the world, with solar now providing 'some of the lowest cost electricity ever seen' (IEA 2020).

As we rebuild our economy from the COVID-19 crisis, Australia has enormous opportunities to invest in climate and economic resilience and create new clean jobs across the economy (Climate Council and AlphaBeta 2020). Australia has a global competitive advantage in renewable energy and could become a leader in industries such as clean manufacturing,

new economy mining and minerals processing, and renewable hydrogen (Climate Council 2020a). If we make the right investments now, generations of Australians could work in these new clean industries of the future.

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