



Climate Council of Australia

Submission to: Climate Change (National Framework for Adaptation and Mitigation) Bill 2020 and Climate Change (National Framework for Adaptation and Mitigation) (Consequential and Transitional Provisions) Bill 2020

Addressed to: The House Standing Committee on the Environment and Energy
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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.

Scope of Submission

The Climate Council thanks the House Standing Committee on the Environment and Energy for the opportunity to make a submission to the 'Climate Change (National Framework for Adaptation and Mitigation) Bill 2020 and Climate Change (National Framework for Adaptation and Mitigation) (Consequential and Transitional Provisions) Bill 2020'.

Recommendations

1. The rest of the World is moving. Australia's major trading partners - China, Japan, South Korea, the UK, and the European Union - have set net zero emission targets, and the United States of America is primed. **We welcome the proposed *Climate Change (Adaptation and Mitigation) Bill 2020* provision of ratcheting up the target. The Australian Government must adopt a net zero policy aligned with science and the global climate context. This means setting a target of net zero emissions *well before 2050*, substantially strengthening Australia's commitments to 2030, and a robust process for setting regular, science-based emissions budgets thereafter.**
2. Similar to the UK's Climate Change Committee, a newly established Australian **Climate Change Commission must be independent, evidence-based and aligned with science.** The Commission must have the resources and complete backing of the Federal Government to ensure that it fulfils its mandate of ensuring accountable and transparent plans to manage the climate challenge.
3. **The proposed Bill's provisions for national risk assessments and adaptation plans are welcome. Strong climate mitigation and adaptation policies are essential from all levels of government, including the Federal Government, State and Territory Governments and local councils.** More substantial action is required to reduce Australia's greenhouse gas emissions, including accelerating the transition to renewable energy and storage technologies, non-polluting transport, infrastructure, food production, banning of any new fossil fuel projects, removing fossil fuel subsidies and the phasing out of existing projects over the next few decades.
4. Regarding the 'Principle of Informed decision making' and use of 'best available public reports', the Bill rightly acknowledges the role of major science agencies and institutions providing best available science. **Decisions should also be informed by peer reviewed papers and reports from academia and relevant climate organisations within the NGO community, including the Climate Council of Australia.**

Supporting Analysis

Australia's climate has warmed on average by around 1.4°C since 1910, with most warming occurring since 1950 and every decade since then being warmer than the ones before (BoM and CSIRO 2020). Australia's hottest year on record was 2019, and nine of the ten hottest years on record have occurred since 2005 (BoM 2020). The frequency of extreme heat events is increasing (Figure 1). 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 and 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).

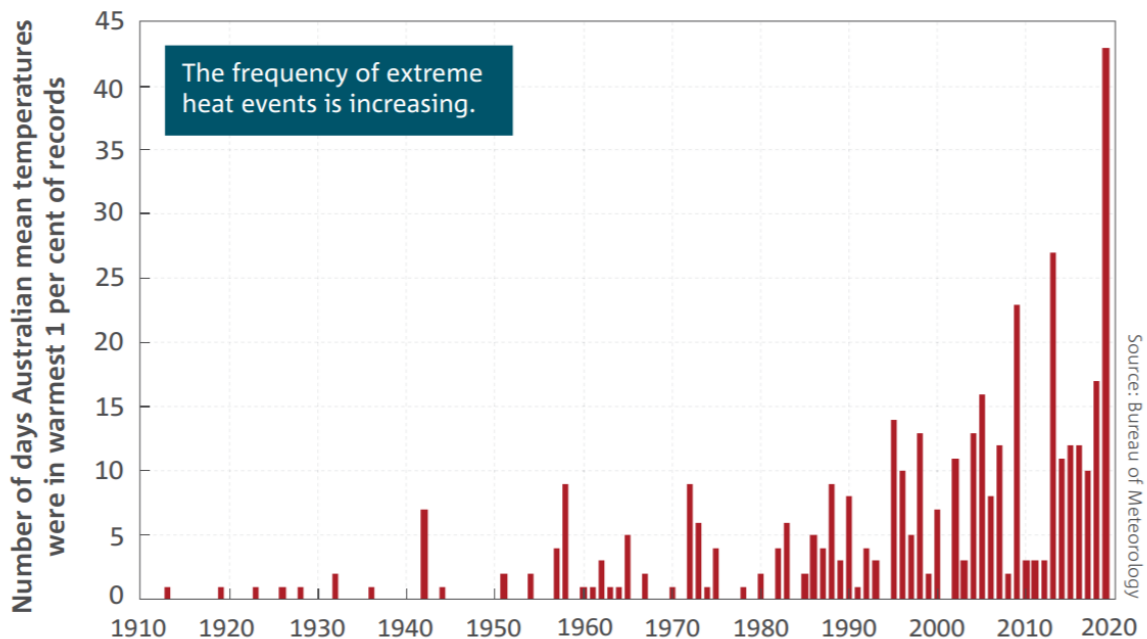


Figure 1: Number of days each year where the Australian area-averaged daily mean temperature for each month is extreme. Extreme daily mean temperatures are the warmest 1 per cent of days for each month, calculated for the period from 1910 to 2019 (Source: BoM and CSIRO 2020).

Political inaction has brought climate change to our door, making Australia’s severe weather catastrophically more extreme. Australia is unprepared for worsening extreme climate events and the Federal Government is unwilling to admit that much more mitigation action is needed. Australia's climate record is woefully inadequate and ranks among the worst of G20 nations (Climate Transparency 2020). In 2019/20 Australia experienced unprecedented, devastating bushfires. Eight million Australians were affected, thirty-three lives were lost to the fires (Commonwealth of Australia 2020), and around 429 people died of conditions worsened by toxic smoke inhalation (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). The Great Barrier Reef this year suffered its third major bleaching event in five years, resulting collectively in a loss of 50% hard coral cover (Corals CoE 2020). Climate change is the greatest threat to the Great Barrier Reef which supports a huge variety of marine life, an estimated 69,000 Australian jobs (Deloitte Access Economics 2013), and provides \$7 billion to the Australian economy every year (Jacobs 2016).

Emissions from within Australia, and from our coal, oil and gas exports that are burnt elsewhere, have both contributed substantially to the climate crisis. To deal with climate change, ALL new fossil fuel developments (no matter if they are coal, oil or gas; no matter how big or small; and no matter whether they are for domestic use or export) must not be

commenced, fossil fuel subsidies must be ceased and existing fossil fuel facilities must be phased out over the next two decades.

The Federal Government must work alongside the states and territories to set in place measures to protect Australians from worsening climate extremes. We need to tackle the root cause of the problem – climate change, driven by the burning of coal, oil and gas. We have the solutions at our disposal and Australia has enormous potential to benefit greatly from transitioning to renewable energy and a net zero emissions pathway, sooner rather than later.

The latest State of the Climate report by the Bureau of Meteorology and CSIRO clearly articulates the risks of climate change continuing unabated (BoM and CSIRO 2020; Figure 2). Australia is projected to see:

- Continued increases in air temperatures, more heat extremes, and fewer cold extremes.
- Continued decrease in cool season rainfall across many regions of southern and eastern Australia, likely leading to more time in drought, and more intense, short duration heavy rainfall events.
- A consequential increase in the number of dangerous fire weather days and a longer fire season for southern and eastern Australia.
- Further sea level rise and continued warming and acidification of the oceans around the continent.
- Increased and longer-lasting marine heatwaves that will affect marine environments such as kelp forests, and raise the likelihood of more frequent and severe bleaching events in coral reefs, including the Great Barrier and Ningaloo reefs.
- Fewer tropical cyclones, but a greater proportion projected to be of high intensity, with large variations from year to year.

The importance of the *Climate Change (Adaptation and Mitigation) Bill 2020* is illustrated by Figure 2, showing how higher ongoing emissions of greenhouse gases will lead to greater warming and associated impacts, while reducing emissions will lead to less warming and fewer impacts.

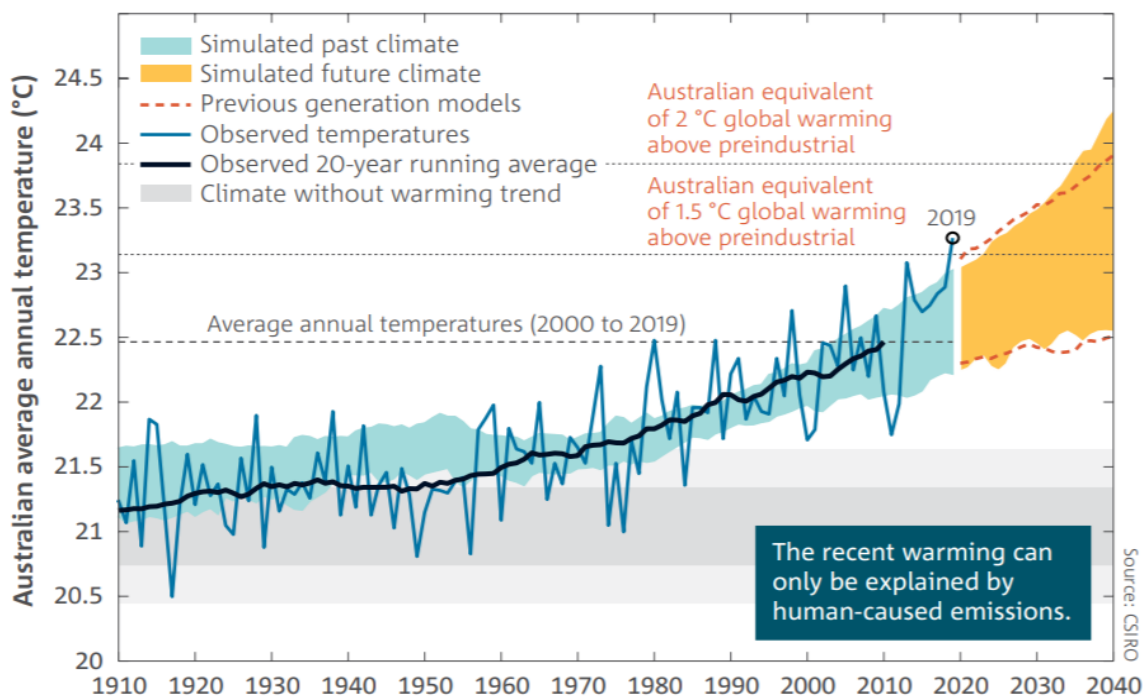


Figure 2: Australian average annual temperature observed and simulated from global climate models. Past and future bands show the range of 20-year running average of new generation climate model results, dashed lines show the equivalent from the previous generation of global climate models. Climate without warming trend shows both an inner and an outer band which are one and two standard deviations, respectively, from the 1850–1900 average, i.e. prior to the rapid growth in greenhouse gas emissions from human activities. The fine black dashed lines show the Australian equivalent of the global warming thresholds 1.5°C and 2°C above the pre-industrial baseline period 1850–1900, equating to warming levels of around +2.1°C and +2.8°C respectively, based on the observed ratio of Australian to global temperature of around 1.4°C. Source: BoM and CSIRO (2020).

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 recently made a call 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. 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, including reduced agricultural yields, damage to property and infrastructure and commodity price hikes, 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, and will continue to lose value in the coming decades if emissions remain high. One in every 19 property owners face the prospect of insurance premiums that will be effectively unaffordable by 2030 (costing 1% or more of the property

value per year). 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, which currently accounts for 50% of Australia's irrigated agricultural output by value (about \$7.2 billion per year) (Climate Council 2019). Over the next 30 years, increasing economic damages from climate change will cost the Australian economy at least \$1.89 trillion, if current emissions policies are maintained (Kompas et al. 2020). Over the next 50 years, unchecked climate change will reduce Australia's economic growth by 3% 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% – a \$3.4 trillion loss in GDP (present value terms) (Deloitte Access Economics 2020).

COVID-19 is fundamentally reshaping the world we know, taking a horrendous 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 crisis. This crisis is far from over. But another, more long-term crisis remains an urgent threat to humanity: climate change.

The problem is clear: the continued burning of coal, oil, and gas is driving climate change. We need to move away from fossil fuels entirely. As we rebuild our economy from the COVID-19 crisis, Australia has enormous opportunities to create jobs in renewable energy and the clean industries it could power. Australia could become a global leader in the clean industries of the future, with generations of Australians working in industries such as clean manufacturing, mining, minerals processing, and hydrogen made from renewables (Climate Council and AlphaBeta 2020).

The *Climate Change (Adaptation and Mitigation) Bill 2020*, proposed by Ms. Zali Steggall MP, offers a practical and comprehensive framework for Australia to lead on the challenge of climate change. This Bill shares structural similarity with other climate change laws, including the United Kingdom's *Climate Change Act (2008)*, New Zealand's *Climate Change Response (Zero Carbon) Amendment Act (2019)* as well as the German *Climate Action Law (2019)*. For those countries, a comprehensive framework law is an essential tool to coordinate and advance climate action.

Importantly, the bill allows for the net zero target to be strengthened (i.e. the date brought forward), in line with changes in factors relevant to the target, including the best available climate science, progress in international action, and equity considerations. The Climate Council believes science already compels a strengthening of this target, as illustrated by Figure 3, and recommends that the date for net zero emissions initially be set for 2040, with an interim target of reducing emissions by 50% by 2030.

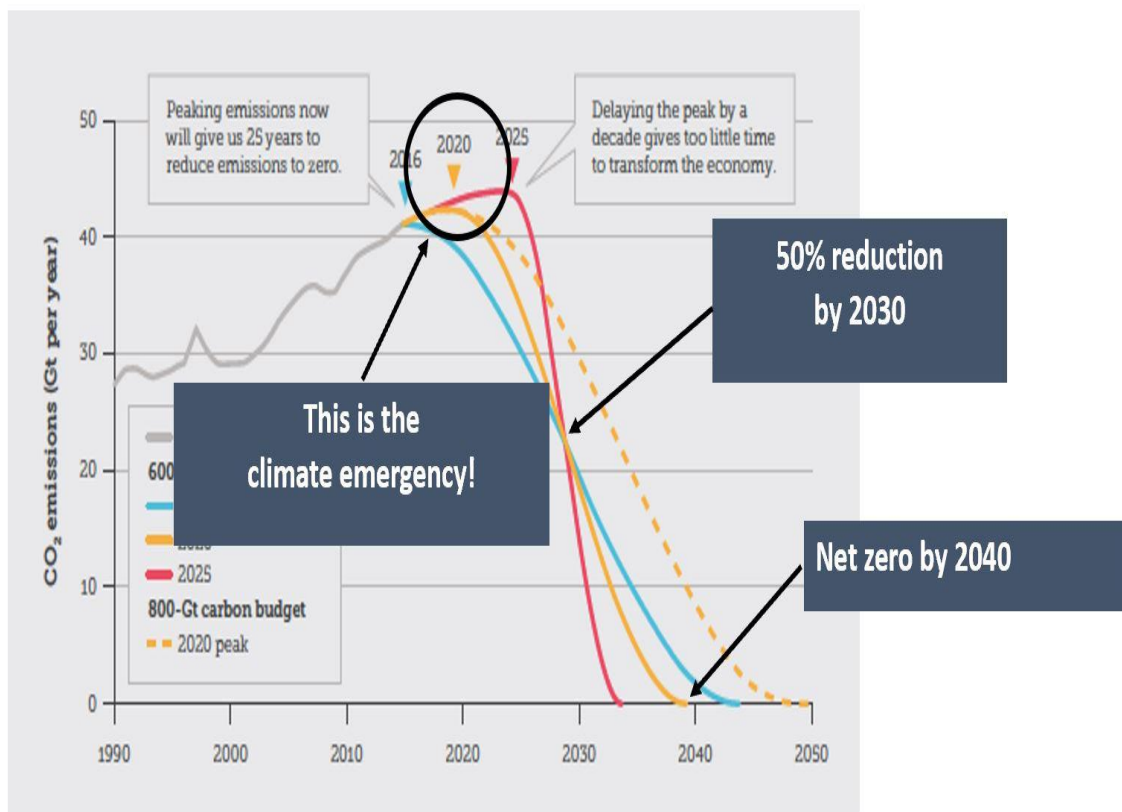


Figure 3: To meet the carbon budget for ‘well below 2°C’, the upper Paris target, emissions must be halved by 2030 and be eliminated by 2040. Source: Adapted from Figueres et al. 2017.

Australians are paying the price of governments’ failure to act on decades of scientific warnings about climate change and the escalating threats to our well-being, economy, and natural environment. The proposed bill offers an opportunity for the Federal Parliament to take a tangible, effective step to tackle climate change. The bushfire crisis showed us just how catastrophic climate change is for Australia and how desperately we need a breakthrough.

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