CLIMATE COUNCIL

CLIMATE CUTS, COVER-UPS AND CENSORSHIP

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Climate cuts, cover-ups and censorship.

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Key Findings

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The Climate Council rates the Federal Government's climate performance over the past five-years an "F" for failing to act and for its attacks on science.

- The Government's tenure has been characterised by slashing climate science funding, cutting effective climate change programs, rejecting advice from expert domestic and international bodies, misleading claims from Federal Ministers, a lack of any effective climate programs, and consistently covering up poor performance.
- Deep funding cuts and job losses at the CSIRO have weakened Australia's climate science capability. As a result, Australia is unprepared to cope with the impacts of climate change.
- Effective programs have been abolished or scaled back, for instance, half a billion dollars was cut from the Australian Renewable Energy Agency, while the Renewable Energy Target was slashed.

2

The Federal Government has covered up poor performance with misleading claims, dubious accounting and censorship.

- Greenhouse gas emissions have risen for four years running. Australia is unlikely to meet its 2030 emissions reduction target according to the government's own department. Regardless, senior ministers continue to falsely claim that emissions are going down and targets will be met.
- In 2016, the Federal Government censored a UN report about climate change and World Heritage sites, asking the authors to remove any reference to Australian sites.
- The Federal Government has consistently delayed releasing information on Australia's greenhouse gas emissions, often publishing data just before Christmas when it faces less scrutiny.
- The government has used discredited accounting methods, for instance including land-use emissions or Kyoto "carryover credits", which makes its record look better than reality.

3

The government's lack of climate change action is the defining leadership failure of the past decade. We have not tackled climate change, the consequences are with us, and we must work very quickly to prevent catastrophic consequences.

- Delaying action has not made the problem go away. It has just shortened the time we have left to reduce emissions and made it more challenging to do so. The Federal Government has squandered its tenure and that will cost us dearly.
- Australia has missed many opportunities to reduce greenhouse gas emissions and transition our economy in the cheapest, most gradual and effective ways possible.
- Australians are on the frontline of worsening extreme weather. Heatwaves have become hotter and last longer, droughts, intense rainfall and dangerous bushfire conditions have become more severe and now test the limits of our coping capacity. We must now address the accelerating consequences of climate change and we are unprepared.
- As Australians experience escalating consequences into the future they will likely view this period of missed opportunities and failed leadership with deep dismay.

4

Australia's next government must adopt credible climate policy and a transparent and accurate approach to reporting and tracking Australia's climate performance to ensure the public can appropriately evaluate its performance.

- The Federal Government needs to urgently adopt credible climate policy to help protect Australians from the rapidly escalating risks of climate change.
- The Climate Council has established a 'Charter of Integrity' for the Federal Government to use as a benchmark to track and monitor climate performance, specifically around issues of accountability, transparency, timeliness and accuracy.

1. Introduction

This report provides a detailed overview of the Australian government's approach to climate change since the election of the Liberal-National Coalition government in 2013. The period is characterised by slashing climate science funding, cutting effective climate change programs, rejecting the expert advice of national and international bodies, senior ministers making publicly misleading claims, a lack of *credible climate policy,* and consistently covering up poor performance. This is the defining policy and leadership failure of the last decade.

Emissions have risen year after year under this government.

After the Abbott Government came to power in 2013, there was a concerted effort to cut or scale back climate change initiatives that were working. The Renewable Energy Target was scaled back, while the Carbon Pricing Mechanism and the Energy Efficiency Opportunities program were cut entirely. Half a billion dollars was cut from the Australian Renewable Energy Agency (ARENA), and the Clean Energy Finance Corporation (CEFC) had funds redirected. Together these programs act to reduce emissions and increase investment in renewable energy, energy efficiency and new technologies. While the CEFC and ARENA survived repeated attempts to abolish them, they could have been more effective with their original budgets and remit. Effective programs were never replaced with credible alternatives. The consequences are clear: emissions have risen year after year.

The government's lack of climate change action is the defining leadership failure of the last decade.

Numerous effective climate programs have been abolished.

Recent government data shows that greenhouse gas emissions from fossil fuels are now at a record high and are projected to continue to rise to 2030. International bodies such as the United Nations Environment Programme (UNEP 2018) and the Organisation for Economic Co-operation and Development (OECD 2019) are questioning Australia's performance on tackling climate change and our ability to meet our 2030 emissions reduction target.

The Liberal-National Government has set a weak 2030 emissions reduction target and claimed repeatedly that Australia is on track to meet it. This is false and misleading as evidenced by the government's own data. The claims often rely on dubious accounting methods, such as claiming "carryover credits" from the Kyoto Protocol period. The government claims emissions are going down, often referring to one sector or one quarter, when the whole picture is of total emissions rising consistently over the government's tenure. The Federal Government has also misled the Australian public about the capabilities of electric vehicles, undermining a solution to one of Australia's largest emitters, the transport sector. These are just some examples from a range of misleading claims advanced by senior members of the government detailed in this report.

The Federal Government has repeatedly released greenhouse gas emissions data when it is unlikely to draw significant attention, for instance, during football finals or at Christmas. The government has also presented the data in ways that obscure the real story. One of the worst examples of withholding information from the public was the censorship of a United Nations Educational, Scientific and Cultural Organization (UNESCO) report drawing attention to the impact of climate change on Australia's vulnerable world heritage sites. References to the Great Barrier Reef, Kakadu and the Tasmanian world heritage areas were removed from the report despite the international authority concluding that they are heavily affected by climate change.

Cuts to climate programs have also coincided with other research funding cuts to the CSIRO, leading directly to the drastic reduction of the organisation's climate research capability. This research underpins our understanding of climate impacts and growing risks. The Climate Commission was abolished as the first act of the Abbott Government while the Climate Change Authority had its budget slashed. Collectively, these cuts eroded the ability of the climate science community to provide cutting-edge information on climate trends, future projections, impacts, risks and solutions. As a result, Australia is less prepared to cope with the impacts of climate change. Expert scientific advice has been either explicitly rejected by government ministers, or implicitly rejected through a lack of policy to respond to the climate crisis.

False and misleading claims have been made repeatedly by senior members of the government.

Expert scientific advice has been ignored or rejected putting Australian lives, the economy and the environment at risk.

Australians are on the frontline of worsening extreme weather as the climate is changing. Heatwaves have become hotter and last longer, droughts, intense rainfall and dangerous bushfire conditions have become more severe and now test the limits of our coping capacity. Australia has just sweltered through its hottest summer on record, part of a long-term warming trend with increasingly damaging consequences.

Without action to limit global temperature rise, intensifying climate change escalates risks for Australia. More extreme heat is certain. Southern and eastern Australia will experience more dangerous fire weather. Extreme rainfall will likely become even more intense (Figure 1). Time in drought is projected to increase in southern Australia. Coastal flooding is very likely to increase as sea-level rise accelerates.

In 2011 the Climate Commission described this decade as the "Critical Decade" for action on climate change. The Commission wrote:

> *"Decisions we make from now to 2020 will determine the severity of climate change our children and grandchildren experience. Without strong and rapid action there is a risk climate change will undermine society's prosperity, health, stability and way of life."*
> (Climate Commission 2011)

Figure 1: Flooding in Townsville, 4 February 2019. If climate change continues unabated then extreme rainfall will likely become even more intense, which in turn increases the risk of severe flooding events.

Delaying action has not made the problem go away. It has increased the risks for Australians.

Tackling climate change requires rapidly and deeply reducing greenhouse gas emissions produced from the burning of fossil fuels (coal, oil and gas) and land clearing. Delaying action has not made the problem go away. It has just shortened the time we have left to reduce emissions and made it more challenging to do so. Now that the Critical Decade is drawing to a close, it is clear that Australia has missed many opportunities to reduce emissions and transition our economy in the cheapest, most gradual and effective ways possible.

Australia lags far behind other countries on a range of solutions taking off around the world, like transitioning our energy system to more decentralised renewable energy and our transport fleet to more electric vehicles and public transport. There are missed opportunities from a lack of industry certainty to drive greater investment. This is the ongoing legacy of five years of consistent policy failure.

Fortunately, state and local government policy, business and community activities, as well as changed economic conditions, have been driving a range of solutions to tackle climate change. However, this has not been enough to compensate for a lack of national action.

As the Critical Decade draws to an end, it's clear the Federal Government has squandered its time in office and that this will cost us dearly. We must now address the accelerating consequences that are already with us and we are grossly unprepared.

In the years ahead Australians will increasingly experience the consequences of a changed climate, from worsening fires and floods to encroaching seas in our coastal towns and cities. In the future, we can only predict that Australians will view this period of missed opportunities and failed leadership with deep dismay.

This report takes stock of the Federal Government's track record on climate change over the past five years and introduces the concept of a 'Charter of Integrity'. This Charter will be used by the Climate Council to judge future governments with the objective of making them more accountable than the current administration. Credible climate action should be based on the same evidence-based science that is motivating other countries to reduce their emissions. It should underpin all Australian national climate policy.

Federal Government climate inaction and missed opportunities will cost us dearly.

Figure 2: A timeline of climate censorship, misinformation, funding and program cuts.

CLIMATE CUTS, COVER-UPS & CENSORSHIP

2013

SEPTEMBER
Federal Election: Liberal-National Coalition Government elected, Tony Abbott becomes Prime Minister

SEPTEMBER
Federal Government abolishes the Climate Commission

SEPTEMBER
Climate Council re-launches as an independent, community funded organisation

NOVEMBER
Federal Government introduces legislation to abolish the Carbon Pricing Mechanism, the Climate Change Authority (CCA) and the Clean Energy Finance Corporation (CEFC)

2014

MAY
Federal Government cuts funding to CSIRO, CCA and the Australian Renewable Energy Agency (ARENA) in 2014-15 budget

JUNE
Federal Government closes the Energy Efficiency Opportunities program

JUNE / JULY
Federal Government abolishes the Carbon Pricing Mechanism. The Senate supports retaining the CCA and CEFC

AUGUST
Warburton Renewable Energy Target (RET) review recommends reducing or delaying the targets, and repealing elements of the scheme

OCTOBER
Federal Government proposes to reduce the RET by 37% (from 41,000GWh by 2020 to 26,000GWh)

DECEMBER
Federal Government releases quarterly emissions data on Christmas Eve (6 months late)

2015

APRIL
Federal Government announces $4 million for Bjørn Lomborg "consensus centre"

JUNE
Federal Government reduces the RET to 33,000GWh following eighteen months of investment uncertainty

JULY
CCA recommends Australia adopt an emissions reduction target of 45 - 65% below 2005 levels by 2030

AUGUST
Federal Government announces Australia will adopt an emissions reduction target of 26-28% below 2005 levels by 2030

SEPTEMBER
Malcolm Turnbull becomes Prime Minister

DECEMBER
195 countries including Australia sign the Paris Climate Agreement

DECEMBER
Federal Government releases quarterly emissions data on Christmas Eve (6 months late)

2016

FEBRUARY
Federal Government announces $15 million funding for oil, gas, coal and uranium centre

MAY
Federal Government requests UNESCO remove all mentions of Australia and the Great Barrier Reef in report on climate change and World Heritage sites

SEPTEMBER
Federal Government cuts $500 million from Australian Renewable Energy Agency budget

OCTOBER
Federal, state and territory energy ministers task Chief Scientist Dr Alan Finkel with leading the development of a blueprint for the National Electricity Market (Finkel Review) considering the need for reliable, secure, affordable and clean power

DECEMBER
Federal Government releases two sets of quarterly emissions data the week before Christmas (6 and 9 months late)

2017

FEBRUARY
Scott Morrison brings a lump of coal into Parliament to underline the government's commitment to coal

JUNE
Finkel Review recommends Clean Energy Target but it was not adopted

OCTOBER
Federal Government proposes the National Energy Guarantee (NEG)

DECEMBER
Federal Government releases quarterly emissions data, Emissions projections 2017 and the 2017 Climate Policy review the week before Christmas

2018

MAY
Federal Government announces $443 million to the Great Barrier Reef Foundation without tendering process. The funding fails to address climate change as a key threat to the reef

AUGUST
Scott Morrison becomes Prime Minister

SEPTEMBER
Federal Government officially drops the emissions reduction component of the NEG

SEPTEMBER
Federal Government releases quarterly emissions data the day before the Grand Final weekend of football, and on a public holiday in Victoria

OCTOBER
The Senate passes a bill to require timely release of quarterly emissions data (In response to the Federal Government's track record of delaying the release of emissions data)

OCTOBER
Federal Environment Minister Melissa Price dismisses recommendation of the IPCC to phase out coal by 2050

OCTOBER
Federal Government announces Underwriting New Generation Investments program

DECEMBER
Federal Government releases 2018 Emissions projections in the week before Christmas, and refuses to rule out investing in coal or gas

2. Attacks on Science

Over the past few decades Australia has developed a world-class climate science capability. This capability, however, has been undermined by Federal Government attacks on science during the past five years.

These attacks have included funding cuts to the CSIRO leading directly to the drastic reduction of CSIRO's climate research capability; abolition of the Climate Commission; key advisors' views on climate change being out of step with the science; and repeated rejection of scientific advice on climate change from leading national and international scientific institutions. Collectively, these attacks have eroded the ability of the climate science community to provide cutting-edge information on climate trends, future projections, impacts, risks and solutions.

Federal Government attacks on science have undermined Australia's capacity to respond to intensifying climate change.

2.1 Funding and job cuts for CSIRO's climate science division

In the 2014 federal budget the Government cut CSIRO's budget by $115 million over four years, approximately 16% of the organisation's total budget (Dayton 2014). The cuts played a large part in the loss of almost one-third of CSIRO jobs (from 5,000 to 3,500 total staff) in the two years up to June 2015. This, together with the newly appointed CSIRO CEO's decision in 2015 to dramatically reduce the organisation's climate research capacity, put in jeopardy Australia's ability to understand, respond to and plan for a changing climate (CSIRO 2016; SMH 2016a).

The Federal Government's cuts to CSIRO climate science are at odds with Australia's commitment under the Paris Climate Agreement to join the rest of the world in tackling climate change. Part of this commitment includes strengthening climate science as a fundamentally important component of meeting the climate change challenge (UNFCCC 2015).

The cuts have significantly reduced our ability to understand climate risks to our health and wellbeing, economy, water resources, cities, farmers, infrastructure, ports, and energy security. Moreover, the cuts have damaged a world-class capability that has taken decades to build and cannot be easily recovered (Climate Council 2016a).

CSIRO cuts put Australia at risk of flying blind in a changing, turbulent climate.

Figure 3: Federal Government cuts to the CSIRO have put Australia and the Southern Hemisphere at risk of flying blind while trying to navigate climate change.

The CSIRO cuts have also affected the global climate research community, because Australia has the strongest climate research capability in the Southern Hemisphere. The ability of the international scientific community to understand the changing atmospheric and oceanic circulation in this hemisphere, a critical component of global circulation systems, and what this means for the risks of climate change in our part of the world, including Australia itself, has been significantly diminished.

There was a strong response from the international science community on the damaging impact of the CSIRO cuts. A range of organisations and international experts, including almost 3,000 individual scientists across 60 countries, highlighted how these cuts would severely limit CSIRO's capacity, with serious impacts for the Australian and global research effort.

In response, the Federal Government announced a new Climate Science Centre in Hobart. Despite this concession, there has been a major loss of expertise and the focus on climate change has been significantly weakened (The Conversation 2016).

2.2 Closure of the Climate Commission

The Climate Commission was established by the Gillard Government in 2011 to communicate reliable and authoritative information about climate change to the Australian public. Plans to shut down the Climate Commission, along with a raft of other climate-change related institutions and the carbon price mechanism, were proposed by the Coalition before the 2013 election (SMH 2013).

On the second day of office after the election, the incoming Abbott Government dissolved the Commission.

Between 2011 and 2013, the Climate Commission had produced nearly 30 reports on a range of climate-related topics including the fundamental science of climate change, climate impacts in Australia, global action to reduce greenhouse gas emissions and the potential of renewable energy. The Climate Commission also convened numerous public meetings engaging with communities across Australia (Figure 4).

In response to the abolition of the Climate Commission and ongoing public demand for science-based information about climate change, the independent Climate Council was founded on 23 September 2013 (Climate Council 2014).

The first act of the incoming Federal Government was to abolish the Climate Commission.

Figure 4: Climate Commission forums provided climate information to communities across Australia.

2.3 Key advisors' climate views out of step with science

In May 2015, Maurice Newman, the Chairman of the Prime Minister's Business Advisory Council publicly claimed that there was little evidence to support human-influenced climate change and that UN efforts to tackle climate change are a waste of money:

> *"We have been subjected to extravagance from climate catastrophists for close to 50 years...Why then, with such little evidence, does the UN insist the world spend hundreds of billions of dollars a year on futile climate change policies?"* (Newman 2015).

In 2014, Newman said:

> *"If the world does indeed move into a cooling period, its citizens are ill-prepared"* (Newman 2014).

The concept of a cooling world is contrary to the findings of every major scientific and meteorological body in the world that the Earth is getting hotter.

In a critique of the most authoritative international body on climate science, Newman claimed that:

> *"Since its first report in 1990, the UN Intergovernmental Panel on Climate Change progressively has applied mass psychology through a compliant media to spread the delusion that wicked Western industrialists are causing irreparable damage to the climate... Australia, too, has become hostage to climate change madness"* (Newman 2013).

Again, this claim is at odds with every major scientific and meteorological body in the world, which clearly show how intensifying climate change from the burning of fossil fuels is worsening climate impacts such as intense heatwaves, dangerous bushfire conditions, intense rainfall and flooding.

In 2014, the Federal Government also appointed Dick Warburton to undertake a review of the national Renewable Energy Target (RET). Warburton told the ABC:

> *"I am not a denier, nor a sceptic actually, of climate change per se. What I am sceptical is the claims that man-made carbon dioxide is the major cause of global warming"* (See interview transcript, ABC 2014).

2.4 Climate Change Authority emissions target recommendations rejected

The Climate Change Authority (CCA), established under the Climate Change Authority Act 2011, has a mandate to provide independent, expert advice on climate change policy (CCA 2019).

In July 2015, the CCA completed a comprehensive evaluation of Australia's emissions reduction targets, recommending that Australia's 2030 emissions reduction target be set at 45 - 65% below 2005 levels.

The CCA considered these targets credible in relation to what the science requires; the actions of Australia's major trading partners and allies; and setting a global emissions reduction path consistent with a reasonable chance of limiting the increase in global warming to 2°C (CCA 2015a).

The CCA's recommendations were based on a two-thirds chance of avoiding 2°C warming. For an improved chance, the target should be stronger. Therefore, if global average temperature is to stay below 2°C, then the CCA recommendations should be seen as a bare minimum for Australia's contribution to tackling climate change in concert with the rest of the world.

The CCA view was that the recommended emissions reduction target of 45 - 65%

> *"would send a credible signal to domestic and international stakeholders alike that the Government is intent on playing a leadership role in guiding Australia's long-term transition to a sustainable, low carbon world"* (CCA 2015a, p. 6).

The recommended target would create an opportunity for Australia to move from a laggard on climate change to action more commensurate with that of the rest of the world.

Despite this science-based advice from this independent advisory body, in August 2015, the Abbott Government announced an emissions reduction target of 26 - 28% below 2005 levels by 2030 (Australian Government 2015). This target is also the pledge Australia made under the Paris Climate Agreement (UNFCCC 2015). The Government did not provide an explanation of the discrepancy between the announced target and the CCA's recommendation. The CCA Chair subsequently characterised the government's 2030 target as

> *"substantially weaker than recommended by the Authority"* (CCA 2015b).

An emissions reduction target of 45 to 65% below 2005 levels should be seen as a bare minimum 2030 target for Australia.

Australia's current 2030 target is thus not aligned with the science and, indeed, is woefully inadequate when benchmarked against the level of action necessary to limit warming to 2°C. Independent analysis estimates that if all national emissions reduction targets were comparable to Australia's, global warming be at least 2°C and potentially up to 3°C (Climate Action Tracker 2018). The Government's chosen emissions reduction target also puts Australia well below the countries we would generally compare ourselves to, such as the United Kingdom, European nations, Canada, and New Zealand (CCA 2015b).

In the longer term, Australia needs to be on a pathway to reducing carbon dioxide emissions to 'net zero' well before 2050. The Federal Government currently has no national target beyond 2030, and even the current 2030 target is not legislated.

Australia has technologies and resources available to achieve net zero emissions by 2050 (ClimateWorks Australia 2015). The constraints to deep emission cuts are no longer a lack of appropriate technologies but rather the lack of necessary policies and actions.

In 2016, the CCA ignored its own previous recommendation – despite protests from the only remaining climate scientist on the panel – and accepted the Federal Government's 26 - 28% 2030 emissions reduction target (CCA 2016). The actions recommended in the CCA's 2016 report were out of step with the science, and two high-profile members of the authority's board released a minority report in response (see Hamilton and Karoly 2016).

Since July 2017, there have been no members of the CCA with climate science expertise, a glaring deficiency considering the CCA's mandate to provide expert assessment of the effectiveness of proposed greenhouse gas emission reductions, and the projected impacts on Australia from current and future climate change (The Guardian 2017).

Australia is a global laggard with a 2030 emissions target that is far weaker than what is necessary to tackle climate change.

2.5 Federal Government ignored IPCC recommendations of phasing out coal

Central to the Paris Climate Agreement is the aim of keeping global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C (UNFCCC 2018).

As part of the adoption of the Paris Climate Agreement, which Australia ratified in 2016, the IPCC was invited in 2018 to provide a special report on the impacts of global warming of 1.5°C.

Launched on 8 October 2018, the IPCC Special Report on Global Warming of 1.5°C outlines the impacts of global warming of 1.5°C above pre-industrial levels and explores global greenhouse gas emission reduction pathways consistent with limiting global temperature rise to 1.5°C. The Report describes measures to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty. The Report included 91 authors and editors from 40 countries, assessed more than 6,000 research papers, and received 42,000 comments in three reviews.

Despite the IPCC's status as the most authoritative international body on climate science, the Environment Minister, Melissa Price, said that the Report's recommendation of phasing out coal by 2050 in a bid to limit global warming was

> *"drawing a long bow"*
> (see interview transcript, ABC 2018a).

The IPCC Special Report shows that the risks for both human and natural systems are lower if the temperature gradually stabilises at 1.5°C compared to overshooting 1.5°C and then returning to 1.5°C later in the century. Meeting the 1.5°C target will require the use of negative emissions technologies. These are measures to remove carbon dioxide from the atmosphere and store it underground or in the deep oceans. There are substantial increases in extremes (e.g. extreme heat, heavy precipitation events and drought) projected between now and 1.5°C, and even more severe impacts between 1.5°C and 2°C.

According to the IPCC Special Report, warm

The Federal Government disregarded the scientific advice of the world's most authoritative body on climate science.

Figure 5: The difference between 1.5°C and 2°C is a big deal, putting Australian lives at risk with significant increases in extremes such as heatwaves.

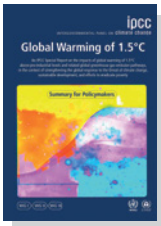
water coral reefs would lose a further 70-90% of cover at 1.5°C warming, with devastating consequences for the Great Barrier Reef (Figure 6). Increased ocean acidity in a 1.5°C world would affect the survival, calcification, growth, development and abundance of a broad range of marine species from algae to fish. Sea-level rise will continue well beyond 2100. Increasing instabilities in the Greenland and West Antarctic ice sheets could result in multimetre sea-level rise on a centuries- to millennium-timeframe, and could be triggered even if warming is limited to 1.5°C by 2100. There is considerably lower risk, for Greenland, at 1.5°C than 2°C and this risk increases rapidly above 2°C. Disadvantaged and vulnerable populations will be disproportionately affected by warming of 1.5°C and beyond.

Impacts of 1.5°C warming on global economic growth are larger than present-day impacts. A warming of 1.5°C will increase the challenges of adaptation across many sectors compared to present-day, and the challenges will be even greater if warming exceeds 2°C.

Increasing instabilities in the Greenland and West Antarctic ice sheets could result in metres of sea-level rise.

Figure 6: The survival of the world's tropical coral reefs (e.g. the Great Barrier Reef and Ningaloo reef in Western Australia) is virtually impossible at 2°C global warming above pre-industrial levels.

For more details refer to:



IPCC (2018) Special Report on Global Warming of 1.5°C.

Climate Council (2018a) The good, the bad and the ugly: Limiting temperature rise to 1.5°C.

Warm water coral reefs would lose a further 70-90% of cover at 1.5°C warming.

3. Australia's Track Record on Climate Targets and Greenhouse Gas Emissions

Climate change is primarily driven by the buildup of greenhouse gases in the atmosphere from the burning of coal, oil and gas. A climate target (or more precisely, an emissions reduction target) is a goal to reduce emissions of greenhouse gases usually over a decade or more. A suite of policies must then be implemented to meet the target across the economy.

National climate change targets are referenced to the global effort to prevent global temperature reaching certain thresholds. Since the 1990s the global consensus has been that limiting global temperature rise to below 2°C is critical to prevent catastrophic changes, like multi-metre sea-level rise or major damage to key ecosystems. Today global temperature has already risen by 1°C and we are witnessing the consequences with more severe extreme weather. More recently it has become clear that limiting global temperature rise to below 1.5°C is a more prudent international goal.

To limit global temperature rise to below 1.5°C to 2°C, ultimately all nations need to reduce greenhouse gas emissions to net zero by 2050 at the latest.

Australia has committed to emission reduction targets under the Kyoto Protocol and the Paris Agreement. This section explains why the Federal Government's current 2030 emissions reduction target is inadequate in terms of tackling climate change. Even so, Australia is likely to overshoot this target as national greenhouse gas emissions (excluding land-use emissions) have been going up, rather than down.

Total greenhouse gas emissions from our economy (excluding land use emissions) has been going up rather than down.

The Federal Government's reporting and accounting of our emissions reduction targets has masked this reality. The Federal Government has used weak targets, land-use emissions and carryover credits from the Kyoto Protocol period to claim Australia's performance on reducing emissions is better than it actually is. Transparency on such a complex issue is critical but has been lacking.

Australia needs to implement greenhouse gas emissions reduction targets:

- Consistent with the CCA's recommendation for 45 - 65% emissions cuts on 2005 levels by 2030 (as a bare minimum).
- Put us on track to reduce emissions to net zero by 2050 at the latest, preferably earlier.

Figure 7: Australia is unlikely to meet its 2030 climate target because of rising emissions from the burning of coal, oil and gas.

3.1 Australia's 2030 climate target is woefully inadequate

For Australia to contribute its fair share to limiting global temperature rise, the CCA (2015) recommended a 45 - 65% cut in Australia's greenhouse gas emissions by 2030 below 2005 levels (see Section 2.4). The CCA's recommended 2030 target is the bare minimum required in terms of the science, commitments of comparable countries and Australia contributing its fair share to efforts to limit global temperature rise below 2°C.

In 2015, the Federal Government committed to reduce Australia's greenhouse gas emissions by 26-28% below 2005 levels by 2030. This target is out of step with the science (Climate Action Tracker 2018).

The Federal Government's 2030 target is not a point in time, but rather a commitment to an

> *"absolute economy-wide emissions reduction by 2030, to be developed into an emissions budget covering the period 2021-2030"* (UNFCCC 2015, page 3).

As detailed further in Section 3.3, over the past five years the current Federal Government has not implemented credible climate policies and consequently Australia's actual emissions are, on the Government's own forecasts, on track to overshoot even its inadequate 2030 target.

Failure to meet even the current 2030 target would result in Australia falling further behind contributing its fair share to global action on climate change.

Australia is on track to overshoot its 2030 emissions reduction target.

3.2 Australia's greenhouse gas emissions are rising

A true test of effective climate policy is a reduction of greenhouse gas emissions. Australia's total emissions decreased during the operation of the Carbon Pricing Mechanism from 2012-2014 (Figure 8). However, since this policy was repealed by the Abbott Government in 2014 emissions have increased.

Over the last four years Australia's emissions (excluding land-use emissions) have been rising year on year. Recent Government data shows that greenhouse gas emissions from fossil fuels are now at a record high and are projected to continue to rise to 2030.

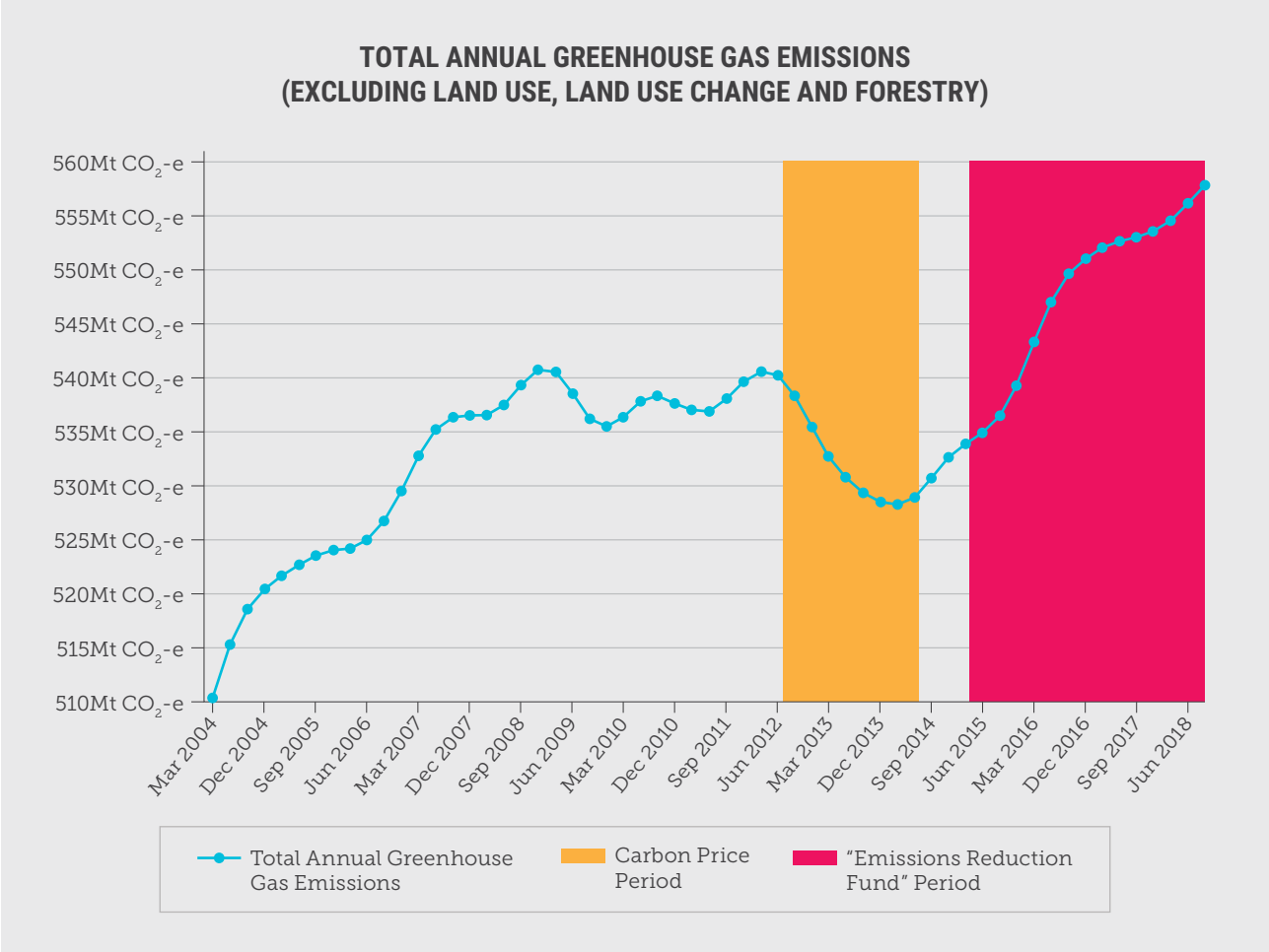


Figure 8: Total annual greenhouse gas emissions (excluding Land Use, Land Use Change and Forestry).
Source: Data from Australian Government 2018a.

The Morrison Government is claiming Australia's performance on reducing emissions is better than it is in reality and is using dubious accounting methods, such as claiming *"carryover credits"* from the Kyoto Protocol period (see Box 1).

There have also been reports of "integrity issues" regarding the Emissions Reduction Fund, the scheme that replaced the Carbon Pricing Mechanism. Specifically, the independent Emissions Reduction Assurance Committee raised concerns about carbon credits being issued for sequestration that has not yet occurred (SMH 2019a).

In 2011, the Gillard Government introduced the Carbon Pricing Mechanism as part of the Clean Energy Future package. The Mechanism was designed as a permit system with a fixed price for the first three years, transitioning to an emissions trading scheme in 2015 (Parliament of Australia 2013). The Mechanism covered approximately 60% of Australia's greenhouse gas emissions across electricity, stationary energy, landfill, wastewater, industrial processes and fugitive emissions sectors. The scheme did not cover agricultural or land-use emissions, and did not apply to households or most small businesses (Clean Energy Regulator 2015).

The repeal of the Carbon Pricing Mechanism by the Abbott Government in July 2014 followed shortly after an Australian National University study (O'Gorman and Jotzo 2014) that found that the two-year old Carbon Pricing Mechanism scheme had successfully reduced:

- Greenhouse gas emissions 11 - 17 million tonnes CO_2 in total over two years of operation.
- Electricity demand by 2.5 - 4.2 terawatt hours per year.
- The emissions intensity of power supply in the National Electricity Market by 16 - 28 kg CO_2/MWh.

Emissions (excluding land-use emissions) fell during 2012 – 2014, when the Mechanism was in place, but these reductions have since been reversed and eclipsed by emissions growth after 2014 (Figure 8).

A recent review by the Organisation for Economic Co-operation and Development (OECD 2019) found Australia continues to rely heavily on coal and gas, is one of the largest greenhouse gas emitters in the OECD, and is not on track to reach its 2030 target. The United Nations Environment Programme (UNEP 2018) found Australia's greenhouse gas emissions in 2030 would be *"well above"* its target.

Australia's fossil fuel emissions are now at a record high.

3.3 Failure to implement national climate and energy policy

In October 2016, federal, state and territory energy ministers tasked Chief Scientist Dr Alan Finkel with leading the development of a blueprint for the National Electricity Market considering the need for reliable, secure, affordable and clean power. Initially the Finkel Review was tasked with considering an emissions intensity scheme for the electricity sector, but within days this was ruled out by then Environment and Energy Minister Josh Frydenberg (ABC 2016).

The Federal Government has failed to introduce effective climate and energy policies.

The Finkel committee undertook a substantial public consultation and planning process to inform its final report issued in June 2017 (Climate Council 2018b). The Finkel Review outlined 50 recommendations for the electricity sector. Federal, state and territory energy ministers agreed to 49 out of the 50 recommendations, including those dealing with the security, reliability and affordability of the electricity system. The one outstanding recommendation - for a Clean Energy Target to reduce greenhouse gas emissions - was not adopted.

In October 2017, the Turnbull Government then proposed the National Energy Guarantee (NEG), which comprised a 'reliability obligation' and an 'emissions obligation'. The design of the NEG, however, particularly the 2030 emissions reduction target of 26% for the electricity sector, would have done little or nothing to reduce emissions from the electricity sector (Climate Council 2018b). In September 2018, the Federal Government dropped the emissions component of the NEG, and changed Prime Minister and Energy Minister (The Guardian 2018). The NEG's reliability obligation is now being further developed and is set to be implemented (COAG Energy Council 2019).

In the continuing absence of effective national climate and energy policy, many state and territory governments have moved ahead with state-based schemes such as renewable energy and emissions targets and specific programs to encourage the roll out of additional renewable energy and storage (Climate Council 2018b).

In October 2018, instead of pursuing the further development of a national climate and energy policy, the Morrison Government announced a new program called Underwriting New Generation Investments (Australian Government 2018b). The Government refused to rule out using this program to invest in new fossil fuel power (Department of the Environment and Energy 2019). In March 2019, the Federal Government announced 12 short-listed projects including five gas projects and a proposed upgrade of a coal-fired power station (AFR 2019). The remaining six short-listed projects are for pumped hydro storage projects, associated with wind and solar generation (Australian Government 2019a). It also announced a $10 million feasibility study to revive the decommissioned Collinsville coal power plant in Queensland.

3.4 The impact of including land-use change on Australia's emissions

Storing carbon on land is important, but it must be additional to, not instead of, effective action to reduce greenhouse gas emissions. Tackling climate change effectively can only be done by reducing fossil fuel emissions deeply and rapidly.

Land-use and land-cover change emissions are a significant component of Australia's carbon budget, and land carbon is often relied upon to play a major role in meeting Australia's emissions reduction targets (Climate Council 2016b). However, a fundamental problem with this approach is that much of the carbon stored in land systems (i.e. in vegetation and soil) is vulnerable to return to the atmosphere by natural and human changes.

Disturbances such as bushfires (Figure 9), droughts, insect attacks and heatwaves, many of which are being made worse by climate change, can trigger the release of significant amounts of land carbon back to the atmosphere (Galik and Jackson 2009; Mackey et al. 2013; Thom and Seidi 2016). Changes in land management policies, for example, the relaxation of land clearing

Figure 9: Disturbances in the landscape from events such as bushfires are being made worse by climate change, and can result in the release of very large amounts of land carbon back to the atmosphere.

laws, can also affect the capability of land systems to store carbon (DCCEE 2010; CO_2 Australia 2016). In contrast, carbon in fossil fuels left in the ground undisturbed cannot be returned to the atmosphere. Thus, storing carbon on land is not a permanent way of removing carbon from the atmosphere and cannot be used to *"offset"* ongoing fossil fuel emissions.

Australia's quarterly emissions reports and projections include a category called "land use, land use change and forestry" or "LULUCF" (referred to in this report as land-use emissions). Land-use emissions are an approximation of the net emissions from deforestation activities (such as removing vegetation) and reforestation (such as tree planting). For all other sectors, such as electricity and transport, reports track actual greenhouse gas emissions resulting, for example, from the burning of fossil fuels and from cement production.

When the Kyoto Protocol (UNFCCC 2011) was being negotiated, other nations objected to the inclusion of changes in land-use emissions in measurement targets and performance under the Protocol, but Australia held its position until it secured that clause (The Australia Institute 1998; Hamilton 2015). Excluding land-use emissions, Australia's greenhouse gas emissions are currently at a record high, and are expected to continue rising to 2030. However, when land-use emissions are included, Australia's overall emissions are lower today than in 2005 and 1990 (Table 1; Figure 10). If Australia had not secured the benefit of changes in land-use emissions in the Kyoto Protocol, it would not have met its emissions targets for either the First or Second Commitment Period under the Protocol.

Table 1: Australia's greenhouse gas emissions (Mt CO_2-e). The effect of including or excluding land-use emissions means the difference between overall emissions decreasing or increasing in 2030.

	1990*	2000	2005	2018	2030 (projected)	Change in emissions in 2030 on 2005 levels (calculated)
Total emissions (excluding land-use emissions)	420	485	523	556	564	8% increase
Total emissions (including land-use emissions)	577	547	605	534	563	7% decrease

Source: Derived from Table 3, p 12, Australian Government 2018c. *Table ES.01, p xi, Australian Government 2018d.

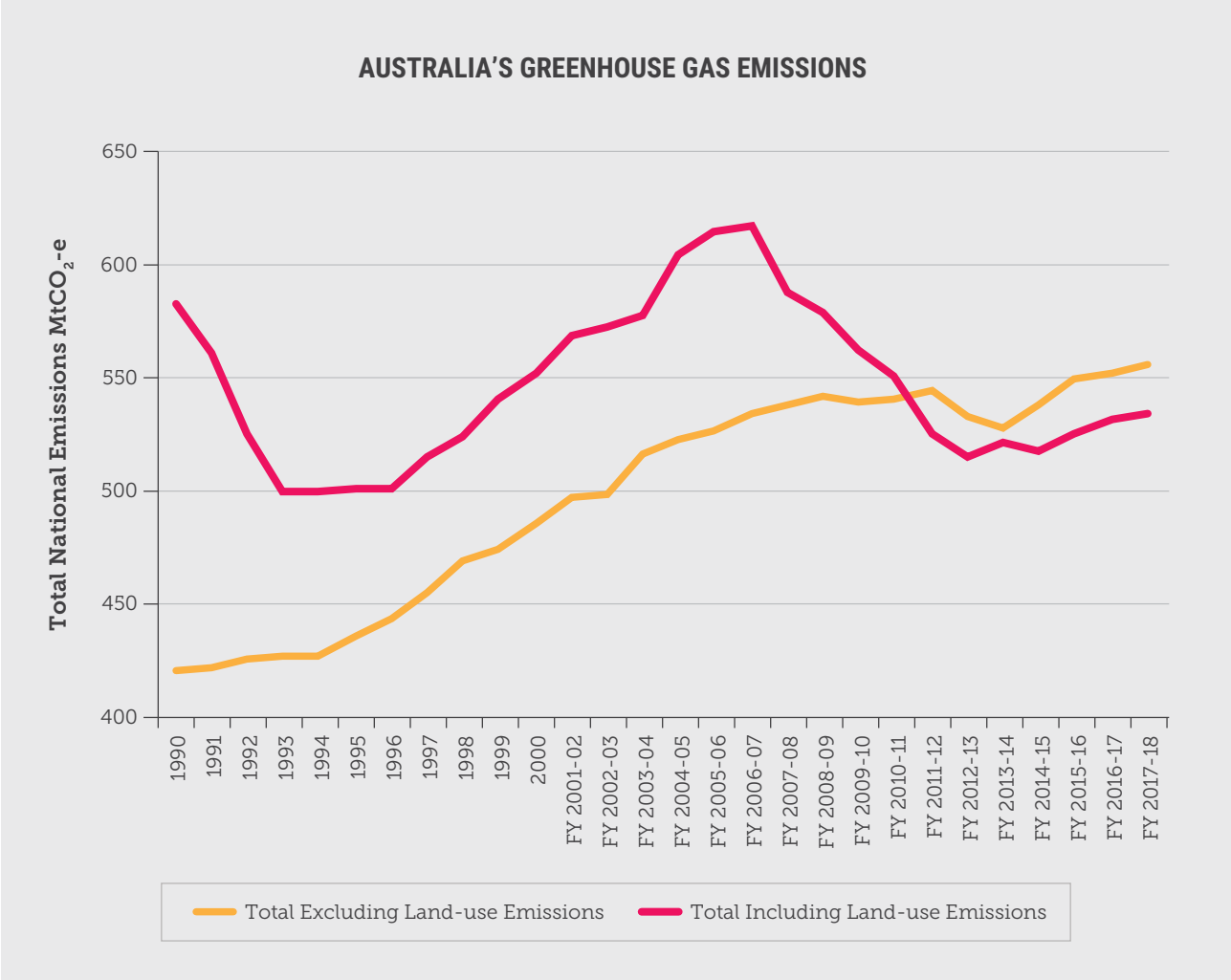


Figure 10: Australia's greenhouse gas emissions (including and excluding land-use emissions). **Source:** Data for 1990 - 2000 from Australian Government 2019b; 2001 - 2018 from Australian Government 2018d.

Reporting of land-use change data has masked the actual changes in Australia's greenhouse gas profile. Transparency is of fundamental importance, and yet this has been lacking in Federal Government reporting.

The challenge for climate policy is to respect this fundamental difference between fossil and land carbon by building a firewall between policies to reduce fossil fuel emissions and policies to increase carbon uptake on land. This means there should be no offsetting of fossil fuel emissions by increasing land carbon.

Reducing fossil fuel emissions is the only way to tackle climate change effectively.

BOX 1: WHAT IS CARRYOVER AND WHY DOES AUSTRALIA HAVE SO MUCH OF IT?

Carryover is effectively a type of emissions credit on paper collected during the Kyoto Protocol period. Carryover is accumulated when a country reduces emissions by a larger amount than agreed during the First Commitment Period (2008-2012), and then uses this carryover towards meeting commitments in the Second Period (2013-2020). While carryover may make Australia's performance look better on paper, its inclusion does not actually reduce greenhouse gas emissions. Claiming carryover credits is essentially an accounting method which allows a country to emit more emissions than it has promised.

The rules under the Paris Climate Agreement regarding the use of carryover (whether or not carryover can be used) from the Kyoto Protocol period are yet to be agreed at international climate negotiations with other countries. But the Paris Agreement was meant to be a clean slate for all nations, to reduce greenhouse gas emissions more deeply than under the Kyoto Protocol. Several nations, including New Zealand, Denmark, the Netherlands, Sweden, and the United Kingdom, have publicly stated they will not use carryover credits from the Kyoto Protocol to meet emissions reduction targets under the Paris Agreement (SBS 2015; ABC 2018b). This is consistent with the Kyoto Protocol rules, which explicitly state that any surplus cannot be used in any subsequent commitment (SMH 2019b). New Zealand's Climate Minister said that the use of carryover credits is against the spirit of the Paris accord (SMH 2019b).

Despite these rules, and the statements of other countries, the Australian Federal Government has publicly indicated it plans to use 'carryover' from the Kyoto Protocol to meet its 2030 target (ABC 2018b; The Australian 2018; Australian Government 2018c; Australian Government 2019c).

According to Federal Government publications, during the Kyoto Protocol period, Australia expects to have accumulated 367 million tonnes CO_2 -e of carryover during 2008 - 2020 (Australian Government 2018c). This amount of carryover accounts for around half of Australia's total emissions reductions required between 2020 and 2030 (695 - 762 $MtCO_2$-e) to meet the current 2030 target (Australian Government 2018c; The Australian 2018).

The Federal Government intends to write off half of Australia's 2030 climate target with Kyoto carryover credits.

BOX 1: CONTINUED

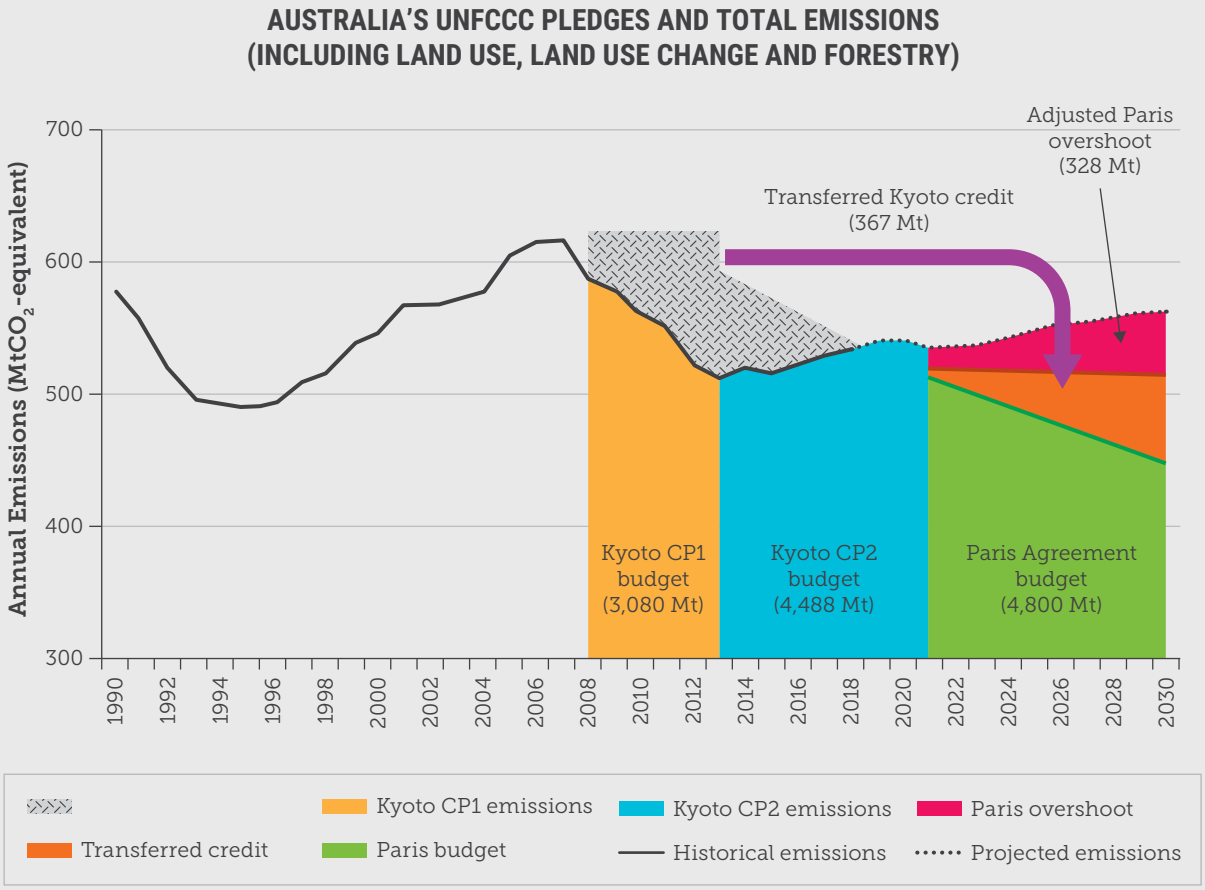


Figure 11: Representation of Australia's claimed carryover credits. **Source**: Baxter 2019.

Why does Australia have carryover credits? Weak targets and land-use emissions.

Australia's carryover credits are a result of Australia committing to weak emissions targets under the Kyoto Protocol that it was easily able to beat, as well by selecting an unusually high year for greenhouse gas emissions as a baseline. Under then Prime Minister John Howard, Australia was one of only three countries to negotiate a target to *increase* its emissions under the first period of the Kyoto Protocol (2008-2012), which aimed to decrease emissions in developed countries. Australia negotiated an 8% increase above 1990 levels by 2012. Iceland (10%) and Norway (1%), with large amounts of renewable energy generation, also negotiated increases (UNFCCC 2019), while all other countries pledged to decrease their emissions over the 1990-2012 period.

BOX 1: CONTINUED

In addition to its target to increase emissions, Australia also negotiated the inclusion of land-use change in emissions accounting under Article 3.7 of the Kyoto Protocol. This is commonly known as 'the Australia clause' (Parliament of Australia 2000). As 1990 was a year in which there was a very substantial amount of land clearing in Australia, clearing less land after 1990 was considered a reduction in emissions.

These Kyoto carryover credits are essentially an accounting trick. Even though Australia's energy-related emissions have continued to increase, our uniquely generous target and the reduction in land clearing since 1990 has enabled the Federal Government to claim that Australia is meeting its Kyoto obligations. By claiming carryover towards meeting Australia's 2030 target, the Federal Government is:

- Delaying inevitable action to reduce Australia's emissions. As all countries must reduce greenhouse gas emissions to net zero by 2050 under the Paris Climate Agreement, Australia is simply postponing the required transition to a clean economy.
- Providing justification for other countries to employ the same type of behaviour.
- Solidifying Australia's place as a global laggard when it comes to effectively tackling climate change.

Figure 12: By including land-use change in emissions accounting, Australia set a very low bar for its climate target under the Kyoto Protocol.

3.5 Federal Government fails to ratchet up Australia's 2020 target

In 2009, the then Federal Government under Prime Minister Kevin Rudd set an emissions reduction target range of 5 - 25% below 2000 levels by 2020 under the Kyoto Protocol (Parliament of Australia 2009). The following conditions were established for increasing Australia's emissions reduction target beyond its 5% "unconditional target":

- 5 - 15% - when the level of global ambition is clear, specific targets are in place for advanced economies and actions to reduce emissions are being taken by China and India, and clarity on emissions accounting.
- 15% - International agreement where major developing economies commit to restrain emissions substantially and advanced economies take on commitments comparable to Australia's.
- 25% - Comprehensive global action capable of stabilising carbon dioxide concentrations at 450 ppm or lower.

Successive Federal Governments have not strengthened Australia's 2020 target despite the CCA (2014) assessing Australia's 5% target as being at the weaker end of comparable countries and advising the conditions for strengthening the target beyond 5% had been met. Notably, projections show Australia will meet its 2020 target, even though Australia's actual emissions in 2020 are projected to be only 1.3% below 2000 levels (Australian Government 2018c).

This means Australia has continued to rely on a target that is out of step with climate action taken by comparable countries, and out of step with the science.

4. Misleading and Inaccurate Claims

In the past five years there have been a number of misleading claims made by senior Federal Government ministers. This section provides a snapshot of some of the most glaring examples.

4.1 Emissions are going up, while the Energy Minister claims they are going down

> *"They [emissions] are coming down and the Department rightly believes they're going to continue to go down, and the result of this is we will reach not just our Kyoto targets - and we're still in the Kyoto period - we will reach our Paris targets."*
>
> - Energy Minister Angus Taylor (ABC 2019a)

The Federal Government emissions data the Minister was referring to was a single quarter (i.e. September 2018). However, Australia's greenhouse gas emissions increased in the year to September 2018 (Department of the Environment and Energy 2019). The overall trend over the past four years has been for rising greenhouse gas emissions (excluding land use emissions).

The Government says emissions are going down, but the fact is they are going up.

4.2 Senior ministers inaccurately claim Australia will meet its emissions reduction target ahead of schedule

"The latest projections report confirms our government has set Australia on track to meet and beat our 2030 target"

- Prime Minister Scott Morrison (SBS 2018)

"The business-as-usual model gets us there in a canter"

- Prime Minister Scott Morrison (The Guardian 2018a)

"Emissions reductions are the least of our problems with every prospect we will reach the 26 per cent reduction below 2005 levels ahead of schedule and without interventions"

- Energy Minister Angus Taylor (AFR 2018)

"we've seen numbers this week that show that we'll reach that in the early 2020s. We'll be at 28 per cent reduction by 2023, seven years ahead of time. So, we are doing extremely well on emissions reduction"

- Energy Minister Angus Taylor (Australian Government 2018e)

"In terms of the electricity sector, we're overachieving with respect to bringing emissions down in that sector"

- Environment Minister Melissa Price (ABC 2018c)

"Australia is on track, as we know, to meet our targets..."

- Foreign Affairs Minister Marise Payne (ABC 2019b)

Even when carryover credits from the Kyoto Protocol and land-use emissions are included, the Government's own emissions projections find Australia is not on track to reduce emissions by 26-28% below 2005 levels by 2030 (Australian Government 2018c; see Sections 3.1 and 3.4).

According to the Government's projections, not even the electricity sector is on track to reduce emissions by 26 - 28% below 2005 levels by 2030. The projections indicate electricity sector emissions will decline by 17% by 2030 (Australian Government 2018c).

4.3 Targets, renewable energy and lower electricity prices

> *A 45% target "means the prices would go up, it's estimated, by $1,400 per household."*
>
> - Scott Morrison
> (Prime Minister of Australia 2018a)

> *"now the truth of the matter is that [indistinct] set a very aggressive emissions target, you're going to drive up prices. So there's no doubt about it."*
>
> - Angus Taylor
> (Australian Government 2018f)

Renewable energy like solar plants and wind farms are the lowest cost form of new electricity generation (CSIRO 2018).

In the electricity sector, transitioning to higher levels of renewable energy (to reduce greenhouse gas emissions) has been shown to lower wholesale power prices (Victoria Energy Policy Centre 2018).

In addition, one study found wholesale and household retail electricity prices are expected to decrease under 45 - 65% emissions reduction targets (ACOSS and BSL 2018).

4.4 Prime Minister and Treasurer imply renewable energy and storage cannot provide reliable 24/7 power

> *"No, coal continues to play a vital role in our energy mix. If we were to take coal out of Australia's energy system the lights would go out on the east coast of Australia – it is as simple as that"*
>
> - Treasurer Josh Frydenberg
> (The Hon Josh Frydenberg 2018)

> *"we can't run an energy system that relies on intermittent power sources like wind and solar"*
>
> - Prime Minister Scott Morrison
> (Prime Minister of Australia 2018b)

> *"Renewables are great. But we're also needing the reliable power when the sun isn't shining and the wind isn't blowing. That's what keeps the lights on"*
>
> - Prime Minister Scott Morrison
> (Scott Morrison MP 2018)

A high renewable powered grid can balance demand and supply for electricity through a mix of variable renewables (wind and solar PV), on-demand or "dispatchable" renewables (such as solar thermal, sustainable biomass or established hydro power), energy storage technologies (such as pumped hydro or batteries) together with energy efficiency and demand response.

Figure 13: Global uptake of renewables is gathering momentum as 17 countries generate more than 90% of their electricity with renewable energy.

Evidence shows Australia can be powered by very high levels of renewables.

Countries around the world are integrating an increasingly large amount of renewable energy into their electricity grids. In 2017, 176GW of new renewable energy capacity was added globally, and more solar was added than coal and gas combined. Seventeen countries around the world generated more than 90% of their electricity with renewable energy in 2017 (REN21 2018).

Studies consistently find there are no technical barriers to Australia achieving secure power from a very high proportion of renewable electricity (AECOM 2012; AEMO 2013; Elliston et al 2013; Lenzen et al 2016; Teske et al 2016; CSIRO 2017; Finkel 2017). However, renewable energy rollout is unlikely to continue at current rates without additional policy support (Climate Council 2019a).

4.5 Politicising power outages

> *"I regret to say that a number of the state Labor governments have over the years set priorities and ¬renewable targets that are ¬extremely aggressive, extremely unrealistic, and have paid little or no attention to energy security"*
>
> - Then Prime Minister Malcolm Turnbull (The Australian 2016)

> *"Let's take this storm in South Australia ... as a real wake-up call. Let's end the ideology and focus on clear renewable targets"*
>
> - Then Prime Minister Malcolm Turnbull (The Australian 2016)

> *"Reliability suffered, most noticeably in South Australia, where their reckless reliance on renewables without storage or firming capacity left their system vulnerable"*
>
> - Then Prime Minister Malcolm Turnbull (Grattan Institute 2019)

> *"The question has to be asked, is [South Australia's] over-reliance on renewable energies exacerbating their problems and their capacity to have a secure power supply?"*
>
> - Then Deputy Prime Minister Barnaby Joyce (SMH 2016b)

Figure 14: Storms like the one which knocked out the entire South Australian electricity network on 28 September 2016 are occurring in a warmer and wetter atmosphere driven by climate change.

On 28 September 2016, a one-in-50 year storm hit South Australia with severe thunderstorms and winds that damaged 22 transmission towers (Figure 14), leading to a statewide power outage (AEMO 2016).

Then Prime Minister Malcolm Turnbull reportedly received advice that the power outage had nothing to do with renewable energy (SMH 2016c). Nevertheless, Turnbull and other senior Federal Government ministers consistently blamed South Australia's reliance on renewable energy.

The politicisation of renewable energy during power outages has become a pattern, driven by politicians and media commentary (Grattan Institute 2019). For example, the Grattan Institute (2019) found that since 2017, media articles mentioning blackouts spiked (to levels ten times higher than the preceding decade) even though power outages did not actually increase.

On 25 January 2019 in Victoria, more than 200,000 homes experienced power outages due to a combination of factors including high temperatures, higher than expected electricity demand, and outages at Victoria's ageing coal-fired power stations (ABC 2019c). Coal-fired power stations are becoming increasingly unreliable, breaking down over 100 times in 2018, putting significant strain on the electricity grid.

> *"Late last week, we saw around 150,000 Victorian households and many crucial businesses lose their power. Daniel Andrews and the Victorian Government have some very hard questions to answer because for years now, they have been deliberately trashing their reliable 24/7 power in the Victorian electricity grid. They've been encouraging investment in variable generation without the backup, without the storage. This is policy that was always going to end badly"*
>
> - Energy Minister Angus Taylor (Australian Government 2018g)

4.6 Undermining electric vehicles

The transport sector accounts for 19% of Australia's greenhouse gas emissions, the third largest source of emissions (Australian Government 2019d). Australia's transport emissions have been steadily rising and are projected to continue going up. Solutions are, however, readily available to cut rising greenhouse gas emission levels from the transport sector. These include introducing vehicle emissions standards, planning for and investing in infrastructure to enable more people to walk, cycle and use public transport, powering cars, buses and rail with renewable energy, along with increasing the uptake of electric vehicles (Climate Council 2018c).

There has been significant media and public focus on electric cars and there are lots of benefits to shifting to this mode of transport. Unlike their petrol and diesel counterparts, electric cars powered by renewables cut greenhouse gas emissions, reduce our reliance on imported fuels, result in cleaner air and have huge potential to create new investment and jobs in vehicle manufacturing (Climate Council 2018c; Commonwealth of Australia 2019a). The Federal Government itself estimated that electric vehicles would comprise 25 - 50 % of new car sales by 2030, as part of its climate solutions package, and this would cut greenhouse gas emissions by 10 megatons by 2030 (Parliament of Australia 2019).

Figure 15: In 2018, a Tesla SUV set a new Guinness World Record when it towed a 130 tonne Boeing 787-9 Dreamliner over 300 metres on a taxiway at Melbourne Airport.

Rather than highlight these benefits, the Federal Government has instead chosen to mislead the public on the capabilities of electric vehicles. For example, Prime Minister Scott Morrison claimed that "...[An electric vehicle's] not going to tow your trailer. It's not going to tow your boat. It's not going to get you out to your favourite camping spot with your family." (See transcript from media release, Prime Minister of Australia 2019).

There are electric SUVs that can tow caravans and trailers. For example, the Tesla Model X SUV. More electric SUV and 4WD models are under development, including Australia's highest selling vehicle the Toyota Hilux (Canberra Times 2019), with some entering the international market next year (Carbuyer 2019).

To hasten the uptake of transport solutions, Australia needs strong federal, state and local policies, and investment that sets us on the right path. In Norway, for example, a target of all new car sales to be electric cars by 2025 has helped transition the car market so much that half of all cars on the road in that country are now electric (Norsk elbilforening 2019).

Electric vehicles powered by renewable electricity are reliable, practical and increasingly affordable, but strong policy is required to provide more opportunities to accelerate the uptake of electric vehicles in Australia to help drive down transport emissions (Climate Council 2019b).

5. Questionable Conduct

The past five years have also seen a number of decisions by the Federal Government that call into question its commitment to action on climate change.

5.1 Federal Government censors UNESCO report

In 2016 the Federal Government intervened to remove all mentions of Australia from the final version of a United Nations Educational, Scientific and Cultural Organization (UNESCO) report on climate change and World Heritage sites, contending that the findings could be confusing and damaging to the tourism sector (The Guardian 2016). Australian officials later confirmed they had asked the report authors to remove any reference to the Great Barrier Reef, and any other Australian World Heritage sites.

No sections about any other country were removed (The Guardian 2016). Ironically, this Government intervention was exposed at the same time that the CSIRO climate science cuts were being announced (see Section 2.1) and the Great Barrier Reef was experiencing an unprecedented mass bleaching event, made 175 times more likely because of climate change (King et al. 2016).

BOX 2: ANATOMY OF A COVER-UP

- UNESCO and the Union of Concerned Scientists compiled a report on climate threats to World Heritage Sites, including the Great Barrier Reef and two other Australian sites.
- In May 2016 the report was released and none of Australia's World Heritage sites were included, despite the Great Barrier Reef undergoing the worst coral bleaching event in history.
- After scientists who reviewed the sections on the Great Barrier Reef questioned why it was cut, the Environment Department admitted publicly that it had asked for the reef to be omitted on "tourism grounds". Officials said Environment Minister Greg Hunt was not briefed on the issue.
- Journalists used Freedom of Information laws to access government correspondence with UNESCO about the report.
- Some information was released but was heavily redacted; the Government thus limited what the public could know by claiming the information could damage international relations.

The Federal Government censored a United Nations report, removing all references to Australia.

5.2 Track record of delaying and hiding emissions data

Over the past five years, the Federal Government has a track record of delaying the release of emissions data, projections or important climate policy information, and then publishing this information in the week before Christmas:

- In 2014, quarterly emissions data for June 2014 were released on Christmas Eve (6 months late).
- In 2015, quarterly emissions data for June 2015 were released on Christmas Eve (6 months late).
- In 2016, two sets of quarterly emissions data for March and June 2016 were released in the week before Christmas (almost 9 months late) (22 December 2016).
- In 2017, the Federal Government released delayed quarterly emissions data for June 2017, Emissions Projections 2017 and the 2017 Climate Policy Review all in the week before Christmas (19 December 2017).
- In 2018, the Federal Government released Emissions Projections in the week before Christmas.

Other emissions reports have been published late on Friday afternoons, including releasing quarterly emissions data for March 2018 on 28 September 2018, the eve of football finals and on a public holiday in Victoria (The Guardian 2018b). Freedom of Information documents obtained by the Australian Conservation Foundation showed that in this case, the March 2018 quarterly emissions data were finalised two months prior to publication, but were withheld. It is perhaps no coincidence that all the delayed reports have consistently found that emissions are rising (Section 3.2).

In response to the Federal Government's track record of withholding emissions data, the Senate passed a bill in October 2018 which now requires quarterly emissions data be provided to the Minister within five months of the end of the quarter, and that data are then to be published as soon as practicable, and tabled in Parliament within a set timeframe (The Parliament of the Commonwealth of Australia 2018).

The Federal Government has consistently released emissions data at times when it is likely to go unnoticed, such as Christmas Eve.

5.3 Changing reporting formats has disguised emissions growth

Quarterly updates on Australia's emissions dating from 2009 to 2017 consistently reported separate figures for Australia's greenhouse gas emissions, both including and excluding land-use emissions. But this format changed in the December 2017 update when emissions that excluded land-use emissions were not reported. This formatting change can be clearly seen when comparing this report (Table 3) to the previous report from September 2017 (Table 2).

Table 2: September 2017 Quarterly Emissions Report.

	Annual emissions (Mt CO_2-e)		
Sector	Year to September 2016	Year to September 2017	Change (%)
Energy – Electricity	193.6	184.8	-4.6%
Energy – Stationary energy excluding electricity	92.9	96.0	3.4%
Energy – Transport	96.7	99.6	3.1%
Energy – Fugitive emissions	49.4	53.5	8.4%
Industrial processes and product use	34.5	35.5	2.9%
Agriculture	69.9	72.0	2.8%
Waste	12.4	12.6	1.6%
National Inventory Total (excluding Land Use, Land Use Change and Forestry)	**549.3**	**554.0**	**0.8%**
Land Use, Land Use Change and Forestry[a]	-23.5	-22.1	5.8%
National Inventory Total (including Land Use, Land Use Change and Forestry)	**525.9**	**531.9**	**1.1%**

[a] includes Forest conversion, Forest land remaining forest land, Land converted to forest land, Grasslands (including Wetlands and Settlements) and Croplands.

This apparently subtle change to the way quarterly emissions data are reported hides important information about the status of Australia's actual greenhouse gas emissions. By no longer separately reporting on total fossil fuel emissions (excluding land-use emissions) in the quarterly update, the fact that Australia's greenhouse gas emissions from fossil fuels are now at the highest levels on record is obscured (Department of the Environment and Energy 2019; ndevr 2019).

The change in reporting has concealed record-high fossil fuel emissions.

The Federal Government has also switched the narrative to per capita emissions, and even although these emissions have come down (because of rapid population growth) Australia's per capita emissions remain among the highest in the world – 10th out of 180 countries (Global Carbon Project 2018). Furthermore, it's the total quantity of emissions that matters in terms of tackling climate change, and whether or not Australia meets its 2030 climate target.

Table 3: December 2017 Quarterly Emissions Report - emissions excluding land-use no longer separately reported.

	Annual emissions (Mt CO_2-e)		
Sector	Year to December 2016	Year to December 2017	Change (%)
Energy – Electricity	190.4	184.5	-3.1%
Energy – Stationary energy excluding electricity	93.4	96.9	3.8%
Energy – Transport	96.7	100.0	3.4%
Energy – Fugitive emissions	50.1	55.4	10.5%
Industrial processes and product use	34.8	35.8	2.9%
Agriculture	70.5	71.2	1.0%
Waste	12.5	12.6	1.0%
Land Use, Land Use Change and Forestry[a]	-22.8	-22.7	0.5%
National Inventory Total	**525.5**	**533.7**	**1.5%**

[a] includes Forest conversion, Forest land remaining forest land, Land converted to forest land, Grasslands (including Wetlands and Settlements) and Croplands.

6. Funding and Program Decisions

Numerous climate policies and programs have been axed or cut under the current Federal Government. Some of these policies include the Energy Efficiency Opportunities program and the national Renewable Energy Target, which commenced under the Howard Government.

Funding decisions have also raised questions over the Federal Government's commitment to action on climate change.

6.1 Climate-related programs closed or cut

After the Liberal-National Government was elected in 2013, a number of effective climate policies and programs have been closed or cut back. These include polices that were established under the Howard Government.

The Energy Efficiency Opportunities program was closed in June 2014. This program, which was established in 2006 under the Howard Government, was designed to reduce energy use and costs for medium and large energy users. A five-year review of the program found it saved participants $808 million in avoided energy costs, and reduced emissions by 8.2 $MtCO_2$ (Energy EXchange 2019).

For over a decade - from 2001 to 2014 - Australia's Renewable Energy Target (RET) had bipartisan support at the national level. In 2001, the Howard Government established the original target, which was then called the Mandatory Renewable Energy Target. The initial target legislated for 2% new renewable electricity by 2010 (legislated as 9,500 GWh of renewable electricity). In the lead up to the 2007 federal election, both major political parties committed to expanding the RET to 15-20% of electricity use. In 2009 and 2010 the RET was increased and then split into large-scale and small-scale renewable energy targets with the large-scale target set at 41,000 GWh. The RET was expected to reduce Australia's emissions by 58 $MtCO_2$ over 2015-2020, with greater reductions after 2020 (Climate Change Authority 2014b).

In the lead up to the 2013 federal election both major political parties, including the Liberal-National party, committed to retaining the RET (The Guardian 2014). In May 2015, the Federal Government wound back Australia's large-scale RET by 20% (from 41,000 GWh to 33,000 GWh). The cut followed eighteen months of investment uncertainty caused by the repeal of the Carbon Pricing Mechanism together with multiple reviews of the renewable energy target (a review led by Dick Warburton and two reviews by the Climate Change Authority). The Federal Government had initially proposed to cut the RET by more than a third (37%) to 26,000 GWh (Tahlberg and Workman 2016). As a result of the uncertainty, investment in large-scale renewable energy dropped 88% in 2014 (SMH 2015).

Figure 16: In 2015, the Federal Government tried to limit the support of renewables, such as wind and solar.

In 2014, the Federal Government also made a failed attempt to abolish other key climate and renewable energy bodies - the Clean Energy Finance Corporation (CEFC) and the CCA. In the 2014 Federal Budget, the CCA received no funding and ARENA's budget was cut by $1.3 billion over five years (Tahlberg and Workman 2016).

The Federal Government made two attempts to abolish the CEFC and the CCA (as part of a package to abolish the Carbon Pricing Mechanism). Both attempts were blocked by the Senate (Tahlberg and Workman 2016). In 2015, the Government then tried to limit the CEFC's remit to support renewable energy by issuing a draft directive to prevent the CEFC from investing in wind and rooftop solar (Tahlberg and Workman 2016).

In 2017, the Government sought to amend the CEFC's legislation to enable the corporation to invest in carbon capture and storage technologies but this bill has yet to pass the Parliament (Parliament of Australia 2017).

In 2016, the Government originally proposed to cut $1.3 billion from the Australian Renewable Energy Agency, a funding cut which would have effectively meant the end of ARENA, a body established to support research and development in renewable energy (Ison and Dunston 2016).

A deal between the Federal Government and the Opposition saw the proposed cuts wound back to $500 million. This enabled the agency to remain, but dramatically reduced its capacity (Hopkin et al 2016).

Other Federal Government announcements have had the effect of re-allocating large sections of the CEFC's total $10 billion funding to specific projects. $2.2 billion of the CEFC's budget has been allocated to specific purposes - $1 billion for the Smart Cities Investment Program, $1 billion for the Reef Funding Program, $200 million for the Clean Energy Innovation Fund (Department of Finance 2019).

6.2 Funding for projects of dubious credibility or benefit

In April 2015, at a time when the CSIRO and other scientific research organisations were facing deep budget cuts, the Federal Government budgeted $4 million over four years for Bjørn Lomborg to establish a new "consensus centre" in Australia (The Guardian 2015). While the proposed centre was not specifically designed to research climate change, it was supposed to be a policy think tank for discussion and economic analysis on issues relating to future Australian generations, Lomborg's views on climate change are highly controversial and have attracted substantial criticism (Climate Council 2015). After public objections, the University of Western Australia rejected the proposed centre (Dayton 2015). The centre was under consideration by Flinders University when the Federal Government quietly dropped the $4 million funding offer (ABC 2015).

In 2016, the Federal Government announced $15.5 million funding over four years for a new centre at CSIRO to promote growth in oil, gas, coal and uranium (RenewEconomy 2016). In the 2018-19 budget, the Government extended funding for the centre, called the National Energy Resources Centre, until 2022 (NERA 2018). As climate change is driven by the burning of coal, oil and gas, a centre working to promote these resources is antithetical to a responsible approach to tackling climate change.

In May 2018, the Federal Government announced almost $500 million in funding for the Great Barrier Reef. However, the funding announcement was targeted to addressing water quality issues, coral resilience, culling of the crown-of-thorns starfish (Figure 17), and community engagement, while failing to deal with the biggest threat that climate change poses to the Great Barrier Reef (Brodie 2018).

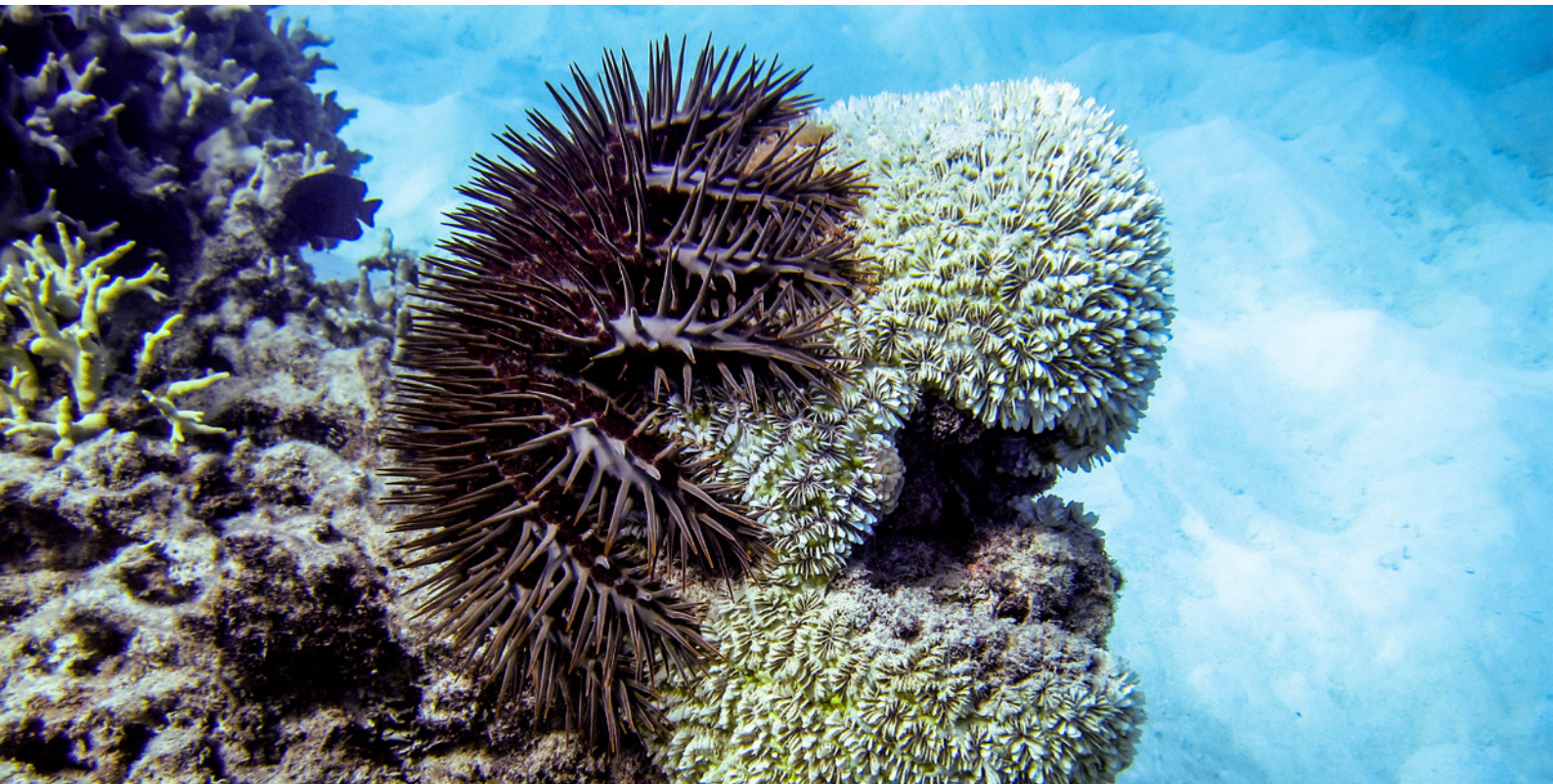
Federal Government allocated $4 million for a new 'consensus centre' led by Bjørn Lomborg who has highly controversial views on climate change.

$443 million Federal Government package to protect the Great Barrier Reef ignores the biggest threat to the reef – climate change.

There have been additional questions regarding the decision to allocate $443.3 million of this funding to the Great Barrier Reef Foundation without a competitive tendering process. This decision was subject to an audit by the Australian National Audit Office (2019) and an inquiry by the Environment and Communications References Committee of the Senate (Commonwealth of Australia 2018). The Senate Committee recommended unspent Great Barrier Reef Foundation partnership funds be returned and used for projects to protect and preserve the reef. The Senate Committee also recommended:

> *"that the Commonwealth Government take steps to address and effectively tackle climate change as an underlying cause of economic, social and environmental damage to the Reef and the Australian environment more broadly"*
>
> - (Commonwealth of Australia 2019a).

Figure 17: The Great Barrier Reef funding announcement ignored climate change, instead focusing on issues such as culling of the crown-of-thorns starfish.



7. Charter of Integrity

The Climate Council will establish a 'Charter of Integrity' to track and monitor Australian Federal Government climate performance, specifically around issues of accountability, transparency, timeliness and accuracy.

The goal of this Charter is for Australia to become a world leader in transparent emissions reporting, and to inform public understanding of the importance of accountability and climate change policy.

The Charter's guiding principles will include, but are not limited to:

1. Ensuring the timely release of quarterly emissions data that are transparent and available in a consistent spreadsheet format.

2. Focus on emissions from energy, industrial processes and product use, agriculture, transport and waste, and include subcategories (i.e. Kyoto Protocol format).

3. Separately report land-based / LULUCF emissions in quarterly emissions data complete with uncertainty range.

4. Clearly report how emissions are tracking on a year-to-year basis. Shifts in emissions on a quarterly basis should not be considered indicative of a trend change in the emissions profile of Australia.

5. Disallowing the use of carryover credits for meeting emissions reduction targets, thereby keeping with the spirit of international cooperation and global climate action.

6. The leadership selection and composition of independent climate review panels, such as the Climate Change Authority, shall be free of Government bias. The independent recommendations shall be science-based and free of Government interference.

7. Bolstering the credibility of the Climate Change Authority, or other equivalent agencies, by appointing world class climate science expertise in order for CCA recommendations to be aligned with what the science says is necessary to effectively tackle climate change.

8. Prohibiting censorship of climate change reports and for the Federal Government to consider the recommendations of authoritative, science-based national or international reports or assessments such as the Intergovernmental Panel on Climate Change.

8. Conclusion

Australia is now more than halfway between the baseline year (2005) and the target year (2030) for our national emissions reduction target. Yet Australia's greenhouse gas emissions are rising. Without action, Australia will not even achieve its inadequate 2030 target.

The Federal Government lacks a credible climate policy, and there have been numerous instances of climate censorship, misleading claims and misleading accounting of greenhouse gas emissions over the past five years.

Australians are experiencing worsening climate impacts with no reprieve in sight as global greenhouse gas emissions continue to rise. Immediate steps need to be taken by the Federal Government to tackle Australia's rising emissions and get Australia's climate policy back on track to join the global effort to meet the Paris targets.

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