



darebin climate action now

alphington - fairfield - northcote - preston - reservoir - thornbury

May 5, 2017

Dear Sir/Madam

2017 Australian Government Climate Change Policy Review

Thank you for the opportunity to provide a submission to the review.

This submission from **Darebin Climate Action Now** is endorsed by the following community climate groups:

Yarra Valley Climate Action Group
Centre for Climate Safety
Frack Free Geelong
Climate Action Monaro
Coffs Coast Climate Action Group
Baby Boomers for Climate Change Action
Western Region Environment Centre
Yarra Climate Action Now
Locals Into Victoria's Environment (LIVE)
Warrandyte Climate Action Now
Wodonga Albury Towards Climate Health (WATCH)
Journeys for Climate Justice
Eurobodalla 350.org
Climate Action Canberra
Dandenong Ranges Renewable Energy Association Inc
Citizens Own Renewable Energy Network Australia (CORENA)
Transition Towns Maroondah
Stonnington Climate Action Network
Geelong Sustainability
Psychology for a Safe Climate
Lighter Footprints
Climate Action Hobart
Ararat Greenhouse Action Group Inc.
Macedon Ranges Sustainability Group
The Sustainable Engineering Society
Wide Bay Burnett Environment Council Inc
Climate Action Moreland
Bayside Climate Change Action Group
St John's Wood Sustainability

Yours sincerely

Carol Ride, Assistant Convenor,
Darebin Climate Action Now
DarebinCAN@gmail.com

www.DarebinCAN.org.au

PO Box 27 Fairfield 3078

Submission to 2017 Australian Government Climate Change Policy Review

This submission covers the following:

- **Overview**
- **The earth is already too hot and global warming is already dangerous.**
- **We can burn no more carbon for +1.5°C target.**
- **Worse news: The door to less than +2 °C is rapidly closing.**
- **What action is needed?**
- **The Government must declare a climate emergency and enact an emergency speed transition.**
- **Showing the way.**
- **What is missing is leadership.**

Overview

This review aims to ensure the Government's policies *remain effective in achieving Australia's 2030 target and Paris Agreement commitments.*

We dispute the assumption in the terms of reference that the government's policies have been effective in achieving Australia's 2030 target, or our Paris commitments. There is a major discrepancy between the 26 to 28 per cent emissions cuts Australia has pledged, and our commitment under the Paris Agreement to limit global warming to well below +2°C and pursue efforts to keep warming under +1.5°C.

Tragically, the emission reductions commitments of Australia and other nations do not even come close to keeping global temperature rises below the agreed limits. In fact, even if every nation in the world complies with the Paris Agreement, the world will heat up by as much as +3.5°C by 2100¹.

Australia has a clear national interest in supporting the agreement, as acknowledged in the Australian National Interest Analysis² appended to the Paris Agreement document. Yet our nation's current intended commitment to reduce emissions by 26 to 28 percent below 2005 level by 2030 is a shamefully inadequate national effort, and reflects a failure to come to terms with the climate crisis and the urgency and scale of transformation needed now.

We strongly urge the government to set serious emissions reduction targets consistent with the alarming message from climate science. The time has passed for incremental small scale change spread over decades till the mid-century or beyond. We are out of time for using gas as a 'transition' fuel, or for new coal, oil or coal seam gas. We must stop all land clearing and deforestation, and restore and protect our natural ecosystems so that Australia becomes a carbon sink not a source of emissions. We must end fossil

¹ <https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii>

² <http://www.aph.gov.au/~media/02%20Parliamentary%20Business/24%20Committees/244%20Joint%20Committees/JSCT/2016/Paris/Paris%20Agreement%20National%20Interest%20Analysis.pdf?la=en>

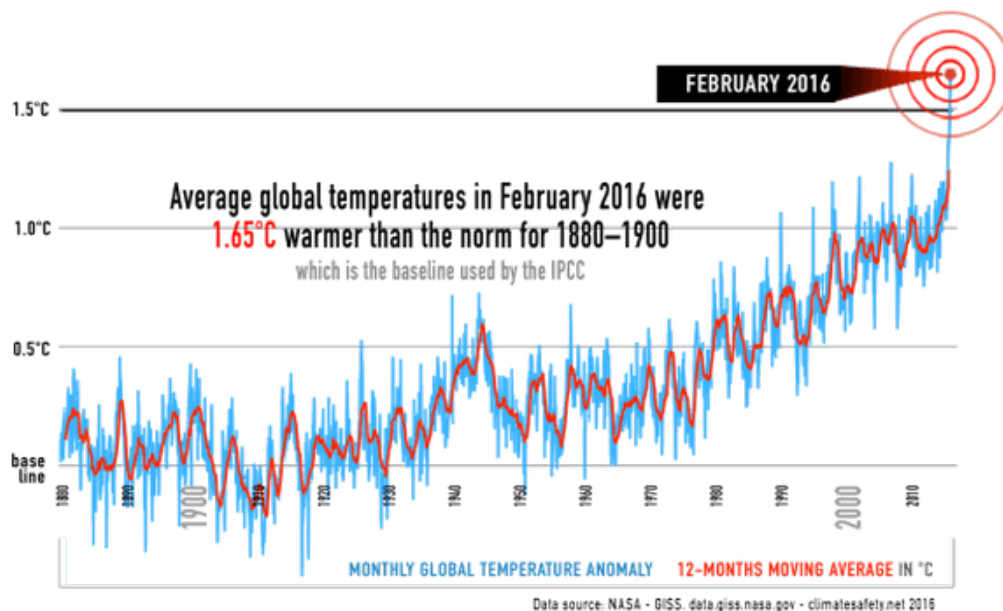
fuel subsidies, fossil fuel political funding, and scaremongering about renewable energy. Australia's energy system is outdated, polluting, poorly managed and inefficient. We have the technology and knowledge now to rapidly repower the country with clean renewable energy, reboot our failing electricity system and remove the roadblocks holding back the renewables boom.³

A whole suite of transformative measures is required to be integrated across all states and territories, and all sectors of the economy in recognition of what climate scientists are telling us.

We must recognise we are in a climate emergency and face up to this. We need strong leadership at the political level that takes up this challenge to lead our nation through an emergency 10-year transition to a zero emissions economy, accompanied by measures to draw down carbon dioxide from the atmosphere. Practical plans detailing the necessary changes in all sectors of our economy are available. We need strong leadership to implement these changes at emergency speed. In this way, Australia could play its part in a 'meaningful' effort in what is in our 'national interest to support global action'⁴.

"Even if all of the world's nations meet the pledges they made in the Paris accord, carbon dioxide is currently on a path to hit 500 or 600 parts per million (ppm) by century's end—a path if not to hell, then to someplace with a similar setting on the thermostat," Bill McKibben.⁵

The earth is already too hot and global warming is already dangerous.



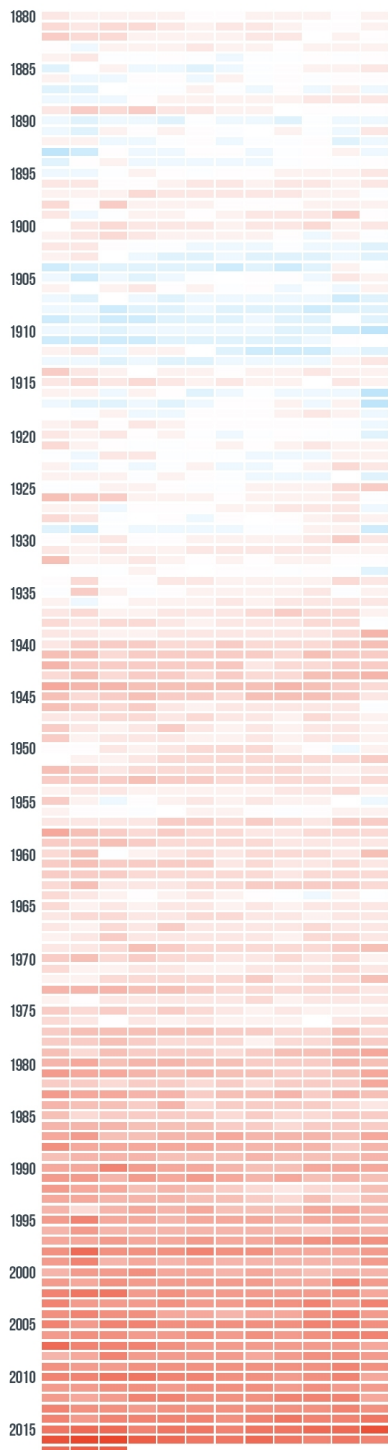
³ http://cdn.getup.org.au/1499-Homegrown_Power_Plan_-Full_Report.pdf

⁴ <https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii>

⁵ *ibid*

Climate Change is Rewriting History Books

There hasn't been a cool month in 628 months



Source: NASA GISS & NOAA NCEI global temperature data averaged and adjusted to early industrial baseline (1851-1910). Data as of 04/19/17

CLIMATE CENTRAL

1. Temperature shocks

We are already experiencing dangerous climate change. The community was shocked to hear of the extensive bleaching of the Great Barrier Reef in 2016, when temperatures spiked in January and February to +1.65°C above the pre-industrial baseline of 1880-1909⁶ with El Niño contributing about 0.2°C. Further bleaching in previously unaffected areas has been recorded in April 2017 indicating that the reef is in serious danger of not recovering because of the unprecedented bleaching events in consecutive years. The government's own Great Barrier Reef Marine Park Authority⁷ states that current bleaching highlights the importance of urgent global action on climate change.

Climate change is rewriting history books. In March 2017 was 1.3°C above the pre-industrial average. More notably, March 2017 marks a whopping 627 months in a row of warmer than normal temperatures. If you were born after December 1964, you've never experienced a month cooler than average on this planet. The adjacent graphic represents each month from 1880 to 2015 by a graded coloured box. Cool blues have been disappearing and are being replaced by a wave of unending heat⁸.

Severe weather events such as storms, floods and bushfires are happening more frequently at home and across the globe. In March this year Cyclone Debbie wrought havoc on farmers. Ironically many Queensland farmers have recently been suffering from drought. Storms are uprooting trees and threatening our power transmission security. Huge costs in cleanups and repairs following bushfire, cyclones, flood and storm damage are stretching budgets and our emergency workers. Icecap and glacial melting is causing sea level rises and displacement of whole communities in our neighbouring island states. Warming oceans are

⁶ <http://www.climatecodered.org/2016/03/mind-blowing-february-2016-temperature.html>

⁷ <http://www.gbrmpa.gov.au/media-room/coral-bleaching>

⁸ <http://www.climatecentral.org/news/628-months-since-the-world-had-cool-month-21365>

impacting on fisheries and destroying the rich biodiversity of our oceans and reefs.

Climate change is recognised by US military and policy makers as a threat to global security, as illustrated in the recent ABC Four Corners (20.3.17) documentary *The Age of Consequences*.⁹

2. Tipping point shocks

Some decades ago, a +2°C limit on warming was thought to likely to keep us safe from major climate tipping points. However major tipping points have already been triggered and others are close to being triggered at only +1°C. One of the most significant research findings in 2014 was that the tipping point for the collapse of the West Antarctic ice sheet has already passed. Scientists found that:

*“the retreat of ice in the Amundsen Sea sector of West Antarctica was unstoppable, with major consequences – it will mean that sea levels will rise 1 metre worldwide... Its disappearance will likely trigger the collapse of the rest of the West Antarctic ice sheet, which comes with a sea level rise of between 3–5 metres. Such an event will displace millions of people worldwide”.*¹⁰

What was also significant was the strong reaction to this news from the climate science community, because it represented a clear case of a tipping point having already occurred. Tipping points are generally considered to be long term in nature. Dr Malte Meinshausen called the evidence “a game changer”, and “a tipping point that none of us thought would pass so quickly”; noting that “now we are committed already to a change in coastlines that is unprecedented for us humans”.¹¹

Arctic tipping points have been crossed¹² for sea-ice-free summer conditions, with severe consequences for the future stability of permafrost and frozen methane stores. As ice sheets retreat this accelerates global warming because of diminished ice reflectivity — Earth’s albedo — so essential for cooling the planet.

3. Sea level threats

In 2016, 400ppm of atmospheric carbon dioxide was permanently passed, and is increasing at approximately 20ppm per decade.¹³ What is most troubling is that carbon dioxide (CO₂) is increasing at a rate 100 times faster than anything observed in ice core records that go back 800,000 years¹⁴.

⁹ <https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0ahUKEwj-nMPC6mTAhXlu7wKHQHTDYgQtwlLzAC&url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DhQvx12loPoE&usq=AFQjCNHknsa4y7WgMBh0DA43iplC1okpYA&sig2=kDTEZUt5kTat7-Uwk3VHmg>

¹⁰ Rignot, Mouginot et al (2014) “Widespread, rapid grounding line retreat of Pine Island, Thwaites, Smith, and Kohler glaciers, West Antarctica, from 1992 to 2011”, *Geophysical Research Letters* 41:3502–3509;

¹¹ A Climate Game Changer <https://vimeo.com/97926131>

¹² Livina and Lenton (2013) “A recent tipping point in the Arctic sea-ice cover: abrupt and persistent increase in the seasonal cycle since 2007”, *The Cryosphere* 7:275-286; Maslowski, Kinney et al (2012) “The future of Arctic sea ice”, *Annual Review of Earth and Planetary Sciences* 40:625–654

¹³ <http://www.globalcarbonproject.org/carbonbudget/15/hl-full.htm#atmosphere>

¹⁴ <http://research.noaa.gov/News/NewsArchive/LatestNews/TabId/684/ArtMID/1768/ArticleID/11900/Carbon-dioxide-levels-race-past-troubling-milestone.aspx>

In the early-to-mid Pliocene, about three million years ago, CO₂ levels were very similar to the levels today. This era is considered a bellwether for what future climate might be like. Sea levels were 25 metres higher: forests replaced tundra as trees marched toward the North Pole. The extent of the Greenland ice sheet and West Antarctic ice sheet was severely reduced¹⁵.

Long-term sea level rise of this scale would submerge parts of Australia on which 25-50% of the population lives. Even a 2 metre sea-level rise with a 1 metre storm surge would devastate Melbourne central and the bayside area¹⁶.

Why are we so complacent about risk? Are our leaders in denial about the scale of the climate crisis? Or are they in what is termed *soft denial*¹⁷ where there is acknowledgement of the dire state of the global climate (perhaps behind closed doors), while remaining disconnected from appropriate responses to what is an existential emergency?

We can burn no more carbon for +1.5°C target

The Paris Agreement inserted the +1.5°C aspirational target into its goals. But given that the earth is already too hot, it is alarming that there appears to be dangerous governmental complacency that the Paris Agreement goals are achievable with incremental changes to current business-as-usual approaches.

The quantity of greenhouse gases currently in the atmosphere is already locking us into a temperature of +1.7°C¹⁸ and this will rise to approximately +2°C by 2030 if emissions proceed according to the commitments put on the table at the Paris discussions. According to Prof. Michael E Mann, one of the world's foremost climate scientists, we have already overshoot the +1.5°C limit¹⁹ because lags in warming from current emissions have not been taken into account.

Former NASA Climate Director and climate scientist, James Hansen states that unless rapid cuts to emissions begin soon, it will be increasingly difficult to limit warming to 1.5°C, or to decrease CO₂ concentrations to below 350 ppm, without using extraordinarily high cost negative emissions by extracting CO₂ from the atmosphere. He warns this cost leaves our young people with an almost impossible financial burden.

However, if 'rapid phasedown of fossil fuel emissions begins soon, most of the necessary CO₂ extraction can take place via improved agricultural and forestry practices, including reforestation and steps to improve soil fertility and increase its carbon content.'²⁰

¹⁵ ibid

¹⁶ Spratt, D (2016) Climate Reality Check, Third Edition. <http://breakthroughonline.org.au> p12

¹⁷ <http://neweconomicperspectives.org/2016/09/living-web-soft-climate-denial.html#more-10635>

¹⁸ http://www.huffingtonpost.com/entry/how-close-are-we-to-dangerous-planetary-warming_b_8841534

¹⁹ <https://www.theguardian.com/environment/climate-consensus-97-per-cent/2015/dec/30/why-we-need-the-next-to-impossible-15c-temperature-target>

²⁰ <http://www.earth-syst-dynam-discuss.net/esd-2016-42/>

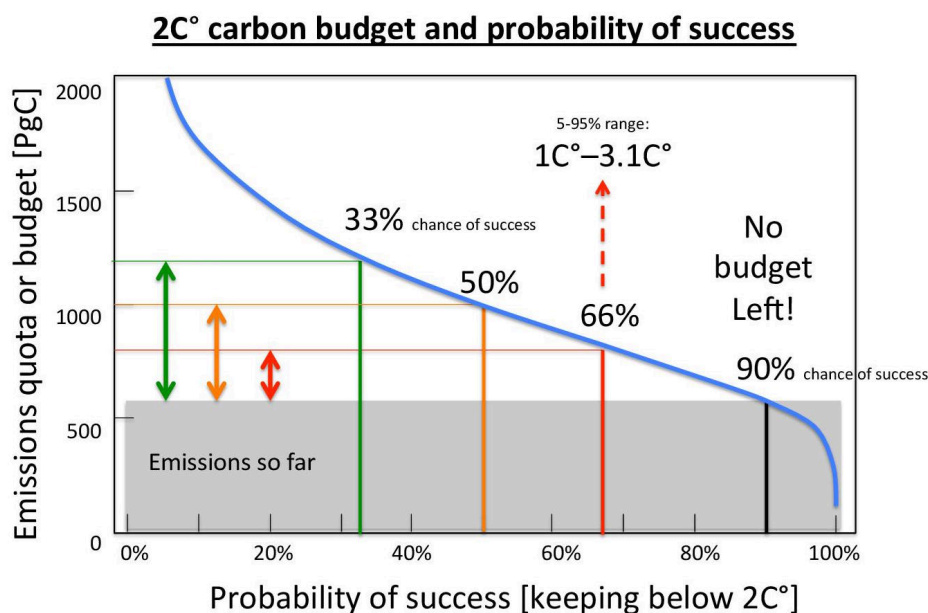
This once more underscores the need for immediate and urgent action by our political leaders, for the sake of the future wellbeing of our young people.

Australia has committed to keeping the door open to less than +1.5°C but few people understand what this means. It is clear that our chances of staying under +1.5°C of warming are a huge challenge and need an immediate response. We cannot afford to tip more carbon dioxide into the atmosphere when we need to decrease concentrations to below current levels. Nature cannot be fooled.

Worse news: the door to less than +2 °C is rapidly closing

“We have no carbon budget left for the +1.5 °C target and the opportunity for holding to +2°C is rapidly fading unless the world starts cutting emissions hard right now”²¹
 Prof. Michael Mann.

The IPCC reported that for around a “90% chance of staying under 2°C of warming the concentration [of atmospheric greenhouse gases] would need to be stabilised at, or below, 350ppm CO₂e*.”²² This means that we would need to stabilise atmospheric concentrations below current levels. (see figure 1)



Source: Raupach (2013, unpublished), based on Raupach, M. R., I.N. Harman and J.G. Canadell (2011) "Global climate goals for temperature, concentrations, emissions and cumulative emissions",

Figure 1: <http://www.climatecoded.org/2014/05/the-real-budgetary-emergency-burnable.html>

²¹ <http://www.climatecoded.org/2016/03/mind-blowing-february-2016-temperature.html>

* CO₂e is an abbreviation of 'carbon dioxide equivalent' and is the internationally recognised measure of greenhouse emissions

²² Anderson and Bows (2008) "Reframing the climate change challenge in light of post-2000 emission trends", *Phil. Trans. R. Soc. A* 366: 3863-3882, quoting Meishausen (2006) "What does a 20 C target mean for greenhouse gas concentrations? A brief analysis based on multi-gas emission pathways and several climate sensitivity uncertainty estimates", in "Avoiding dangerous climate change" (eds H. J. Schellnhuber, W. Cramer, N. Nakicenovic, T. Wigley & G. Yohe), pp. 253-279. Cambridge, UK: Cambridge University Press.

Thus whichever way we look at it, we have zero carbon budget remaining. (see figure 2.)

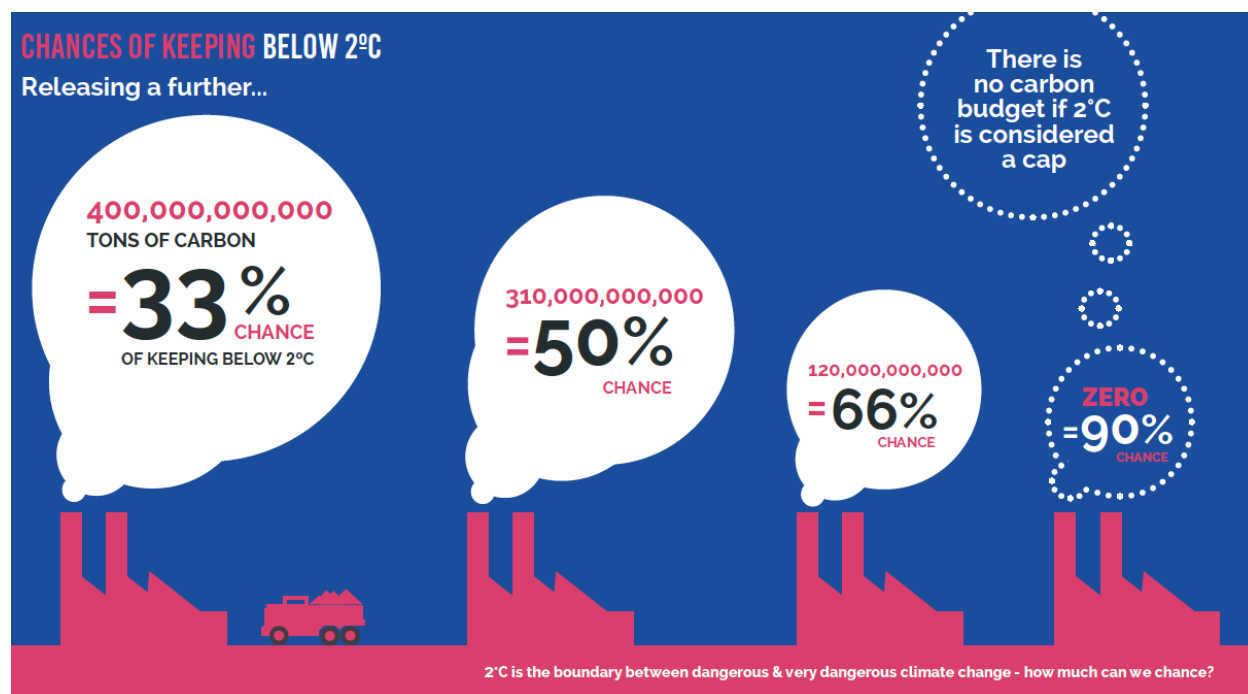


Figure 2: Spratt D. *Climate Reality Check* (2016) p5

It is sobering to recognise that no scenarios have yet been modelled for a +2°C limit without relying on yet to be developed large scale draw down in the second half of the century. Why do we play such risky games with the future of humanity? We wouldn't fly in a plane that had only a 90% chance of safe landing. Will we let the planet crash?

The IPCC's published carbon budgets underestimate the risks

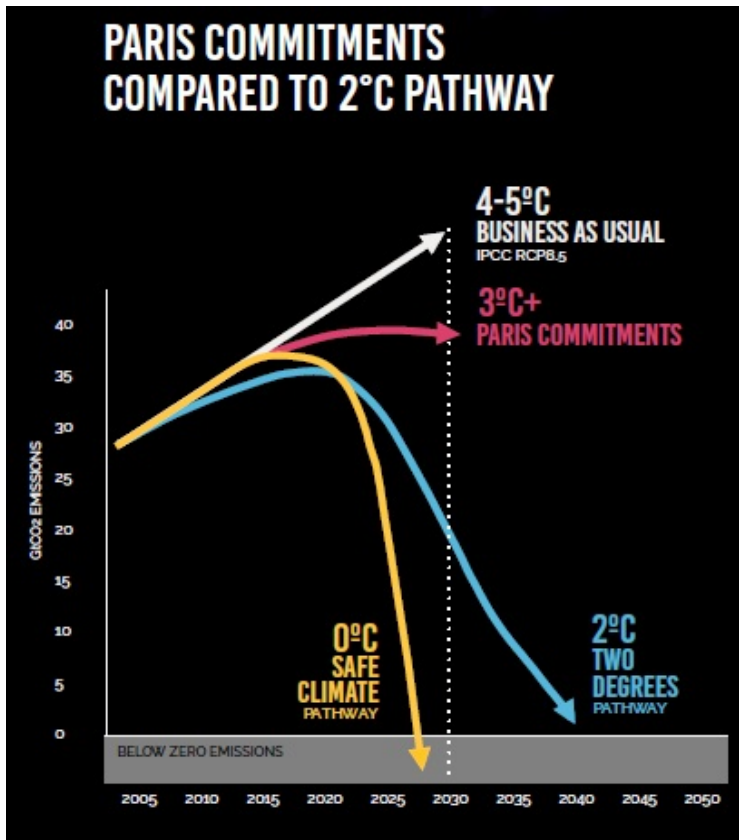
It is important to note that the IPCC's published carbon budgets include only 'short term feedbacks' and explicitly omit consideration of 'long term feedbacks', which are difficult to quantify and which were originally assumed not to be relevant in coming decades – at less than 2°C of warming.

However, long-term feedbacks are already happening, and will accelerate in the near-term, which undermines the accuracy of the IPCC's calculated carbon budgets.

Another important consideration, not included in the oft-quoted IPCC carbon budgets, is the effect of lags in the expression of stored warming. As far back as 2008, it was demonstrated that if just the then-current greenhouse gas level was maintained over time, it was sufficient to produce 2.4°C of warming, without taking long-term feedbacks into account.²³

²³ Anderson and Bows (2008) "Reframing the climate change challenge in light of post-2000 emission trends", *Phil. Trans. R. Soc. A* 366:3863–3882

What action is needed?



SOURCES: WBGU special report 2009; Boyd, Stern & Ward (May 2015); IPCC 2014; Climate Action Tracker; Philip Sutton in Spratt, D. *Climate Reality Check* Edition 3, p.5

We have been warned by Prof. Kevin Anderson that: “Two degrees of warming would take us to climatic conditions unprecedented in the period of human civilisation”²⁴. He says: ‘2°C represents the threshold between dangerous and extremely dangerous, rather than between acceptable and dangerous climate change’.

For most of human civilisation, during the last 11,000 years of the Holocene, CO₂ hovered around 278ppm, helping maintain the global climate in a relatively stable state conducive to agriculture and the growth of human populations.²⁵ This all changed in the 1850s when massive deforestation occurred. Then in the 1950s there was with a dramatic increase in burning of fossil fuels – coal to make electricity and steel, and oil for vehicles and manufacturing.

‘Given the current state of the atmosphere, getting back to Holocene-like greenhouse conditions would require a rapid end to human-caused emissions, and the deployment at massive scale of efficacious biological and other draw down measures to reduce the level of atmospheric greenhouse gases for many, many decades and perhaps a century or more.’²⁶

We need comprehensive plans for making the transition to a sustainable global system “that starts by determining what is necessary to achieve safe outcomes and then backcasts to design and develop viable solutions. While this proactive ‘critical-safety’

²⁴ Anderson and Bows (2011) “Beyond ‘dangerous’ climate change: emission scenarios for a new world”, *Phil. Trans. R. Soc. A* 369:20–44

²⁵ <http://research.noaa.gov/News/NewsArchive/LatestNews/TabId/684/ArtMID/1768/ArticleID/11900/Carbon-dioxide-levels-race-past-troubling-milestone.aspx>

²⁶ Spratt, D (2016) *Climate Reality Check*, Third Edition. <http://breakthroughonline.org.au> p14

approach is widely used to manage risk in complex industrial and military projects (e.g. aviation), it is not being used by governments to manage climate risk.”²⁷

There is no choice but to leave coal, oil and gas in the ground. Carbon emissions must be reduced to zero within a few years, not several decades, and we must safely draw down the excess carbon dioxide already in the atmosphere. We must rapidly transition from coal, gas and oil to 100% renewable energy, replacing fossil fuel jobs with jobs in renewable energy and energy efficiency.

Current government agencies such as the Clean Energy Finance Corporation (CEFC) and the Australian Renewable Energy Agency (ARENA) must be retained and expanded, together with further dedicated financial and business support for renewable energy research, development and deployment. Current policy on emission intensity levels could be ramped up at speed, as just one in a whole range of necessary instruments to assist the process of speedy emissions reduction and to encourage renewable investment. There is no place for carbon offsets which formalise a means of deceiving ourselves that we are reducing emissions.

We must give it all we have got with honesty and integrity!

The Government must declare a climate emergency and enact an emergency speed transition.

“Imagine there is a fire in your house. What do you do? ... Your senses are heightened, you are focused like a laser, and you put your entire self into your actions. You enter emergency mode.” Margaret Klein Salamon, Founder, The Climate Mobilization²⁸.

It is almost impossible to now keep the temperature increase below +1.5 °C or even +2°C with current approaches, says Ian Dunlop.²⁹ **“We have left it too late to solve the climate dilemma with a graduated response; emergency action, akin to placing economies on a war footing, remains essential.”**

We call on Parliament to initiate a society-wide mobilisation of a speed and scale not seen since World War II. We must work with other nations to devote all the resources necessary to preserve a livable planet and protect the vulnerable from the dangerous climate impacts already locked in.

A society-wide mobilisation to reach zero emissions at emergency speed and rapidly ramp up procedures to draw down the excess heat-trapping gases already in the atmosphere may sound impossible within the framework of current politics or business as usual. However, as Paul Gilding³⁰ has pointed out:

²⁷ A Realistic (Holistic) Approach to Climate Mitigation. <http://journals.sagepub.com/doi/pdf/10.1177/1946756716673640>

²⁸ <http://www.theclimatemobilization.org/>

²⁹ Spratt, D (2016) Climate Reality Check, Third Edition. <http://breakthroughonline.org.au>, p1

³⁰ Gilding, P. The Climate Mobilization Victory Plan p5, <https://drive.google.com/file/d/0Bze7GXvl3ywrSGxYWDVXM3hVUm8/view>

A mobilization on this scale is the only rational response to the level of economic, security and social risks posed by climate change. Anyone who looks at the evidence objectively would conclude that – and historians will look back and wonder why it took us so long to accept it. So be clear – a mobilization on this scale is simply inevitable, with the only question being when we get started.

Hard to imagine? Yes, it is.

But before we go there, you have to imagine the alternative. Without this response, we will see descent through cascading climate change induced crises with military conflict, accelerating costs, massive refugee flows, nations collapsing and global food crises as the world spirals down into economic and social collapse. This would inevitably require heavy government intervention and quite probably authoritarian rule to manage.

With that prospect unfolding, do you really think we will stand by and do nothing, but observe and talk about the difficulty of acting? Now that is “unrealistic” and that I really “can’t imagine”.

Showing the way

Melbourne-based climate think tank, Beyond Zero Emissions (BZE), have shown there are no technological or economic barriers to implementing effective climate solutions today. BZE’s Zero Carbon Australia (ZCA) reports comprise plans, issues and discussion papers, plus blueprints describing in detail – and often with costings – for a path for Australia to zero carbon prosperity in every sector. This includes zero carbon electricity, zero carbon land uses, Australia as a renewable energy powered export superpower, zero carbon industry (coming later in 2017), zero carbon buildings and zero carbon transport.³¹

ANU Researcher, Professor Andrew Blakers, has found wind, solar photovoltaics (PV) and off-river pumped hydro energy storage (PHES) would allow the National Electricity Market to reach 100% renewable electricity with high reliability and at modest cost. Wind and PV will replace retiring coal and gas plant at lower cost than the alternative replacement (new coal and gas).³²

UK leading climate scientist Professor Kevin Anderson³³ has proposed measures for the United Kingdom to begin rapid and deep emissions reductions. These provide an overview of the sort of regulation measures that could offer a model for the nation. They include strict energy/emission standards for appliances with a clear long-term market signal of the amount by which the standards would annually tighten, stringent energy/emission standards for industry equipment, stringent minimum efficiency standards for all properties for sale or rent, world leading low-energy standards for all new buildings, a moratorium on airport expansion and technological and operational standards for shipping.

³¹ <http://bze.org.au/zero-carbon-australia-recommendations-conclusions/>

³² <http://energy.anu.edu.au/files/100%25%20renewable%20electricity%20in%20Australia.pdf>

³³ Anderson, K. (2014) "Why carbon prices can't deliver the 2°C target", blog, 13 August 2013, <http://kevinanderson.info/blog/whycarbon-prices-cant-deliver-the-2c-target/>, accessed 19 May 2014

Professor Mark Jacobson, a civil and environmental engineering professor at Stanford University has spelled out how 139 countries can each generate all the energy needed for homes, businesses, industry, transportation, agriculture—everything—from wind, solar and water power technologies, by 2050.³⁴

These well researched plans provide the basis for measures which could be ramped up at emergency speed to foster the imagination, initiative and creativity of all Australia's citizens, providing full employment, citizen engagement and a sense of common purpose.

What is missing is leadership and vision.

Facts about the threat to humanity, the natural world, and the precious ecosystems on which we depend are unpleasant and create fear and resistance, but downplaying the risks is not the answer. Leadership is required to help us face the truth, so that we can address the scale of the problem. If the severity of the problem is not understood, there is no chance of planning for effective action and of gathering public support. **This is what we elect our political leaders to do, and once elected this is their responsibility — to take measures to provide security and wellbeing for their citizens.** We expect them to take a long-term view, using all available resources, to create a safe future for the generations that follow.

Within Australia, three local municipal councils in Melbourne, Yarra, Moreland and Darebin, are leading the way by declaring a climate emergency. As Mayor of Darebin Council, Kim Le Serf says “We have a group of councillors that understand what we're up against in terms of the climate challenge and we know that we are running out of time.” Darebin Council is developing measures consistent with the climate emergency within council practice.

The US Democratic Party platform³⁵ asserts: “We are committed to a national mobilization, and to leading a global effort to mobilize nations to address this threat on a scale not seen since World War II”. When in office, the party will convene a summit of the world's best engineers, climate scientists, policy experts, activists, and Indigenous communities to chart a course to solve the climate crisis.

US citizens (The Climate Mobilization)³⁶ have produced comprehensive explanations of the need for and practical implications of emergency climate action. Based on communicating the ‘climate truth’ the group's premise is that if people did recognise ‘that their children are profoundly threatened by runaway global warming- they would want to do everything possible to save humanity from this fate.’

These are such inspiring models of how Australia's government too could face the alarming truth about our human predicament and take up global leadership.

³⁴ <https://www.scientificamerican.com/article/139-countries-could-get-all-of-their-power-from-renewable-sources1/>

³⁵ http://www.theclimatemobilization.org/dnc_ww2

³⁶ www.theclimatemobilization.org/

We need parliamentarians, corporate and community leaders to show courage. Sadly, most seem to be infused with timidity and fear, just when we need them most. A recent report *Thinking the Unthinkable*³⁷ highlights the tremendous challenges for corporate and public service leaders, and sadly illustrates their shrinking away from responsibility to tackle unthinkable events — climate change capping them all. **We need our leaders to manage this challenge with courage and wisdom.**

When leaders demonstrate that they understand the problem and its implications for people's lives, and the community see that commensurate action is being taken, people will come to terms with the climate reality and the urgency of the task. People switch off or feel patronised when timidity and a relentless bright-siding infuse the public conversation, as if the community cannot bear the truth or are incapable of hearing it.

The public appears to be more prepared for the conversation than are our leaders are. Recent work by Melanie Randle and Richard Eckersley investigated the perceived probability of threats to humanity and different responses to them (nihilism, fundamentalism and activism) in the US, UK, Canada and Australia.

“Overall, a majority (54%) rated the risk of our way of life ending within the next 100 years at 50% or greater, and a quarter (24%) rated the risk of humans being wiped out at 50% or greater. The responses were relatively uniform across countries, age groups, gender and education level, although statistically significant differences exist. Almost 80% agreed “we need to transform our worldview and way of life if we are to create a better future for the world” (activism). About a half agreed that “the world’s future looks grim so we have to focus on looking after ourselves and those we love” (nihilism), and over a third that “we are facing a final conflict between good and evil in the world” (fundamentalism). The findings offer insight into the willingness of humanity to respond to the challenges identified by scientists and warrant increased consideration in scientific and political debate.”³⁸

So here is the great irony: people have got a fair, intuitive sense of what might be coming, but our leaders appear to be incapable of engaging with the perceived and well documented climate emergency.

Since the bleaching of the Great Barrier Reef began in 2016, ordinary people are much more aware of the seriousness of our situation. Without leadership from the Government, however, they are lost and confused. Our experience with our climate emergency declaration petitions (www.climateemergency.good, <http://climateemergencydeclaration.org/>) is that people are energised and relieved: “Yes of course the government should declare an emergency. The reef is bleaching, why are our leaders not doing anything?”

³⁷ <http://www.thinkunthinkable.org/report>

³⁸ <http://ro.uow.edu.au/buspapers/740/>



Image: XL Catlin Seaview Survey

THE EARTH IS ALREADY TOO HOT

IT'S TIME TO DECLARE A CLIMATE EMERGENCY

At the Paris climate talks, scientists and people from low-lying island states set 1.5°C of warming as a red line that must not be crossed.

However, earlier this year, the global average temperature spiked past 1.6°C of warming.

The bleaching of coral reefs around the world, increasing extreme weather events, the melting of large ice sheets and recent venting of methane from thawing permafrost make it abundantly clear that the earth is already too hot.

The future of human civilisation, and the survival of the precious ecosystems on which we depend, now hang in the balance.

There must be an immediate ban on new coal and gas developments and an emergency-speed transition to zero emissions.

We must begin the enormous task of safely drawing down the excess greenhouse gases already in the atmosphere.

We call on the new parliament to declare a climate emergency.

Philip Adams,
broadcaster

Kirsty Albion,
CEO Australian Youth
Climate Coalition

Paul Barratt,
former head Defence Dept.

Prof. Judy Brett,
historian

Dr Stephen Bygrave,
CEO Beyond Zero Emissions

Geoff Cousins,
President Australian
Conservation Foundation

Mary Crooks,
CEO Victorian
Women's Trust

Prof. Peter Doherty,
Nobel Laureate for Medicine

Ian Dunlop,
former Chair Australian
Coal Association

Prof. Tim Flannery,
palaeontologist
John Hewson,
businessman and former
Opposition leader

Prof. Ove Hoegh-Guldberg
IPCC coordinating lead author
and marine scientist

Prof. David Karoly,
atmospheric scientist

Prof. Carmen Lawrence,
former WA premier

Dr Colin Long,
Vic. Sec. National Tertiary
Education Union

Prof. Robert Manne,
political scientist
Christine Milne,
Global Greens Ambassador

Paul Oosting,
National Director GetUp

David Ritter,
CEO Greenpeace Australia

Prof. Peter Singer,
moral philosopher

Prof. Fiona Stanley,
epidemiologist

Dr John (Charlie) Veron,
pioneer coral researcher

Mark Wakeham,
CEO Environment Victoria

Bill McKibben,
author and co-founder 350.org

Sign the petition at www.climateemergencydeclaration.org

The campaign to declare a climate emergency is supported by • Baby Boomers for Climate Change Action • Centre for Climate Safety • Climate and Health Alliance • Climate Action Moreland • CORENA • COREM • Dandenong Ranges Renewable Energy Association • Darebin CAN • FED Up • Geelong Sustainability • Lighter Footprints • Psychology for a Safe Climate • Stonnington CAN • RSTI • WATCH | Authorised by Jane Morton, 12 Auburn Ave, Northcote 3070

The population will come on board when leaders lead. A Galaxy poll recently conducted by the Climate Institute shows that 67% want Australia to be a leader on climate change.³⁹ We need leadership within Australia and globally. It's time to stop playing political football with this life and death issue. The future of human civilisation and the precious ecosystems on which we depend hang in the balance.

Conclusion

Nothing short of emergency action can preserve a livable planet. The current Australian Government emission reduction targets and policies for 2020 and 2030 are clearly totally inadequate. While Australia has ratified the Paris Agreement, this is not a time for complacency nor deception that climate action is in hand. No time remains for incrementalism and half-measures. What is required is a massive reorganisation of society on a scale never before seen in peacetime. Leadership, honesty and courage are required.

This emergency transition must be planned while we still have time. Waiting for further catastrophe to signal the need for change will bring disorder, instability and huge loss to people's wellbeing - emotionally, socially and economically. We need plans that protect

³⁹ www.climateinstitute.org.au/climate-of-the-nation-2016.html

workers and communities as we retire fossil fuel industries; plans for communities to control energy systems to ensure price stability; plans for protection and restoration of carbon sinks and our loved natural places; protection of other species: protection for the most vulnerable in our community; respect for our Indigenous peoples and their knowledge and connection with the land; and assistance to our international neighbours who already bear the brunt of the climate consequences of our western consumptive culture and denial of our dependency on the natural world.

Australian scientists, technicians and researchers have a key role to play in international research, development and innovation, particularly into non-polluting processes for producing energy and essential goods, changes to agriculture, forestry and land use practices, waste reduction and management, sustainable building and energy efficient transport. Such innovation and focused research could provide jobs across all regions of Australia, with investment and trade opportunities in abundance.

A focus on ethical work that is crucial to the survival of humanity is enormously motivating and fulfilling. Citizens motivated by a sense of purpose are more likely to cope with the difficult and demanding circumstances that inevitably lie ahead with the climate changes already in the system.

With the highest per capita emissions in the developed world and a large historic climate debt we have a clear moral responsibility to act decisively. We have a moral obligation to our young people and all future generations to show international leadership by taking the strongest possible action. Half measures are of no benefit at this point in history.

Driving over the cliff slowly is not much different to driving over the cliff fast.

"It always seems impossible until it's done." Nelson Mandela