

**Submission
No 110**

INQUIRY INTO CLIMATE CHANGE (NET ZERO FUTURE) BILL 2023

Organisation: Australian Forests and Climate Alliance

Date Received: 27 October 2023



The Australian Forests and Climate Alliance

Submission: Climate Change (Net Zero Future) Bill 2023

Objects of the bill

- a) to establish guiding principles for action to address climate change*
- b).to set targets for the reduction in net greenhouse emissions in NSW by 2030 and 2050*
- c) to set an objective for New South Wales to be more resilient to a changing climate (the adaptation objective)*
- d) to establish the Net Zero Commission to independently monitor, review and report on progress in New South Wales towards the 2030 and 2050 targets, the adaptation objective and other matters*
- e) to provide for other minor and consequential matters*

AFCA will address each object after preliminary comments below.

Legislating in 'a state of flux' – a swiftly changing arena

The only chance for surviving almost out of control climate change is as much emission reduction *simultaneous with as much atmospheric carbon removal* as possible. As the carbon budget is busted any jurisdiction with an opportunity to adopt new relevant policy or change legislation must do so now starting from the reality of where we are at, which is, in a climate emergency of unknown dimensions. That is to say: we have entered the uncharted territory warned about when international policy makers decided to set a limit of 2 degree global warming and aim for 1.5. The uncharted territory has been reached without hitting the 2 degree threshold, now understood to be too high.

[We are effectively already at 1.5 though of which too many policy makers and legislators are unaware.](#) From the American Institute of Biological Sciences [2023 State of the Climate Report](#)

We are venturing into uncharted climate territory. Global daily mean temperatures never exceeded 1.5-degree Celsius (°C) above preindustrial levels prior to 2000 and have only occasionally exceeded that number since then. However, 2023 has already seen 38 days with global average temperatures above 1.5°C by 12 September—more than any other year—and the total may continue to rise. Even more striking are the enormous margins by which 2023 conditions are exceeding past extremes (figure 1). Similarly, on 7 July 2023, Antarctic sea ice reached its lowest daily relative extent since the advent of satellite data, at 2.67 million square kilometers below the 1991–2023 average (figure 1a). Other variables far outside their historical ranges include the area burned by wildfires in Canada (figure 1f), which may indicate a tipping point into a new fire regime.

The NSW Climate Change (Net Zero Future) Bill 2023 must therefore be framed for climate emergency leading so that other states and the Federal government supersede previous approaches, revise their stances and follow suite. Because emissions are global NSW, then Australia, has no option but to become a leader with the common sense to legislate climate emergency response. This is the only option now.

This endnote¹ provides the analysis of why we are effectively at 1.5 degree. Even the characteristically under-stated IPCC agrees **current** nationally determined commitment (NDCs) won't keep us below the danger threshold of 2 (now known to be too high to be considered a safety valve threshold), let alone the now lost hope of staying below 1.5.¹ We are on track to 2.7 – 3 degrees. So everything has to be ratcheted up, immediately. Only the most radical action now might restrict global temperature to 2 degrees. Having been triggered the tipping points warned about have caused cumulative impact as predicted, but swifter than anticipated, owing to unknown feedback loop consequence. And the tipping points are falling like dominoes. This week the sub terrestrial Antarctic ice sheet succumbed. Thus triggered, the tipping points create exponential impact meaning we are now in the uncharted territory, perhaps, but maybe not quite yet out of our control.²

What we do know, right now, is that Australia is again on fire and although there has been little mention beyond shocking extinction statistics we are facing imminent ecosystem collapse. This is occurring most obviously in NSW and we will demonstrate this in the section of our submission dealing with forests. We consider it unlikely - if the public were made aware of the true level of danger - that the NSW government would receive criticism that outweighs praise, by demonstrating willingness to lead on required declaration of climate emergence and nominating a target of nil – **not net zero**. Many across NSW are only too aware of the danger they are in, from drought, fire, flood and they want protection. Aim high, achieve something in the thin sliver of time left. Aim low – achieve nothing, miss the chance to prevent the next 'tipping' breach that could be fatal for this vulnerable continent. Explained clearly, the public understand.

We urge the NSW government to declare climate emergency as the basis of its climate action policy and legislation and to lead in the hope others follow, including – most importantly - this Federal government.

Addressing basic premises – reforming false assumptions/methodology

We applaud the NSW government for attempting to legislate for strong CC action, but because the purpose of this consultation is to ensure the government gets it right and the time for feedback is short, we urge you to seek expert advice from parties we refer you to throughout this submission as we are certain that the bill needs thorough revision.

Right now *debates, exposes and reforms* are taking place in highest echelons of climate science and policy development. International forums where standards and approaches are agreed upon are proposing reforms of concepts and methodologies underpinning nationally determined commitments (NDCs). There is alarm that entrenched flawed assumptions and approaches are

¹ https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf

² [2023 State of the Climate Report](#)

inhibiting the radical action needed. **This includes the urgent need for reform of carbon accounting methodology that is current standard practice.** NSW needs to be abreast of the reforms to lead; it must not legislate concepts and terminology no longer fit for purpose in this swiftly changing arena. The flawed strategies that have led us to the dangerous position we are in have to be abandoned if we are to survive what is now uncharted territory.³ One of the most dangerous and outmoded concepts that has led us to this situation is the concept that we can lower emissions with a target of [Net Zero 2050](#), the very concept of net zero as opposed to real zero being now termed [Net Zero: A Dangerous Illusion](#).

We attempt explanation of this but urge you to seek further (expert) advice per recommendations in the discrete sections of this submission. NSW must become the first jurisdiction in Australia to take the bull by the horns and call an emission 'an emission' and not try to 'offset' its significance. Unless a reality based approach is taken and promoted, NSW legislation will be contributing to the perpetuation of a carbon accounting approach that allows ongoing emissions. As the bill stands an *Independent Net Zero Commission* would be reviewing, monitoring and reporting via a flawed carbon accounting methodology inadequate targets based on illusory concepts.

The government should re-frame the Climate Bill to what the real aim must be; no emissions. The government can then choose to monitor, review and report on the effectiveness of the strategies taking us to nil, or carbon neutrality, asap.

We will refer you to Appendices of evidence to support these opinions. We hope, problematic as it will be politically, and administratively, that you take serious note and re-draft this bill which is so vital.

The Objects

a) to establish guiding principles for action to address climate change

We don't have enough time to say let's make a bill that will establish guiding principles. Guiding principles should not be established by the bill but inherent within them, guiding the rest of the bill.

The First Guiding Principle should be Climate Emergency

"This bill acknowledges we are in Climate Emergency and legislates within this context."⁴

This would facilitate the radical action needed immediately, per principles of emergency legislation. We recommend Climate Emergency Explored ⁵, an extract from which appears below.

³ The 2023 state of the climate report: Entering uncharted territory

⁴ https://www.breakthroughonline.org.au/_files/ugd/148cb0_eeb612ebbede44fda1455ec0bf54421e.pdf

⁵ https://www.breakthroughonline.org.au/_files/ugd/148cb0_eeb612ebbede44fda1455ec0bf54421e.pdf

Emergency mode

An emergency declaration shows that the government rates the problem as very serious, that priority will be given to resolving the crisis, that we are all in the crisis together and that, officially, “business as usual” and “reform as usual” don’t apply for the duration of the crisis. Here are some characteristics of emergency mode:

Clarity of purpose In a bushfire, one clear goal is to save all human life. With climate warming, the purpose of emergency action is to protect all people, societies and ecosystems. This is not the case with the present climate policymaking.

Risk management An emergency response starts by fully assessing all the risks and potential damage, especially the “high-end” and existential risks which would be devastating for human societies. Special precautions are required if the increased likelihood of dire climate impacts are to be adequately dealt with.

Full & frank communication Emergency mode is a whole-of-society effort which requires an aware and motivated population. In most cases it also requires political bipartisanship. A frank discussion of the threat, the response and what that means for the society is critical for building and maintaining active commitment across the community.

Highest priority During an emergency, the highest priority of the society is to deal with the crisis in hand, and sufficient resources will be applied in order to succeed. Climate Councillor Prof. Will Steffen says that getting greenhouse gas emissions down fast has to be the primary target of policy and economics with something “more like wartime footing” to roll out renewable energy and dramatically reimagine sectors like transportation and agriculture “at very fast rates”.¹⁵

Government leadership All rapid, large-scale transformations have strong government leadership in planning, coordinating and allocating resources. Only the national government has the society-wide responsibility and capacity to plan, direct resources, develop labour skills, provide funding from taxation, manage savings and investments, coordinate innovation efforts, and set a regulatory framework for effective emergency action. To do this, the prevailing neoliberal ideology (privatisation, deregulation, lowering of taxes, reduced government spending, and so on) must be put aside.

Physical transformation More than anything else, climate emergency mobilisation is about the transformation of the physical economy at great speed, delivering an integrated package of solutions for a safe-climate economy, zero emissions and large-scale carbon dioxide drawdown, plus critical research and development of solutions to close the knowledge gaps.

Fairness We now face large-scale climate disruption: either planned by way of an emergency transition to restore a safe climate, or much worse unplanned chaos because social and physical system failure will inevitably occur as warming intensifies. This dislocation requires a focus on fairness — both internationally and within the nation — and that the burden of transformation is fairly shared. Without a sense that the emergency and the changes are both fair and necessary, the public mandate for such change is unlikely to be built or maintained.

Normal mode	Emergency mode
Crises are constrained within business-as-usual mode	Society engages productively with crises, but not in panic mode
Political media management and ‘politics as usual’	The situation is assessed with brutal honesty
No urgent threat is perceived	Immediate, or looming, threat to life, health, property, or environment is perceived
Problem is not yet serious	High probability of escalation beyond control if immediate action is not taken
Time of response is not important	Speed of response is crucial
The crisis is one of many issues	The crisis is of the highest priority for the duration
A labour market is in place	Emergency project teams are developed, and labour planning is instituted
Budgetary ‘restraint’ is shown	All available/necessary resources are devoted to the emergency and, if necessary, governments borrow heavily
Community and markets function as usual	Non-essential functions and consumption may be curtailed or rationed
A slow rate of change occurs because of systemic inertia	Rapid transition and scaling up occurs
Market needs dominate response choices and thinking	Planning, fostering innovation and research take place
Targets and goals are determined by political tradeoffs in a culture of compromise	Critical targets and goals are not compromised because failure is not an option
There is a lack of national leadership, and politics is adversarial and incremental	Bipartisanship and effective leadership are the norm

This would allow the bill legislative pre-eminence, obviously more practical at a Federal level but possible could occur at state level. This requires exploration. ⁶

At the least the bill and the proposed commission (should it become as we recommend a **zero**, not a *net zero* emission commission) should be embedded with other aspects of NSW legislation so that it becomes a paramount feature of government determinations.

Despite being legislated this bill can't be effective if it can't influence all governmental actions.

In a military emergency, such as war, it's standard practice to allow at least temporary over-riding legislation to ensure all areas of government are moving together to the same end and not constraining each other. The public understand that we are living in a climate emergency and want action that is decisive, comprehensive and therefore capable of having an impact. Climate Change is more dangerous as, actually more dangerous than any war we can imagine. It threatens life on earth and it's not only imminent. It's here. This bill needs to be a climate action emergency (not futures bill).

Can the NSW government afford to be so bold? The following survey,⁷ now 4 years old shows that the public want an emergency response. Since these results, after the catastrophic climate change induced fire season of 2019 when over 3 billion creatures were lost, vast swathes of landscape destroyed and there has been an incalculable impact on those who survived, many people across NSW and in other parts of Australia are in a state of trauma, in fear of fire, drought, flood or another unpredictable climate change impact.

It won't be difficult to explain a Climate Emergency Stance to the Public: The government explains that to deal with the emergency of climate change zero emissions must be aimed for across all sectors. Only sectors where emission reduction is currently impossible which are utterly essential, can emit. The concept of allowing avoidable emissions through assumed sequestration pathways is ineffective, inefficient and no longer responsible because there is no time left for slowly phasing out via offsetting mechanisms.

The two figures below demonstrate what the public want and what an overwhelming number of scientists now insist must happen, i.e. a climate emergency response. The first figure was 2020 survey results. Emergency measures will be even more palatable now as measures to alleviate danger from bushfire and lack of water. The figure below is what an overwhelming number of scientists insist must now happen.

⁶ Apparently the Victorian Climate Change Act (Part 3) embeds climate consideration into 7 other acts. There is almost certainly a better model internationally. The planning committee should seek advice on what can be the strongest form of emergency legislation that will allow climate change action to be the core business of NSW until the emergency is resolved.

⁷ [Climate emergency explored \(nla.gov.au\)](https://www.nla.gov.au/climate-emergency)

Public wants emergency action

The Australia Institute

Research from The Australia Institute has found that a clear majority of Australians agree the nation is facing a climate emergency requiring emergency action and that, in response, governments should mobilise all of society like they did during the world wars.¹⁹

The polling was conducted in November 2019, during the 2019–2020 bushfire season but before the devastating fires in December 2019 and January 2020.

In particular it found that:

- Two in three Australians (63%) agree that governments should mobilise all of society to tackle climate change,

declare a climate change emergency were Green Party supporters, Pacific peoples, people aged 18–34, Labour Party supporters and Māori. Those who were more likely to be against were National Party supporters, men aged 55 and over and New Zealand Europeans.²⁰

City Of Darebin

In December 2016, the City of Darebin in Melbourne's inner north became the first council to recognise the climate emergency. Subsequently, it contracted an agency to advise on communicating the council's stance.

The agency carried out quantitative testing of five different, short messages of less than a hundred

Sample: 1424 Australians Polled 1-15 November 2019	Coalition Agree (disagree)	Labor Agree (disagree)	Ind/Other Agree (disagree)	Greens Agree (disagree)
Australia is facing a climate change emergency and should take emergency action	54% (37%)	79% (12%)	55% (22%)	86% (7%)
Governments should mobilise all of society to tackle climate change, like they mobilised everyone during the world wars	56% (32%)	74% (13%)	48% (25%)	80% (7%)

The Australia Institute poll November 2019

like they mobilised everyone during the world wars, including 25% who strongly agree. A majority of Coalition (56%), Labor (74%) and Greens voters (80%) agree. Only one in five Australians (22%) disagree.

- Two in three Australians (66%) agree that Australia is facing a climate change emergency and should take emergency action. A majority of Coalition (54%), Labor (79%), Greens (86%) and Independent/Other voters (56%) agreed. Only one in four Australians (23%) disagree.

New Zealand poll

A June 2019 poll by 1 News Colmar Brunton in New Zealand asked "Do you think the New Zealand Government should declare a climate change emergency?" Of those who were polled, 53% answered yes, 39% said no, and eight per cent did not know. Those who were more likely to agree that the Government should

words each with a representative sample of 900 Melbourne residents.

The testing allowed the audience to be segmented into three groups:

- Opposition, comprising 26.9%: strongly-held views unlikely to change their view just because of a different narrative;
- Persuadable, comprising 46.6%;
- Supporters, comprising 26.5%: strongly-held views unlikely to change their view just because of a different narrative

The principal result was that: "There is support for declaring a climate emergency, taking action. It is seen as serious and urgent by a majority of people." The message that we need to declare a climate emergency and take serious action was supported by 96% of supporters, 74% of persuadables, and even 19% of opposition. That is two-thirds across the whole sample.²¹

Australia Must Accelerate Climate Action, Not Climate Annihilation

To the Australian Government

World leaders convene this week at the United Nations Climate Ambition Summit in recognition that the global community must accelerate efforts to prevent irreversible and catastrophic climate change.

The United Nations Secretary General, Intergovernmental Panel on Climate Change (IPCC), International Energy Agency (IEA), and scientists from all over the world have made it clear there is no room for new gas, coal and oil projects in the global carbon budget.

Yet, in Australia, over 10,000 miles from where leaders will meet to demonstrate their commitment to climate action, vast areas of the continent are covered by coal, gas and oil production and licenses. Fossil fuels produced in Australia currently result in 1.5 billion tonnes of greenhouse gas emissions annually.

In this – the ‘decisive decade’ for climate – there are over 100 new coal and gas projects in development in Australia according to official data.

If all these projects proceed, research by the Australia Institute shows they would add a further 1.7 billion tonnes of carbon dioxide equivalent to the atmosphere every year – roughly the equivalent emissions of the entire Russian Federation, the world’s fourth-largest polluter.

Accelerating the pace and scale of climate action means an end to new fossil fuel approvals and subsidies.

As the world’s third largest exporter of fossil fuels, Australia has a special responsibility to stop fuelling the increase in global emissions caused by Australian fossil fuel production, both in Australia and overseas.

We call on the Australian Government to follow the advice of the United Nations, the IEA and the IPCC and prevent any further new fossil fuel developments in Australia.

Laureate Professor Peter Doherty AC | Nobel Prize Laureate 1996, Australian of the Year 1997
Adjunct Professor Bill Ware | Director, Climate Analytics
Adjunct Associate Professor Marion Currey
Associate Professor Sarah Perkins-Kirkpatrick
Associate Professor Ben Neville | Deputy Director, Melbourne Climate Futures, The University of Melbourne
Dr Jodie Greig | Senior Lecturer, The Australian National University
Dr Peter Kalman | Climate Scientist and Author
Dr Rosemary Stanton OAM | Senior Visiting Fellow, School of Medical Sciences, The University of New South Wales
Professor Anne de Vernal | University of Quebec in Montreal
Professor David Ho | University of Hawaii at Manoa
Professor Emeritus David J Karoly FAA | The University of Melbourne
Professor Emeritus Jürgen Randers | Co-author of The Limits to Growth and Earth for All
Professor Gretta Pacl | Director, Centre for Marine Sociobiology, University of Tasmania; IPCC Lead Author
Professor Hilary Bambrick | Director, National Centre for Epidemiology and Population Health, The Australian National University
Professor Jean-Pascal van Ypersele | Former IPCC Vice-Chair, Université Catholique de Louvain
Professor Malcolm McCulloch FAA FRB | The University of Western Australia
Professor Michael E Mann | Presidential Distinguished Professor of Earth & Environmental Sciences, University of Pennsylvania
Professor Peter Salisbury
Professor Peter Singer | Ira W DeCamp Professor of Bioethics, Princeton University
Professor Robert Costanza | University College London
Right Reverend Dr Stephen Pickard | Adjunct Professor of Theology, Charles Sturt University
Sunita Narain | Director, Centre for Science and Environment, India
Alan Peans AM | Senior Industry Fellow, RMIT University, Fellow, University of Melbourne
Associate Professor Daniel Horsley | Monash University
Adjunct Professor Caroline de Costa | The Cairns Institute, James Cook University
Adjunct Professor David A Head AM | Board Director, Australian Conservation Foundation
Adjunct Associate Professor Dr Phillip Zylstra | Curtin University
Associate Professor Jasper Levinson
Associate Professor Martin Brueckner | Pro Vice-Chancellor Sustainability, Murdoch University
Adjunct Professor Shih Tong
Dr Didier Swinegodou | Head of Palaeoclimat, French National Centre for Scientific Research
Dr Elizabeth Haworth | Senior Research Fellow, University of Tasmania
Dr Elizabeth Humphrys | Head of Discipline, Social and Political Sciences, University of Technology Sydney
Dr Femke Nijse | Lecturer, University of Exeter
Dr Gareth Bryant | Australian Research Council Discovery Early Career Researcher Award Research Fellow, The University of Sydney
Dr George Crisp | Medical Practitioner, Senior Clinical Lecturer, The University of Western Australia
Dr Gilles Sarric | Senior Scientist, Mercator Ocean International
Dr Hervé Douville | Senior Scientist, former IPCC Contributing Lead Author
Dr Hilary McPhee AO
Dr Hina Gorodesky | Senior Researcher, Interdisciplinary Centre of Marine and Environmental Research, University of Porto
Dr Jean-Baptiste Perret | National Research Institute for Agriculture, Food and the Environment
Dr Jennifer McWhorter
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Dr Helyene Martelletti | Post-doctoral Research Fellow, Deakin University
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Dr Nicole White | Senior Research Fellow
Dr Noyan Vilnius | Senior Technical Officer, Deakin University
Dr Olaf Morgenstern | Principal Scientist, Climate and Atmosphere, National Institute of Water and Atmospheric Research
Dr Peter Stasinopoulos | School of Engineering, Royal Melbourne Institute of Technology
Dr Philippe Ciais | Research Director
Dr Phillip Abbott | Coordinator, Bachelor of Social Work, Queensland University of Technology
Dr Rein Harmsen | Senior Scientist
Dr Rhys Gratrix | Monash University
Dr Megan C Evans | Senior Lecturer, The University of New South Wales

Bill McKibben | Founder, 350.org, Third Act
Carmen Lawrence AO | Former Premier of Western Australia
Christine Milne AO | Ambassador, Global Greens
Distinguished Professor Terry Hughes FAA | James Cook University
Distinguished Research Professor Fiona Stanley AC FAA | The University of Western Australia; Australian of the Year 2003
Dr Bernie Fraser | Former Secretary to the Treasury; Former Governor of the Reserve Bank of Australia
Dr David Horowitz | Founder and Director, Social Justice Fund
Dr Dimitri Lafleur | Chief Scientist, Australasian Centre for Corporate Responsibility
Dr Frank H Talbot AM
Professor Emerita Lesley Hughes | Climate Council
Professor Emeritus Arthur Conigrave | The University of Sydney
Professor Emeritus Peter A Victor | Senior Scholar, York University
Professor Euan Ritchie | Deakin University
Professor Farhana Sultana | Syracuse University
Professor Fran Baum AO | Director
Professor Gabriele Hegert
Professor Gottfried Kirchwegner | Founding Director, Wigner Center, University of Graz
Professor Hayley Fowler | Newcastle University
Professor Hubertus Jermann | The University of Adelaide
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Associate Professor Linda Selvey
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Associate Professor Martin Andra | Murdoch University
Associate Professor Michael Grace | Monash University
Associate Professor Norman Do
Associate Professor Stuart Rosewarne | The University of Sydney
Associate Professor Timothy Clark
Associate Professor Timothy M Garon
Associate Professor Wim Thiry | Vrije Universiteit Brussel
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Dr John Dimmet | Director
Dr Julie Clutterbuck | Senior Lecturer
Dr Kate Dooley | Research Fellow, The University of Melbourne
Dr Katherine A Crichton | Climate Researcher, University of Exeter
Dr Kingsley Faulkner AM | Former President, Royal Australasian College of Surgeons
Dr Kristian Heesch | Senior Lecturer
Dr Lincoln Turner | Senior Lecturer, Monash University

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Dr Tim Flannery | Australian of the Year 2007; Chief Councillor, Climate Council
Emeritus Professor David Shearman AM | The University of Adelaide
Emeritus Professor John Church FAA | The University of New South Wales
Emeritus Professor Mark Lawrence Wahlqvist AO | Former Head of Medicine & Former President of International Union of Nutritional Sciences, Monash University
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Professor Kathryn Bowen | Deputy Director, Melbourne Climate Futures, The University of Melbourne
Professor Lauren Buckley | University of Washington
Professor Lorraine Whitmarsh MBE | Director, Centre for Climate Change and Social Transformations, University of Bath
Professor Lynne Madden
Emeritus Professor Don Bradshaw | School of Biological Sciences, The University of Western Australia
Emeritus Professor Ed Davis AM
Emeritus Professor Joel Gulot | French National Centre for Scientific Research
Emeritus Professor Hans Lambers | The University of Western Australia
Emeritus Professor John King | La Trobe University
Emeritus Professor Phillip Jennings | Murdoch University
Emeritus Professor Simon Chapman AO | The University of Sydney
Professor Adrian Barnett
Professor Alex Gardner | Natural Resources and Environmental Law, The University of Western Australia
Professor Angela Gallego-Sala | University of Exeter
Professor Beth Geleffblatt | Faculty of Law, University of Technology Sydney
Professor Brett A Bryan | Alfred Deakin Professor of Global Change, Environment, and Society, Deakin University
Professor Brett Murphy | Charles Darwin University
Professor Catherine Chamberlain | The University of Melbourne
Professor Cathy Vaughan | Director, Nossal Institute of Global Health
Professor Cecilia Bits
Professor Chris Greening | Monash University
Professor Clive Hamilton | Charles Sturt University
Professor Colin D Butler | Honorary Professor, The Australian National University
Professor Daniel Price | Monash University
Professor Dan Mitchell | Met Office Chair in Climate Hazards, University of Bristol
Professor Darvall Kaufman
Professor Ed Hawkins MBE | National Centre for Atmospheric Science, University of Reading
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Professor Isabel Cache | Universitat de Barcelona
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Professor Jamie Pittock | Fenner School of Environment and Society, The Australian National University
Professor Jess Zinke | University of Leicester
Professor Jeremy Moss | The University of New South Wales
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Dr Santiago Barreto Acevedo | Lecturer, Monash University
Dr Simon Campbell | Senior Research Fellow, Monash University
Dr Sophie Szopa | Research Scientist
Dr Stefanie Pidcock | Medical Officer
Dr Susanna Corti | Director of Research, Research Council of Italy, Institute of Atmospheric Sciences and Climate
Dr Valérie Masson-Delmotte | Senior Scientist, Climate and Environment Sciences Laboratory, Institut Pierre Simon Laplace
Dr Wilfried Kokam | Senior Lecturer, University of Yaoundé I
Dr Yann Bernard | Senior Lecturer
Dr Yung Bi Chae | Senior Research Fellow, The University of Melbourne
Dr Kate Wyllie | Executive Director, Doctors for the Environment Australia

Graeme Maxton | Former Secretary General, Club of Rome
Greg Bourne | Former Regional President BP Australasia
Ian Dunlop | Former Chair, Australian Coal Association; Former CEO, Australian Institute of Company Directors; Breakthrough Centre for National Climate Restoration
J M Coetzee | Writer, Nobel Laureate 2003
Julien Vincent | 2022 Goldman Environmental Prize Recipient
Adam Spencer | Ambassador for Mathematics and Science, The University of Sydney
Laureate Professor John O’Griff | Professor of Economics, University of Queensland; Former Board Member of the Climate Change Authority
Professor Maha Heinschhausen | The University of Melbourne
Professor Markus Donat | Catalan Institution for Research and Advanced Studies, Barcelona Supercomputing Center
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Professor Meurs Parikh
Professor Michael Ashley | The University of New South Wales
Professor Neil Harris
Professor Nicolás Cuvil | Senior Research Professor, The Latin American Faculty of Social Sciences
Professor Oya Hoegh-Guldberg | The University of Queensland
Professor Paola A Arias | Universidad de Antioquia
Professor Paul N Edwards | Director, Program in Science, Technology & Society, Stanford University
Professor Parvan Cook | Monash University
Professor Peter Newman AO | John Curtin Distinguished Professor of Sustainability, Curtin University
Professor Peter Stachan
Professor Philippe Huybrechts | Vrije Universiteit Brussel
Professor Pierre Friedlingstein FRB | University of Exeter
Professor Ricardo Caraculchilli | Honorary Professor, The University of New South Wales
Professor Richard Allan | University of Reading
Professor Rob Moots | The University of Melbourne
Professor Sara Vicca | University of Antwerp
Professor Sharon Piel | Australian Research Council Laureate Fellow and Professor of Health Equity
Professor Shauna Murray | University of Technology Sydney
Professor Steven Sherwood | The University of New South Wales
Professor Tatiana Ryina | University of Hamburg
Professor Thomas Stocker | President, Desinger Centre for Climate Change Research, University of Bern
Professor William J Gutowski Jr | Fellow, American Meteorological Society
Professor Wolfgang Cramer | Research Director, French National Centre for Scientific Research, Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology
Regents Professor Emerita Cathy Whitlock | Montana State University
Dr Lisa Wingate | Research Director, National Research Institute for Agriculture, Food and the Environment
Dr Lukas Schuster | Research Fellow, Deakin University
Dr Mary Evelyn Tucker | Director, Yale Forum on Religion and Ecology, Yale University
Meredith Reardon
Richard Heede | Director, Climate Accountability Institute
Scientia Professor Deo Prasad AO | CEO, New South Wales Decarbonisation Innovation Hub, The University of New South Wales
Thea Ormerod | President, Australian Religious Response to Climate Change
Victoria Horey | Researcher, University of East Anglia
Wes Jackson | President Emeritus, The Land Institute
Adam Komloszewski | Co-Founder and Board Member, The Bridge Foundation
Bettina Pidcock | Consultant
Cam Walker | Campaigns Co-ordinator, Friends of the Earth Australia
David Ritter | CEO, Greenpeace Australia Pacific
Duncan Nappine | Lecturer
Frances Moore Lappé | Founder, Small Planet Institute
Grace Day | Research Associate
Graziano Giuliani | Research Software Programmer
Howard Covington | Chair, ClientEarth
Michelle Higgin | Executive Director, ActionAid Australia
Nicholas Carter | Deakin University
Greg Mullins AO | Former President, Australian Fire and Emergency Services Authorities Council, Emergency Leaders for Climate Action

The Second Guiding Principle Should Be the Urgent Need for Reform of Flawed Carbon Accounting Methodology

NSW must support and promote international reform of carbon accounting methodology. In particular this should be articulated in the bill as it relates to loopholes afforded the energy sector through B.E.C.C.S (Bioenergy with Carbon Capture and Storage). Although the Federal government no longer subsidises native forest biomass as a pathway to emission reduction it has not banned it. Nor has it banned the combustion of wood biomass in general to generate power and produce fuels. A guiding principle for action on climate change is that one should do nothing to emit further GHGs into the atmosphere. Wood combustion emits as much and in some cases more GHGs as coal per unit of power generated. Hence the global call on policy makers to reform this, and other aspects of erroneous carbon accounting methodology.

Recommendation: The NSW government investigate and support proposals for a methodological review of UNFCCC carbon accounting of biomass energy as outlined below. The committee drafting the bill should contact Dr Heather Keith, Research Fellow with the Climate Action Beacon at Griffith University, and Co-Chair of the UN Statistical Commission Forests Working Group.

NSW along with all other parties should push for adoption of the [UN 'System of Environmental Economic Accounting- Ecosystem Accounts'](#)(UNSEEA-EA) framework

- Current carbon accounting is not fit for purpose for prioritising and evaluating mitigation in the land sector and obscures the mitigation benefits of stable and resilient ecosystem carbon stocks and land management activities that protect, enhance or degrade them.
- In addition, many countries employ methodologies that, through inappropriate or inconsistent designations of anthropogenic versus natural emissions and removals, obfuscate progress toward emissions targets. Comprehensive, transparent accounting for ecosystem integrity is vital in assessing the carbon dynamics of ecosystems, the risk of loss of carbon, and therefore collective progress in a global stocktake.

UNSEEA-EA provides an improved information base for State Parties to guide ecosystem-based climate action and reflect differences in stability and risk based on their relative integrity that should inform revisions to accounting approaches by SBSTA and /or the IPCC.

Australian scientists at the forefront of the move for carbon accounting reform work closely with AFCA and our colleagues. They would welcome the opportunity to brief the Minister on the detail of these fundamental and critical reform items that should be reflected in any new NSW Climate Action bill.

AFCA recommends the committee immediately consult Dr Heather Keith and Professor Brendan Mackey on this matter, per contact advice provided. Dr Heather Keith, Research Fellow with the Climate Action Beacon at Griffith University, and Co-Chair of the UN Statistical Commission Forests Working Group and Professor Brendan Mackey, Director, Climate Action Beacon, Griffith University.

Third Guiding Principle: Enshrine the Precautionary Principle hitherto ignored/lacking in relation to climate change impact

The precautionary principle of E.S.D. is a valuable tool if applied to activities that impact global warming which is most. It means that where we know about impact we don't allow it and that where we are uncertain we err on the side of caution and don't proceed. Immediately this will be useful as a guiding principle because in the race to cash in on quick energy and fuel fixes we are seeing hastily assembled projects seeking R & D funding from government and investors or companies wanting to gain green credentials by being seen to be involved in silver green bullet technologies. In anxiety to find solutions government can make the mistake of misdirecting scarce resources, time and finance to unproven and scientifically untenable projects. We take the example of Green Hydrogen. Right now in NSW a determined entrepreneurial groups has responded to a failing native forest logging sector in NSW seeking to sell immature trees as pulp or residue and thereby gain a market from a pseudo green industry. Redbank Power Station in the Hunter, defeated 3 times in the Land and Environment Court from being approved to do a DA modification to burn more than 850,000 tonnes of native and other wood biomass is now doing a DA to burn 850,000 tonnes of wood every year, (purportedly from land clearing) while claiming zero emissions and that it is part of a first phase for Green Hydrogen production, supposedly green because new trees somewhere will absorb the emissions generated by withdrawing an equivalent concentration of CO₂ every year. Research from Chatham House and leading experts shows burning wood actually produces more CO₂ than burning coal for the equivalent energy produced, as well as removing the best technology we have for sequestering carbon-trees. The 2020 Senate enquiry into NSW Energy and its sustainability in the future recommending banning this. The NSW government has not yet acted on that unanimous enquiry report. See e)

Meanwhile, in a climate emergency much of government is taken up with assessing highly emission intense proposals such as this. Applying the precautionary principle and simply banning emission generating proposals such as this would save time, resources, effort, all better spent on genuine solutions.

b).the setting of targets for the reduction in net greenhouse emissions in NSW by 2030 and 2050

The government has stated that it intends to put emissions reduction targets for NSW into law and that these targets are 50% by 2030 and net zero by 2050. There are fundamental problems with this. The first is that the targets should not be based on a net emission approach. The second is that even with a net approach the targets are inadequate.

First: Targets should not be framed in terms of net emissions.

[Net Zero 2050 is a dangerous illusion:](#) **Net zero** it is inextricably coupled with the offsetting concept. Methodology for accounting for offsets is flawed to the point of fraudulence. Net zero has been debunked because the significance – the impact – of actual emissions cannot be 'traded' away. The flawed logic and barely regulated offset approach has meant emissions have been allowed to soar for decades even while progress in renewable energy has occurred. Offsetting mechanisms have been proven not to work and do not allow for accurate accounting for emissions. Assumptions, methodologies and equations around netting out emissions are misleading. This is why there is a push for urgent reform. This matter is so critical and complex

and exhaustively examined that we refer you as a matter of urgency to **Appendix 2 Offsets Component of Flawed Net Zero Accounting**: See in particular the item that is a compendium of evidence of the dangers inherent in carbon markets: *Compendium of studies investigation into carbon offsets markets v. Oct 1*

It is not appropriate to embrace the concept of allowing avoidable emissions by offset trading and that it will not embrace net zero as a means of monitoring and reporting on progress toward emission reduction. The following examination of the role of offsets would be useful here: <https://australiainstitute.org.au/post/carbon-credits-and-offsets-explained/>

Note: New research has found that:

- *Out of the top 50 global carbon offset organisations, not a single one was deemed to have credible offsets.*
- *Of the carbon credits under Australia's Emissions Reduction Scheme, 80% did not represent real cuts to emissions.*

The problematic concept of attempting to 'net out' emissions is a primary reason we consider fundamental premises of the bill (and terminology consequent from them) need re-consideration. We implore you to ask this question after examining evidence and arguments in Appendix 2 and after receiving advice from the experts to whom we refer you: are you still confident the framing parameters of the bill, in its current form will achieve the necessary goal of reducing emissions reduction as swiftly as is possible? Or do you think it needs radical review?

Recommendation: Please seek advice from two Australian scientists at the forefront of carbon accounting methodology, these being Dr Heather Keith, Research Fellow with the Climate Action Beacon at Griffith University, and Co-Chair of the UN Statistical Commission Forests Working Group. and Professor Brendan Mackey, Director, Climate Actin Beacon, Griffith University, Australia.

The government should re-frame the Climate Bill to what the real aim must be; no emissions. The government can then choose to monitor, review and report on the effectiveness of the strategies taking us to nil, or carbon neutrality, asap.

Even if the NSW government stubbornly insists on retention of net zero concept the UN Secretary's comment on the IPCC Final Warning (termed Survival Guide for Humanity) is that target of net zero by 2050 is not adequate: 'Wealthy countries aiming for carbon neutrality in 2050 or beyond should speed up their goal to as close as possible to 2040 to 'defuse the climate time bomb'.⁸

⁸ <https://www.rte.ie/news/world/2023/0320/1364193-ippc-report-reaction/>

Likewise there needs to rapid methane reduction. Methane cuts from energy sector should be at least 75% by 2030, (particularly from coal –mine methane emissions). For this to occur there must be no more coal mining, methane being emitted in large quantities from coal mine shafts.

c) To set an objective for New South Wales to be more resilient to a changing climate (the adaptation objective)

It is critical that this consultation refer and respond to documents we provide in **Appendix 1 Natural Solutions for Climate Resilience are Critical. Vital reforms in approaches to climate mitigation and carbon stores assessment and carbon accounting on which this bill depends in order to be effective are describer therein.**

In its present form the bill states one of its objects to be c) to set an objective for New South Wales to be more resilient to a changing climate (the adaptation objective). This bill should be articulating and legislating now the mechanisms already known by which NSW can be more resilient to CC. Both the scientific community and the public have already provided advice and opinion to multiple governments of urgent actions that can be taken promote resilience to a changing climate. They simply need to be heeded and legislated. This is an imperative of climate emergency. This brings us to our first point on legislating for adaptation. *How can the NS government attempt to justify continuing to kill species and plants within forests by logging and degrade what isn't killed, when our native forests have already begun to 'die naturally' due to climate change induced drought? How could it not legislate to stop this in an 'adaptation' clause?*

Recommendation: The bill must legislate to immediately end native forest logging and clearing which is the first line of defence in the race to establish some biological resilience.

Right now, it's entirely feasible the NSW coast and hinterland could experience deforestation and subsequent desertification within a decade unless immediate action is taken to promote resilience, as fast as possible.

The NSW forest estate is already in a state of imminent decline - dying from climate change impact. The adaptation clause (c) must articulate the actions *already known to be necessary* to attempt to promote resilience, in order that there can be any adaptation to the impacts already being suffered. One of the most important immediate actions required is to stop/cease immediately any native forest logging or clearing. Unless this occurs now, those forests (correction: in some cases now not even forests but isolated remaining stands of trees – and the biota they can still support) which are clinging to life having thus far withstood over 5 years of extreme climate change impact might not be sufficient to provide the necessary biological exchange between and amongst species within ecosystems that are necessary for the survival of the forests and the continuance of any of their ecological functions – i.e. carbon draw down, water regulation, biota preservation and reproduction.

This season's latest onslaught of heat and drought follows upon periods (in many places) of previous drought, fire then over-inundation – extending back beyond the 2019/9/20 drought and fires to earlier events. The biological makeup of the remains of the NSW (and other Australian)

forest ecosystems is so degraded and so vulnerable that we are now witnessing forest ecosystem collapse in NSW.

As AFCA wrote recently to Professor Brendan Choat of the Choat Lab within the Hawkesbury Centre for Environment: *'Why would anyone continue to kill (log/clear) and degrade further native forest ecosystems that already dying?'*

Below are images taken this week of just a small sample of forest tree death occurring right now along the NSW Coast and Hinterland. This is not burnt forest, just our forests beginning to die 'naturally' from climate stress, forests that the government insists it will/can continue logging.





To make forests *possibly* resilient to the further onslaught from climate change now guaranteed at our new practical level of 1.5 heading for 3 degree, they simply must be protected and restored, re-connected (to allow biological exchange, minimise desiccation from fragmentation and canopy loss) and every bit of extant biota must be treated as the most precious commodity NSW has, along with any water bodies within or near them. They house our pollinators, draw down carbon, cool us and without them we will simply starve. There must be no further loss or degradation of remaining natural ecosystems by logging or clearing across public or private land. We refer you to the alarming studies of the Choat Lab demonstrating that the tree death we are witnessing can occur rapidly once a Eucalypt's vascular system can become so damaged that the hydraulics fail and conductivity of its root system is lost. It is not just any trees dying. It is our native hardwood forests which contain Eucalypts, the tree species most adapted to climate severity, drought and fire. The hydraulic collapse in many places exceeds 20% canopy cover, in some 60% and is known to be occurring in at least 3 Eucalypt species. And we are just in the beginning of back to back El Nino cycles. Hence this dire warning accompanied by images taken this week by a professional Walkely Award winning photo journalist and others (below) document what is taking place in several regions of the NSW hinterland that you incorporate this new data into the draft bill.



Mt George – once a verdant valley along the Manning



The dying trees and dead hillsides of Toms Creek

When resources permit the Choat Lab research team will attend these regions to confirm vascular system damage of dying forests. This is what climate emergency looks like, catastrophic fire, flood, drought and ecosystem collapse.

Sudden unexpected tree death is now a phenomenon across multiple continents. Please see **Appendix 3: Continental Tree and Forest Death – Ecosystem Collapse**. Note headlines: “Tree

Project is Central to Net Zero Plan' re the UK's mass forestry scheme. And yet the UK continues to allow Drax Power Station to burn trees (wood) from multiple jurisdictions emitting at least as great a concentration of the most dangerous GHGs per unit of power generated as a conventional coal-fire power station. But, it's ok so far in the UK's carbon accounting. It's all 'offset' and burning trees is 'carbon neutral' because trees regrow. Whatever the accounted for offset, an emission is an emission is an emission. No more are needed.

See Appendix 1. Natural Solutions for Climate Resilience Critical

d) to establish the Net Zero Commission to independently monitor, review and report on progress in New South Wales towards the 2030 and 2050 targets, the adaptation objective and other matters

AFCA cannot endorse the establishment of a net zero commission. Certainly there should be a legislated commission/ authority that can monitor, review, and report and we think – regulate - NSW progress toward zero emissions. It should not be constrained by the no longer relevant and indeed dangerous practices that accompany **net** zero carbon accounting.

Again we state the need for not a net reduction overall but as much reduction as possible across all sectors. Likewise the IPCC, IEA and a consensus of world scientists articulate emission reduction and cessation where possible across all sectors as a matter of climate emergency.

To base an emission reduction target on the concept of net zero through by accompanying efforts to lower emissions with allowance to emit - offsetting - is to enshrine a pathway for ongoing emission generation. The emitters that will use a net zero emission trading pathway will be those that can afford to pay for the offset, not necessarily those sectors or emitters providing essential services genuinely difficult (or impossible) to abate.

Please study the following extract from a paper explaining the science behind Net Zero. It is critical to understanding our critique of the bill.

The science behind Net Zero

From a science perspective, fossil (geo) carbon and ecosystem (bio) carbon are not equivalent and should not be treated as if they are fungible. Primarily this is because they are fundamentally different in terms of the stability of their carbon storage and the different ways in which bio carbon and geo carbon enter the atmosphere.

Even though in both cases the challenge is the same - keep as much carbon as possible from all sources out of the atmosphere for as long as possible, keeping fossil carbon out of the atmosphere is straightforward – simply stop extracting and burning fossil fuels. Retaining carbon in ecosystems is far more complex. Carbon in ecosystems naturally cycles through different pools – both emitting to and removing carbon from the atmosphere. In addition, human activities have disrupted natural

carbon cycles and reduced ecosystem integrity leading to increased emissions and increased risk of future loss of stored carbon, to the atmosphere. (AHTEG 2009; Mackey et al. 2013; Keith et al. 2022a; Rogers et al 2022).

Preventing emissions now is the most important climate mitigation action we can take to limit warming to 1.5 degrees. This is because the lifetime of the airborne fraction of a pulse of CO₂ has a very long tail, with a significant proportion (20-35% persisting in the atmosphere for 2–20 millennia (Archer et al. 2009)). It is the accumulated stock and longevity of atmospheric carbon that are the critical metrics for the climate, not the annual rate of net emissions.

The difference in timing between instantaneous emissions from combustion, and the long-term (decades to centuries) of removals by plant growth, means the elevated atmospheric CO₂ concentration cannot be compensated by forest removals in the critical decades to 2050 that matter for limiting global warming (Keith et al 2022). Hence, emissions and removals that occur over different time horizons should not be regarded as equivalent.

The risks of losing carbon sequestered in ecosystems to the atmosphere are directly linked to their integrity. A tonne of carbon retained in a primary/old growth forest is at much lower risk of loss than a tonne of carbon in a monoculture plantation or degraded native forest. But no matter how safely a tonne of carbon is stored in an ecosystem, it is always at higher risk of loss than a tonne of carbon stored in a fossil fuel deposit.

Offsetting geo carbon emissions with bio carbon sequestration is so deeply flawed that there is a strong international push to ensure that ‘removals’ from forests cannot be used under Paris Agreement market mechanisms to offset emissions from fossil fuels. False assumptions re ‘fungibility’ underpin the substantiation of forest offsets as a mitigation strategy. Science supports the establishment of separate goals and targets to help reduce emissions from and retain carbon in, each of the different carbon reservoirs (geo carbon and bio carbon). The IPCC, the UN Secretary General and countless others are calling for an end to reliance on offsets. Only if we do so can we have any hope of reigning in and quickly phasing out fossil fuels.

Transformational change is needed in how we think about and value forest ecosystem carbon

Net accounting obscures the emissions from logging and masks the most important mitigation benefits of protecting and restoring natural forests (Mackey *et al.*, 2022a). Gross emissions from the relatively small proportion of the forest estate logged each year are netted out against sequestration in the whole forest estate. This is another

unhelpful form of offsetting which fosters the false narrative that logging is carbon positive.

Current approaches to forest carbon accounting tell us nothing about the linkages between carbon storage in forests and biodiversity. Biodiversity underpins forest ecosystem integrity which is important for the stability, longevity and risks to forest carbon storage. Reducing the risk of losing forest carbon to the atmosphere requires a fundamental shift in thinking about the importance of biodiversity and forest ecosystem integrity for low risk, long-term carbon storage. The climate and biodiversity imperative is to ensure that native forests are managed for biodiversity and ecological recovery (from which carbon benefits flow) and not managed for carbon ahead of biological recovery. To achieve this it will be essential to adopt a new approach to assessing the climate mitigation value of forests and wrest the management of Native Forests from state forest agencies. (A separate brief will discuss the changes needed in more detail and outline the benefits of a new UN accounting framework – UNSEEA-EA)

Failure to account for differences in carbon stability based on forest ecosystem integrity (e.g differences between a long unlogged or old growth forest, young regrowth native forests, or mono culture plantation) means we can't see the climate benefits of forests for the carbon in the trees. Forests Methods developed under Australia's Emissions Reduction Fund (ERF) to deliver ACCU's are based on current deeply inadequate Land and forest carbon accounting rules.

For example: Coal, gas and other fossil fuel combustion reliant sectors can be replaced with renewable energy. It is less easy to do this immediately in the transport sector although progress is being made. Where replacement of fossil fuel emission is possible, legislation should provide incentive that it occurs. To make the concept of emission offsets the foundation of a climate action plan and/or target is to perpetuate the slowest, least effective suite of actions, enshrining and allowing ongoing yet avoidable emissions.

Please also observe extract from fact sheet regarding the concept of offsets and in particular potential (Mis) Use of Australian Carbon Credit Units:

Net Zero, Offsets & Forest ACCUs

Carbon accounting and ACCU's

We are at a Global Crisis point re phasing out fossil fuels. Substantial increases in renewable energy have helped satisfy increased demand for energy but failed to reduce fossil fuel consumption. After a short dip due to Covid, fossil fuel emissions continue to rise. Globally net emissions sit at about 0.3% below 2005 levels. We **must** reduce global emissions by 45% by 2030.

Australia is second only to the USA in the top 10 countries for per capita consumption of fossil fuels.

Australia's fair share of global emissions reduction is 75% on 2005 levels by 2030. Protecting and restoring forest carbon would help us achieve a 75% target (ending NF logging alone almost gets us to 43%). BUT there is a significant risk that it will simply delay reductions in fossil fuel production. This risk is increased if improvements in our GHG accounts are monetised by converting forest carbon savings into ACCU's to be sold to the highest bidders amongst our biggest emitters.

Australia's safeguard mechanism does little to limit the use of offsets by our biggest emitters. Robust ACCU's to use in Australia are in short supply. Dropping thousands of tonnes of forest ACCU's into the market place would be heaven sent for our biggest emitters. Once you have created a forest ACCU there is no way to prevent its sale to fossil fuel emitters.

Anything that reduces the pressure on phasing out fossil fuel production is a disaster for the climate, Nature and people. We can and must severely limit the use of land and forest carbon to offset fossil fuel emissions.

Carbon accounting rules used to report national GHG inventories and develop the current pledges for NDCs (IPCC, 2006, 2019b) assume that only annual flows need to be estimated. This assumption is appropriate for fossil fuel emissions, which are one-way flows but inadequate to account for the two-way flows (emissions and removals) between the land and atmosphere (Mackey *et al.*, 2013). Reporting net emissions in the land sector, and using this to assess progress towards the goal of 'net zero' emissions (Allen *et al.*, 2022), is misconceived because it conflates removals by natural forest growth with emissions from human activities (Keith *et al.* 2021).

The risks associated with taking the battle to save our native forests into the technical world of ACCU methods?

Any proposed new ACCU forest protection method will have to go through many hurdles including proof of 'additionality' at a time when the future for native forest logging is clearly bleak and risks to forest carbon storage from damage from drought and fire – risks that are clearly increasing- are great. These valid concerns will lead to debate about discount rates and crediting periods for native forest ACCU's.

Before releasing a 'draft method' for public comment it will undergo consultation with industry and other stakeholders and be co developed with relevant government officials (mostly ANU or Uni. Melbourne Forestry graduates). An official draft method will be released for public comment. There will be strong engagement from DPI NSW, DPI Qld, Forestry Corp in NSW, Sustainable Forests Tas, AFPA and industry forest

carbon experts including Martin Moroni (UTAS, Tas Treasury) and Fabiano Ximenes (DPI NSW) who are already promoting forest carbon ERF methods as a means to earn carbon income from carbon stored in harvested wood products and reducing logging intensity. We know that industry methods would result in ACCU's subsidising ongoing NF logging. Ending NF logging would become far more difficult.

Analysis by Ximenes & Moroni promotes the view that increased sequestration, plus delayed emissions from longer rotations or reduced emissions from reduced logging intensity, plus counting carbon stored in long lived wood products offers superior climate mitigation outcomes than ending native forest logging. While the analysis underpinning these draft methods is flawed, unpicking the scientific inadequacies and flawed assumptions requires technical knowledge and huge effort from the 'count on one hand' number of people in the conservation sector with the technical knowledge, expertise and credibility to unpick them.

Recommendations re a commission: Re-name it The Independent Commission for Zero Emissions and re-frame it accordingly, as per concepts explained above.

Change structure of personnel: the Commission needs people who can base their research and advice not just on the economic and industry bases that so far have dominated carbon accounting, but also on thorough understanding of the broad environmental values (i.e. as well as the carbon emissions targets) involved. This would perhaps best be achieved by conferring with Professor Brendan Mackey et al at Griffith University as he has been involved in development of a framework endorsed by the UN Statistical Commission. This would reform how emissions from the Energy Sector are accounted for, providing a more accurate and comprehensive approach. Commissioners on the proposed commission would need to up to speed with this. **Please see Appendix 2 Offsets Component of Flawed Net Zero Accounting**

e) to provide for other minor and consequential matters

Here is a list of consequential matters but we do not consider them minor but essential, and as necessary imperatives of our other advice concerning previous objects. They are not listed in an order of priority as we consider all of them essential and they should all occur simultaneously. They are immediately do-able urgent actions that will have great (positive) consequence for immediate emission reduction.

1. Disallow any new fossil fuel combustion based enterprises, i.e. coal, gas or wood based power generation and/or fuel developments. This is the simplest means of immediately reduce emissions. Specifically and unequivocally this includes: 13 coal mines mooted for Hunter Valley Coal expansion could emit in excess of 2 billion tonnes of GHGs over the lifecycle. Climate emergency as a first principle would immediately ban approval of this or any further coal, gas or wood bioenergy or fuel expansion. Be on the lookout for an attempt to establish the Redbank Power Station by Verdant Earth Technologies under the guise of a Green Hydrogen facility. The EIS is imminent.

2. Cease subsidisation of existing emission intensive activities: including fossil fuel or other high emitting feedstock sources thereby providing urgent incentive to adaptation across energy, transport and other sectors that to date have relied on subsidisation. Do not extend through subsidisation the Eraring Power Station operation.

3. Divert all current subsidies immediately to production of renewable energy/fuel, bearing in mind that in the case of unproven substitute technologies, particularly in the case of the hydrogen sector where a lot of start-ups are relying on subsidisation for experimentation with fossil and/or other emitting feedstocks (such as forest wood) the precautionary principle must be applied to insure against unforeseen (emitting) outcomes.

4. Legislate against any activities that threaten the survival of NSW carbon stores and sinks. This includes public and private native forest logging and land clearing. This is easy legislation and doesn't involve the government spending money. Rather it will save money from loss making industries that are generating emissions and reducing the ability of NSW to absorb excessive carbon (thereby assisting a zero target).

These immediate and imperative bans should include the following list of discrete items below, as these pertain to protection of NSW native forest carbon stores and sinks.

a) Amend the PEO Act per recommendations of the unanimous report of the 2019-20 Enquiry into *Sustainability of Energy Supply and Resources in NSW*. It overwhelmingly denied the carbon neutrality of wood combustion and recommend banning native forest biomass for energy production. However those recommendations need to be expanded to include a ban on any native forest biomass also for fuel for transport or industry such as NF derived diesel. Also the PEO Act should articulate a ban on wood as a feedstock for combustion for hydrogen production as a so-called green first phase of Green Hydrogen production.

Also wood combustion across the board must cease as a subsidised activity and be disallowed at industrial scale altogether. Native forest biomass still (escaping, unregulated) from private native forest logging operations and wood biomass from plantations clearance is still providing profit to Cape Byron Power's Broadwater and Condong wood burning facilities at an intensely emissive cost. These operations must stop now; they are not carbon neutral and have added air quality impact.

b) Ban native forest logging and clearing across all tenure except for extremely small scale individual farm use of on farm wood resource for non combustible activities, i.e. fencing, building.

c) Ban any activity that diminishes carbon stocks in forests and other biodiverse, carbon dense natural ecosystems so that forests and these other vital biota reservoirs can continue to survive and provide long term carbon retention, minimise the risk of ecosystem (forest) collapse and release of that previously stored carbon into to the atmosphere to prevent further dangerous irreversible ecosystem tipping points.

d) Close any loophole in NSW energy regulation that permits the combustion of wood biomass for energy production.

Note that the previous NSW government enquiry into the Sustainability of Energy Supply and Resources in NSW found, (in August 2020), that to burn wood (including native forest biomass) as a fossil fuel substitute is not carbon neutral, not renewable, damaging to climate and of immediate severe threat not only to the region in which it occurs, but at a state level.

See BELOW for the findings but NOTE: Legislation recommended in 2020 has not yet been changed to accommodate the findings. The Climate Bill should speedily re-dress this noting the report was bi-partisan, unanimous. This should not be difficult for the NSW government.

Extract: Unanimous Report

Sustainability of Energy Supply and Resources in NSW: Summary of findings and recommendations, (p 15-17)

Finding 5 _____ 16

Forest biomass is not a renewable, sustainable source of energy.

Recommendation 2 _____ 16

That the NSW Government amends the definition of native forest biomaterial under the Protection of the Environment Operations (General) Regulation 2009 to prevent the burning of wood from native forests to generate energy.

Recommendation 3 _____ 16

That the NSW Government works with other jurisdictions to exclude native forest biomass from being classed as renewable energy and ensure it is not eligible for renewable energy credits.

1. Rather than attempt to explain the intricacies of the review underway in carbon accounting methodology by the UN XXX, AFCA urgently refers this enquiry to Dr Heather Keith who is now etc.

ⁱ Any target that aims for less than an immediate maximum reduction is inadequate Analysis of why below:

"Thus, if this El Nino peak is as high as we project it will be, the 1.5°C global warming level will have been reached, for all practical purposes."

Temperature trends from the September data: "The September global temperature anomaly leaped to more than +1.7°C relative to the 1880-1920 mean, which exceeds the prior warmest September in the period of instrumental data by about +0.5°C.

"The average anomaly of the past 4 months (+0.44°C relative to the same months in 2015, the origin year of the 2015-16 El Nino) is probably more important. If this relative anomaly is maintained through this El Nino (through Northern Hemisphere 2024 spring) the peak 12-month mean global warming will reach +1.6-1.7°C relative to 1880-1920.

"Decline of global temperature following an El Nino peak is 0.2-0.3°C.

"Thus, if this El Nino peak is as high as we project it will be, global temperature will oscillate about the yellow region in Fig. 2. The 1.5°C global warming level will have been reached, for all practical purposes.

"There will be no need to ruminate for 20 years about whether the 1.5°C level has been reached, as IPCC proposes. On the contrary, Earth's enormous energy imbalance assures that global temperature will be rising still higher for the foreseeable future." Source: <https://mailchi.mp/caa/el-nino-fizzles-planet-earth-sizzles-why?e=3763203384>