Submission No 19

INQUIRY INTO CLIMATE CHANGE (NET ZERO FUTURE) BILL 2023

Organisation: Australian Security Leaders Climate Group (ASLCG)

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AUSTRALIAN SECURITY LEADERS CLIMATE GROUP

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Submission on the NSW Climate Change (Net Zero Future) Bill 2023

23rd October 2023

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Summary

This submission is lodged by the Australian Security Leaders Climate Group (ASLCG) in response to the NSW Government's call for comments on the government's Climate Change (Net Zero Future) Bill 2023 (the Bill).

The climate change threat facing the world is now far greater than recognised officially. Current policies are wholly inadequate to address that threat, in Australia or globally. The Bill must be seen in that context.

The key parameters set out in the Bill, namely to achieve a NSW 2030 emission reduction target of 50% below 2005 levels, and net zero emissions by 2050, are not consistent with the Bill's stated purpose of meeting the 2015 Paris Agreement temperature limit targets. Further, they will not enable NSW to achieve the Bill's adaptation objective of becoming more resilient to a changing climate.

These deficiencies are compounded by the fact that the Bill contains no provision for the Net Zero Commission, in line with the best available science, to review and change those parameters to contribute to meeting the Paris targets.

ASLCG's perspective on the latest climate science is that the objective must be to reach zero emissions as close to 2030 as possible (ZE 2030), which is a far greater task than anything currently being contemplated officially. Accordingly, ASLCG suggest the Bill be re-framed as follows:

- Recognise that any realistic climate policy must first assess the full risks of climate change, as determined by the latest science. As climate change is a global problem, that scientific perspective must be global, and provide the strategic framing for the assessment of climate risks locally.

- This assessment should then determine the policy and targets to be adopted in the Bill. They cannot be set *a priori* in the absence of that risk analysis. To do so is to institutionalise failure by under-estimating climate risk.

- Recognise Australia's responsibility to accept our fair share of emission reduction. We are a wealthy developed country with an economy built upon fossil fuels, which has made us the world's fifth largest carbon polluter when exports are included, as they must be, and the third largest exporter of fossil fuel. We are also exceptionally well-endowed with alternative renewable energy resources, the development of which has been undermined for years by climate denial and incoherent policies.

- New fossil fuel development must be explicitly banned. It is unconscionable that Australia, having been a large part of the problem in denying the realities of climate change for decades, should further expand their use in these circumstances.

- However, some existing fossil fuel use will have to continue for a time to contribute to building the low-carbon future.

- The term "net emissions" must be specifically defined. In particular, in achieving "net emission" outcomes, the use of offsets must be strictly limited, available only to hard-to-abate sectors. Unlimited use, as currently proposed, is a guarantee of fossil fuel expansion. The integrity of offsets remains a major question, particularly given the need for rapid emission reduction, as most offsets take time to become effective even if they are sustainable long term. This is time which we no longer have.

- Responsible Ministers and decision-makers must become better informed about the real risks and uncertainties of climate change, and the urgency for action.

These concerns underline the need for a new conversation on National and State emergency mobilisation to address the real climate change threat. ASLCG would be pleased to assist the NSW Government in reframing the Bill accordingly, and in developing emergency mobilisation planning.

Introduction

ASLCG much appreciate the opportunity to comment on the NSW Government's Climate Change (Net Zero Future) Bill 2023 (the Bill).

We welcome confirmation that the government's stated purpose in initiating this Act is to give effect to the international commitment, established through the 2015 Paris Climate Change Agreement, to: "*hold the increase in the global average temperature to well below 2^0C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5^0C.*"

Indeed, as the Federal Minister for Climate Change & Energy Chris Bowen aptly stated at the December 2022 COP27 meeting in Egypt: *"--- if we are not trying to keep to 1.5^0C, then what are we here for? Because the difference between 1.5^0C and 1.7^0C in terms of the impact on the planet is enormous.*"

We also welcome confirmation in the Bill, that climate action must take into account the best available science.

Unfortunately the key parameters set out in the Bill, namely to achieve a NSW 2030 emission reduction target of 50% below 2005 levels, and net zero emissions by 2050, are not consistent with meeting the Paris temperature limit targets. Further, they will not enable NSW to achieve the Bill's **adaptation objective** of becoming more resilient to a changing climate.

These deficiencies are compounded by the fact that the Bill contains no provision for the Net Zero Commission, in line with the best available science, to review and change those parameters to contribute to meeting the Paris targets.

The rationale for this view, along with a suggested way forward, is set out below.

Climate Change Reality

In the last few months events have occurred globally which indicate an astonishing, but not unexpected, acceleration in the pace of climate change. The world has now entered a new era of extremely dangerous climate impacts which are already proving catastrophic in many parts of the world. The factors which hitherto have constrained warming, such as the recent multi-year La Nina period and the cooling effect of atmospheric aerosols, are fading, pushing the global climate system into uncharted territory.

Despite three decades of global climate negotiations, precisely nothing has been achieved in terms of the primary objective to rapidly reduce global carbon emissions. They continue to rise at worst case rates, with no sign of this changing. For example, the recent US Energy Information Administration's International Energy Outlook 2023 projects global energy-related carbon dioxide emissions to be higher in 2050 than they were in 2021.

Global average sea surface temperatures are now off the scale; Asia, the Middle East, the USA, Europe and parts of Africa have been experiencing massive heat waves, placing many areas on the edge of human survivability; an unbalanced Arctic jet-stream is wreaking havoc with Northern Hemisphere weather patterns; wildfires raged unchecked across Canada; accelerating ice melt in both the Arctic and Antarctic is causing major changes to ocean circulation systems and an El Nino event is likely later this year. These unprecedented extreme impacts are generating cascading secondary effects, not least food insecurity, health crises and large-scale migration. Unfortunately, increasing emissions have also triggered climate tipping points with profound irreversible implications.

These changes are being driven by the increase in global carbon emissions and the commensurate increased concentration of carbon in the atmosphere. The absolute priority today, to regain some control over global

warming, is to rapidly reduce carbon emissions, and to drawdown carbon to reduce atmospheric concentrations to more stable levels. This challenge is exacerbated by the war in Ukraine, the arms race initiated not least by the US/China standoff over Taiwan and now the Israel/Hamas conflict in the Middle East.

ASLCG's assessment of the latest science is set out below. Extensive supporting detail is available on the *Breakthrough - National Centre for Climate Restoration* website which focuses on interpreting the risk and uncertainty implications of the climate science. These risks are still badly underestimated officially, as the Bill in its current form confirms:

- A 1.5°C global average temperature increase, relative to pre-industrial conditions, will occur around or before 2030, irrespective of any action taken in the interim, a decade ahead of IPCC projections. This is the lower limit of the Paris Climate Agreement. It is likely that both 2023 and 2024 will globally exceed 1.5°C.

- The upper limit, 2°C, is now likely prior to 2050, even with actions better than the current Paris and COP 27 commitments. 3°C is likely early-to-midway through the second half of the 21st Century.

- Rapid emission reductions will have no significant impact on the warming trend over the next 25 years due to the offsetting effect of reducing aerosols from fossil fuel consumption, which have been cooling the planet thus far - the "Faustian bargain" of fossil fuel use. This warming is possibly up to 1^0C.

- "Hothouse Earth", non-linear, irreversible, self-sustaining warming may be triggered between 1.5 – 2.0°C. There is evidence that five climate system tipping points may have already moved beyond human influence, with catastrophic and irreversible implications even in the short-term.

- Current global warming, 1.2°C in 2022 and much higher in 2023, is already dangerous. 2°C would be extremely dangerous. 3°C would be catastrophic.

Policy Implications

The practical and policy implications are as follows:

- It is now impossible to limit temperature increases to 1.5°C. Also to 2°C unless global leaders halt current conflicts and accelerate co-operative action on climate change to an emergency footing, akin to wartime.

- The current fashion for achieving net zero emissions by 2050 (NZE 2050) is totally inadequate. The objective must be to **reach zero emissions as close to 2030 as possible (ZE 2030**). A massive task, far greater than anything thus far contemplated officially.

- Any government's first priority should be the security and prosperity of its people, and of its environment and biodiversity upon which the community depend. Climate change has long been the greatest threat to that security and prosperity. Australia, along with our region, is far more exposed to climate risk than most. Historic inaction means the threat has become immediate, and is no longer years ahead.

- Climate impacts in Australia will be noticeably higher than global statistics imply – Australia's average temperature in 2021 was already 1.5ºC above 1910 levels, roughly 1.7°C above pre-industrial levels, in a non-El Nino year. El Nino conditions, now developing, will be extremely dangerous.

- Inertia in the global climate system means that the impacts of increasing atmospheric carbon concentrations do not manifest themselves for years ahead. Today's impacts are the result of emissions from past decades. Irrespective of action taken today or in the immediate future, we cannot avoid severe, escalating climate impact because of those past emissions.

- Unfortunately, despite three decades of negotiation, global leaders have achieved precisely nothing in terms of the key outcome - namely emission reduction - as global emissions continue to rise at worst case rates.

- Hence carbon emissions must now reduce as fast as possible, locally and globally, primarily by cutting fossil fuel use. This means the big emitters, countries or companies, must take the brunt of the cuts. Other initiatives - from technology, communities and restorative agriculture to ocean and reforestation sequestration - many of which are categorised as offsets, are important if applied to the task of carbon drawdown, but they will not achieve the required reductions in the limited time available.

- The immediate challenge is to prevent matters becoming even worse, in particular by expanding the use of fossil fuels, whether domestic or export. Coal and gas expansion, as currently being encouraged in NSW and Australia generally, is irresponsible in these circumstances, and unnecessary given more attractive alternatives are available. Short-term energy security insurance should be provided by a gas reservation policy.

- In addition to rapid emission reduction, atmospheric carbon concentrations must be drawn down from the present level of 420 ppm CO_2, toward a more stable level of below 350 ppm CO_2. At present, much of the technology to achieve that drawdown is in its infancy, further amplifying the risks.

- Geoengineering may be essential to buy time, by cooling areas of the planet, before other initiatives take effect. This is a last resort, but now has to be seriously considered because of political inaction and the continued expansion of fossil fuels.

- An emergency implies acting early rather than later, otherwise mitigation becomes secondary to adaptation as incumbencies throw their resources at managing symptoms rather than addressing the underlying climate change cause. This is leading into a "*death spiral*", toward societal collapse, as climate impacts escalate unconstrained. The beginnings of this are already apparent in responses around the world, not least in the response to recent bushfires and floods in NSW. A one-sided emphasis on adaptation and resilience, downplaying the mitigation task, will likely lead to levels of warming where adaptation ceases to be effective. All actions are needed, urgently.

We are obviously a long way from any global commitment to ZE 2030, but that is what an objective assessment of the science and evidence, and the Paris Agreement, requires.

Climate Change as an Existential Threat

In addition to the NSW Government, Prime Minister Albanese, Climate Minister Bowen and Foreign Minister Penny Wong, along with other global leaders such as UN Secretary General Antonio Guterres and US Secretary of Defence Lloyd Austin, have rightly characterised climate change in recent speeches an existential threat to civilization as we know it. What is not acknowledged is that the threat is immediate in that we are locking-in bad future outcomes with today's inadequate policies. We urgently need a complete reframing of global climate and energy policies to achieve the ZE2030 target.

Existential in this context means a threat posing large negative consequences to humanity which may never be undone, either by annihilating intelligent life or permanently and drastically curtailing its potential.

Few in business, finance or government, seem to understand the full extent of climate risk and uncertainties, particularly the meaning of existential risk. Hence the 2022 call by the ASLCG for a comprehensive national Climate Security Risk Assessment. This has never been carried out in Australia; without it, serious climate policy formulation is impossible, as inaction over the last three decades has demonstrated.

Political and corporate leaders prefer to take the Intergovernmental Panel on Climate Change (IPCC) conclusions as gospel in understanding climate impact and determining policy formulation, for example in justifying the adoption of a NZE 2050 target. That is extremely dangerous as the IPCC work tends to be lowest common denominator and politically watered down; in particular it does not address the major climate tipping point threats – the "fat-tail" uncertainties which were thought to be high impact and low probability, but which are now occurring. For years this has allowed political leaders and vested interests to delay action on the grounds the risks are manageable, which has created the emergency humanity faces today.

Precautionary action is now essential to avoid the immediate existential climate threat. Vested interest pressure and market failure have created this problem; market solutions alone are incapable of solving it.

Defining Net Zero

The Bill talks of a NZE2050 target, but does not define the term "net".

Current government policies around Australia emphasise the benefits of supposedly "new" technologies, such as carbon capture and storage, to justify the expansion of fossil fuel use whilst simultaneously reducing emissions. In reality, this is a classic example of moral hazard. These technologies have been around for years: they work in specific, limited, circumstances, but not at scale, as decades of fruitless investment has demonstrated. They will not be available in the timeframe necessary to offset emissions from fossil fuel expansion, if at all. Further, major questions have been raised about the ability of various carbon credit emission offset mechanisms more broadly to genuinely constrain emissions, both here and overseas,.

Given the immediate existential threat of climate change, any use of carbon offsets must be strictly limited to hard-to-abate sectors and capable of delivering timely, measurable carbon sequestration. Unlimited use, as justification for fossil fuel expansion, is unacceptable.

The Bill should define the term "net" accordingly.

Reframing the NSW Climate Change Bill

Given the global context set out above, the world must now get serious about addressing climate change. This will require global and national mobilisation akin to wartime, for example when economies, in the lead up to World War Two, were turned on their head and refocused on defence priorities within extremely short time frames, typically 6 -18 months. Had that not occurred, the world would be a very different place. Something similar is required to address climate change. It will mean economic disruption and large-scale social and political change. Unfortunately, due to past inaction, that cannot now be avoided. The alternative, of escalating climate impacts and self-sustaining warming, will be far worse for humanity and for the environment. Already millions of people are being displaced, and hundreds of thousands are dying because of the escalating impacts of climate change.

Courageous leadership is needed now, in Australia and globally, to start a new conversation, honestly articulating the threats of climate change and the way forward to avoid them, in the interests of humanity, and

of the environment and biodiversity on which humanity depends. It is encouraging that Minister Sharpe's second reading speech indicates that the NSW Government intends to contribute to that leadership

Accordingly, ASLCG suggests that the Bill should be re-framed as follows:

- Recognise that any realistic climate policy must first assess the full risks of climate change, as determined by the latest science. As climate change is a global problem, that scientific perspective must be global, and provide the strategic framing for the assessment of climate risks locally. ASLCG's perspective, based on discussions with key scientists globally, is set out above.

- This assessment should then determine the policy and targets to be adopted in the Bill. They cannot be set *a priori* in the absence of that risk analysis, as in the current Bill. To do so is to institutionalise failure by under-estimating climate risk.

- Recognise Australia's responsibility to accept our fair share of emission reduction. We are a wealthy developed country built upon fossil fuels, which has made us the world's fifth largest carbon polluter when exports are included, as they must be, and the third largest exporter of fossil fuel. We are also exceptionally well-endowed with alternative renewable energy resources, the development of which has been undermined for years by climate denial and incoherent policies.

- New fossil fuel development must be explicitly banned. It is unconscionable that Australia, having been a large part of the problem in denying the realities of climate change for decades, should further expand their use in these circumstances.

- However, some existing fossil fuel use will have to continue for a time to contribute to building the low-carbon future.

- The term "net emissions" must be specifically defined. In particular, in achieving "net emission" outcomes, the use of offsets must be strictly limited, available only to hard-to-abate sectors. Unlimited use, as currently proposed, is a guarantee of fossil fuel expansion. The integrity of offsets remains a major question, particularly given the need for rapid emission reduction, as most offsets take time to become effective even if they are sustainable long term. This is time which we no longer have.

- Responsible Ministers and decision-makers must become better informed about the real risks and uncertainties of climate change, and the urgency for action.

These concerns underline the need for a new conversation on National and State emergency mobilisation to address the real climate change threat. ASLCG would be pleased to assist the NSW Government in reframing the Bill accordingly, and in developing emergency mobilisation planning.

Submitted on behalf of the Australian Security Leaders Climate Group by:

Admiral Chris Barrie AC (Retd) **Ian Dunlop**

Appendix:

ABOUT THE AUSTRALIAN SECURITY LEADERS CLIMATE GROUP

Climate change represents an unprecedented existential security threat, undermining the stability of our planetary systems, with implications across the full spectrum of human endeavour: from individuals and communities, to the nation-state, and regional and international relations.

Higher temperatures; more extreme weather events, including heatwaves, cyclones and fires; changes to local climates threatening water and food supply; and rising sea levels are all examples of major threats affecting our global and national security. These accelerating climate impacts are expected to increase the risk of civil unrest, conflicts and fuel mass refugee movement within our region over the coming decades

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This threatens Australia's security in many ways, including our energy security; our export market and vital imports, which are at risk from disruption to production and supply chains; breakdown in social cohesion; and the potential for state failure and regional crises.

However, right now climate-security risks are not being fully assessed or understood in Australia. There is a poor understanding of the systemic security risks posed by climate change, which constitutes a major strategic gap. As a result, Australia is failing in its responsibilities as a global citizen, as a major strategic defence ally, and to protect people. Our nation is ill-prepared for climate impacts and the security implications in one of the highest risk regions in the world, the Indo-Pacific.

KEY FACTS

• Climate change is a current and existential security risk.
• Climate risks are not being fully assessed in Australia, leaving us ill-prepared.
• Australia and the near region are on the front-line of climate security threats.
• Climate change is accelerating, efforts to adequately respond to the speed and scale of the climate threat are currently failing.
• Our allies are acting now. In the US, the Biden administration has elevated climate change to a high-level national security issue, with significant stature within its security decision-making.

THREATS WITHIN OUR REGION

• The Indo-Pacific region is "Disaster Alley" for climate change. Threats include:
• In Bangladesh a 1m sea-level rise would flood 20% of the land and displace an estimated 30 million people.
• China already has a chronic water problem, as it accounts for 20% of the world's population but only 7 percent of its fresh water.
• In India, the extreme heat that threatens its population's capacity to survive is projected to become more frequent.
• Vietnam faces the inundation and salination of the Mekong Delta, one of the most important agricultural regions in the world.
• In Afghanistan and Central Asia, a loss of the Himalayan and associated mountain glaciers would threaten water availability of many nations.
