Submission to the

Senate Environment and Communications Legislation Committee

regarding the

Climate Change Bill 2022 and the Climate Change (Consequential Amendments) Bill 2022

Professor Penny D Sackett 10 August 2022

I write with regard to the Climate Change Bill 2022 and the Climate Change (Consequential Amendments) Bill 2022 (hereafter, the Bill) now under inquiry by the Senate Environment and Communications Legislation Committee. Should there be the opportunity, I would be pleased to discuss the points I raise here in more detail with the Committee during the associated public hearing on the Bill.

Legislating a Greenhouse Gas Emissions Reduction Target Now is Vital

I strongly support the legislation of a greenhouse gas (hereafter, GHG) emissions reduction target now. Doing so not only allows Australian government bodies, industries and communities to plan with increased confidence during the transition to a decarbonised society, but also sends a signal to other nations that Australia has begun to engage more seriously with the global threats of climate change. I commend the current Parliament for working together to produce this Bill and the Amendments that will strengthen it further.

We have an opportunity at this critical and politically unique moment in Australian history, to strengthen this Bill, and underpin it with enduring mechanisms that will allow Australia to be much better prepared for the changing climate in which we live. My view is that we should grasp this moment to do more, beginning with this Bill.

The Currently Proposed Target for 2030 is not Strong Enough

Climate change will get worse. Warming levels of 1.5°C are essentially inevitable due to previous lack of strong action. Irreversible changes are already occurring¹, including changes in ocean temperature, acidification and deoxygenation (irreversible for 100s to 1000s of years), mountain and polar glaciers melts (irreversible for 10s to 100s of years), release of permafrost carbon (irreversible for 100s of years), and continued sea-level rise (irreversible for 100s to 1000s of years).

GHG reductions in the next decade are the single most important driver of how much worse the effects of climate change will be, more important, even, than the date at which net zero is reached. This is why this Bill and the continued work of the 47th Australian Parliament is so vital.

The currently proposed target of 43% reduction (on 2005 levels) in GHG emissions by 2030 is not sufficient in several respects. The target is not compatible with holding warming to 1.5°C or even well-below 2°C (compared to pre-industrial levels), which is not only the target of the Paris Agreement, but more importantly the level required to avoid the most catastrophic effects of climate change.

According to the United Nations (UN),² a 55% reduction (on 2010 levels) by 2020 is needed to hold warming to 1.5°C. Climate Action Tracker analysis indicates that Australia needs to adopt by 2030 domestic reductions of at least 57%, and for full fair share reductions, taking into account climate finance commitments, at least 60% below 2005 emission levels.³ The Climate Council recommends that Australia cut its emissions by 75% (based on 2005 levels) by 2030.⁴

In addition, the currently proposed target of 43% reduction (on 2005 levels) is insufficient because it does not represent a high level of ambition for a country with so many avenues to cut its emissions faster through rapid phase out of coal and gas and replacement with abundant wind and solar energy. The 2022 Integrated System Plan of the Australian Energy Market Operator anticipates such a rapid transition, suggests it is feasible and advisable, and is preparing for it.⁵

¹ IPCC (2021) Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, accessed at: https://www.ipcc.ch/report/ar6/wg1/#SPM

² United Nations Environment Programme (2021) Emissions Gap Report 2021: The Heat is On – A World of Climate Promises Not Yet Delivered. Nairobi. Accessed at: https://www.unep.org/resources/emissions-gap-report-2021

³ Climate Action Tracker (2022) Accessed at: https://climateactiontracker.org/climate-target-update-tracker/australia/

⁴ Climate Change Council (2021) Aim High, Go Fast: Why Emissions Need to Plummet this Decade, Accessed at: https://www.climatecouncil.org.au/resources/net-zero-emissions-plummet-decade/

⁵ AEMO (2022) 2022 Integrated System Plan. Accessed at: https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp

Consequently, I urge that the 43% emissions target by 2030 be strengthened in the Bill. At the very least, the Bill should indicate that this target will be strengthened no later than, say, 2025-26, with subsequent revisions to strengthen Australia's GHG emission reduction targets every, say, five years.

This would allow mechanisms to be set in motion now to study not only an appropriate level of the 2030 target, but also model pathways for achieving the target in advance of the next Paris Agreement update of Nationally Determined Contributions. Importantly, these mechanisms can then be used to anticipate, study and plan for further targets beyond 2030. By legislating a mechanism for ratcheting up GHG emission reduction targets now, all components of Australian society will be able to make sensible choices for the future with increased confidence.

New Fossil Fuel Developments and Extensions Place Australia at Risk

The largest threat to Australia's environment and largest driver of climate change in Australia that is under direct Australian control is the continued approval of new fossil fuel developments and extensions in the country. This is because nature makes no distinction as to where the associated fossil fuels are combusted or whether they are considered by the UN under the Paris Agreement as "Scope 1" or "Scope 3" emissions for the reporting by a particular nation. On a tonne per tonne basis, they are equally responsible for the Black Summer fires, the 2022 Australian floods, the destruction of the Great Barrier Reef.

The most significant undertaking by Australia to protect its people and its environment from increased calamitous climate change is to dramatically curtail or stop altogether new fossil fuel developments and extensions in the country, as advised by the International Energy Agency (IEA) in its net zero by 2050 roadmap for the global energy sector. Specifically, key IEA milestones are:

- Beginning in 2021: No new oil and gas fields approved for development; no new coal mines or mine extensions; no new unabated coal plants approved for development.
- By 2030: Phase-out of unabated coal in advanced economies.
- By 2040: Phase-out of all unabated coal and oil power plants.

⁶ IEA (2021) Net Zero by 2050: A Roadmap for the Global Energy Sector, accessed at: https://www.iea.org/reports/net-zero-by-2050

Recent international reports^{7,8} have analysed Australia's fossil fuel production projections,⁹ concluding that Australia's extraction-based (also called production-based) emissions¹⁰ from fossil fuel (coal and gas) production are expected to nearly double by 2030 compared to 2005 levels, indicating that Australia is a major contributor to the Production Gap¹¹ between global intended fossil fuel production and the Paris Agreement target for global warming. In this sense, Australia is indirectly working against global warming being held to 1.5°C (and even to 2.0°C), through the large Scope 3 emissions associated with its fossil fuel production, which is primarily for export.

Consequently, Australia has an enormous opportunity to protect its own environment and people by following the IEA net zero plan, particularly as the GHG emissions associated with global burning of Australian black coal alone (setting aside emissions from the combustion of other Australian fossil fuels) has at least twice the detrimental effect on the Australian environment as do all the emissions emitted directly by Australians from all activities within the national borders.

This Bill could grasp this opportunity through an amendment that, at a minimum, would legislate that Scope 3 GHG emissions from any new fossil fuel development or extension must be considered by any and all consent authorities as a direct threat to the Australian environment equal to that, on a tonne per tonne basis, of Scope 1 and 2 emissions, and be included in economic assessments of such developments or extensions. Ideally, a planned, rapid phase-out of any new fossil-fuel development approvals would be enacted, including transition funds for new, no-carbon industry development in affected areas.

National Climate Risk Assessment and a National Climate Adaptation Plan

Adaptation to climate change is required now, and more will be required in the future. In addition to dramatically increasing Australian ambition and action on mitigating climate change and engaging in the new decarbonisation economy of the future, I support a broad, deep and well-resourced effort to generate both a National Climate Risk Assessment and a National Climate Adaptation Plan, including regular reassessments and transparent reporting

⁷ SEI, IISD, ODI, Climate Analytics, CICERO, and UNEP. (2019). The Production Gap: The discrepancy between countries' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C. http://productiongap.org/

⁸ SEI, IISD, ODI, E3G, and UNEP. (2020). The Production Gap Report: 2020 Special Report. https://productiongap.org/2020report/

⁹ Department of Industry, Science, Energy and Resources (2021) Australia's emissions projections 2021. See their Tables 8, 9, 15 and associated text. Accessed at: https://www.industry.gov.au/data-and-publications/australias-emissions-projections-2021

¹⁰ `Extraction-based' emissions are part of a system of accounting that attributes greenhouse gas emissions from the burning of fossil fuels to the location of fuel extraction. It is an alternate, scientifically valid way to account for emissions.

¹¹ SEI, IISD, ODI, Climate Analytics, CICERO, and UNEP. (2019). The Production Gap: The discrepancy between countries' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C. http://productiongap.org/

against key area milestones. This Bill could establish the mechanisms and organisations responsible for these activities, which would then be able to provide crucial and coordinated data and analysis to all sectors of Australian society, and guide future Government expenditure in climate change adaptation.

Climate Change Authority

I strongly support amendments to this Bill which would result in a strengthened, independent, statutory Climate Change Authority with funding and access to Government data, modelling and officials commensurate with increased duties and responsibilities. In addition, for increased effectiveness, provisions should allow the Authority regular access to Parliamentary committees related to climate change.

I support the Authority's legislated ability to provide unsolicited, unconstrained advice to the Government. More specifically, I support the Authority being tasked with advising the Government on the adequacy of current GHG emission targets and progress toward those achieving those targets annually, through a public report. Additionally, the Authority should make evidence-based recommendations for future increased targets, and opportunities, mechanisms and barriers to meeting them. In light of changing circumstances and information, these recommendations should be reviewed periodically (every two years, say), and made public.

In summary, I support this Bill and most especially support the 47th Legislature using this unique moment to strengthen the Bill further, to codify mechanisms that would underpin an evidence-based, rapid response to the on-going climate change crisis that touches every aspect of environment and society.

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