



Australian Institute of
Landscape Architects

Committee Secretary
Senate Standing Committee on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600
By email to: ec.sen@aph.gov.au

14/08/2022

Dear Committee chair,

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

Thank you for the opportunity to make a submission to the Senate Standing Committees on Environment and Communications on the Climate Change Bill 2022 and the Climate Change (Consequential Amendments) Bill 2022.

As CEO of the Australian Institute of Landscape Architects (AILA), we welcome the Government's increased target and to legislate for a 43% reduction on 2005 levels in emissions by 2030. Given Australia's net greenhouse gas emissions across all sectors in 2005 totalled 559.1 million tonnes of carbon dioxide equivalent (Mt CO₂-e) in 2005^[1] this gives Australia a target emissions of 240.4Mt by 2030.

About the Australian Institute of Landscape Architects

The Australian Institute of Landscape Architects (AILA) is the peak national body for Landscape Architecture. AILA champions quality design for public open spaces, stronger communities and greater environmental stewardship. We provide our members with training, recognition and a community of practice to share knowledge, ideas and action.

With our members, we anticipate and develop a leading position on issues of concern in landscape architecture. Alongside government and allied professions, we work to improve the design, planning and management of the natural and built environment.

In operation since 1966, AILA currently represents over 2,800 landscape architects and promotes excellence in planning and designing for life outdoors. Committed to designing and creating a better Australia, landscape architects have the skills and expertise to improve the nation's liveability through a unique approach to planning issues via integrated design solutions. In doing so, landscape architects contribute towards better environmental, social and economic outcomes for all Australians.

AILA is currently asking its members to pursue not just a net zero target, but a climate positive target for their projects. This is where our projects sequester more greenhouse gases than they emit over their lifetimes. See our [Climate positive design](#) on our website.



Support 43% as a floor that allows increases

Due to a decade of inaction and rising emissions, we support the 43% target as a starting point for business and the community. The Climate Council on page 40 of their [Aim high, go fast report](#), estimated in 2020 that a more accurate target for 2030 would be 74% [ii].

Future targets would need to be steeper to stay within our 1.5degree budget. See also our following explanation on greenhouse gas (GHG) budget.

Recommendation: Include a requirement to rapidly ratchet up our 2035 emissions reduction targets.

The 1.5degree Paris target is critical

Australia with the 2019/20 bushfires and recent flooding, have already seen the devastating impacts of a 1.1°Celsius (°C) world. We currently see Europe struggling to cope, with extreme temperatures, and drought that has almost dried up major rivers. On Saturday, 4th January 2020 Penrith was the hottest place on Earth, reaching a high of 48.9°Cⁱⁱⁱ. As landscape architects we are starting to plan for how to cool the 50°C city.

Committing to the 1.5°C target is essential to protect the future of Australia. It is important to realise that the next target is not 2°C, but 1.501°C, then 1.502°C, etc.

Recommendation: As a developed nation sitting as the 12th highest emitter (scope 1 and 2) out of 197 nations, Australia must be seen to be honouring the Paris Agreement target of 1.5degrees.

Emissions reductions need to look at Australia's remaining GHG budget.

The Paris agreement is based upon a remaining carbon budget for the world from 2015. The recent 2021 AR6 reports notes that for a 66% chance of limiting warming to 1.5°C, that the world now only has a remaining carbon budget of 360GtCO₂. Assuming Australia is emitting 1.2% of global emissions, then we have 4.32Gt remaining to 2050, or less than 8 years of emissions at our current rate of approx. 490-500Mt/Pa. In other words, our entire carbon budget to 2050 will be expended by 2030.

The current 43% target will overshoot the 1.5°C budget. This is where the 74% reduction target referred to by the Climate Council (as noted above) arise.

Note: The 1.5°C budget target is not a certainty – it is only described as a 66% chance in the AR6 report. Would you get on a plane with only a 66% chance of making it 34% chance of crashing?

Recommendation: That CO₂e Mt targets based on our remaining carbon budget be placed in the legislation.

Fugitive emissions from existing coalmines and gas fracking and liquefaction is likely under-reported.

Methane is a highly potent greenhouse gas with up to 86X more impact of CO₂ over short timeframes (under 20 years). These is substantial [under-reporting of fugitive Methane](#) and this needs to be updated with better estimation and real time tracking.



These unreported emissions need to be included in the national GHG accounts and any safeguard mechanism emissions.^{iv}

Recommendation: Improve fugitive methane tracking and measurements and include these in the national GHG accounts and any safeguard mechanism emissions.

New coal mines and gas field development do not contribute to decarbonisation and will make it impossible for Labor to hit our 43% target and our 2050 Paris agreement commitments.

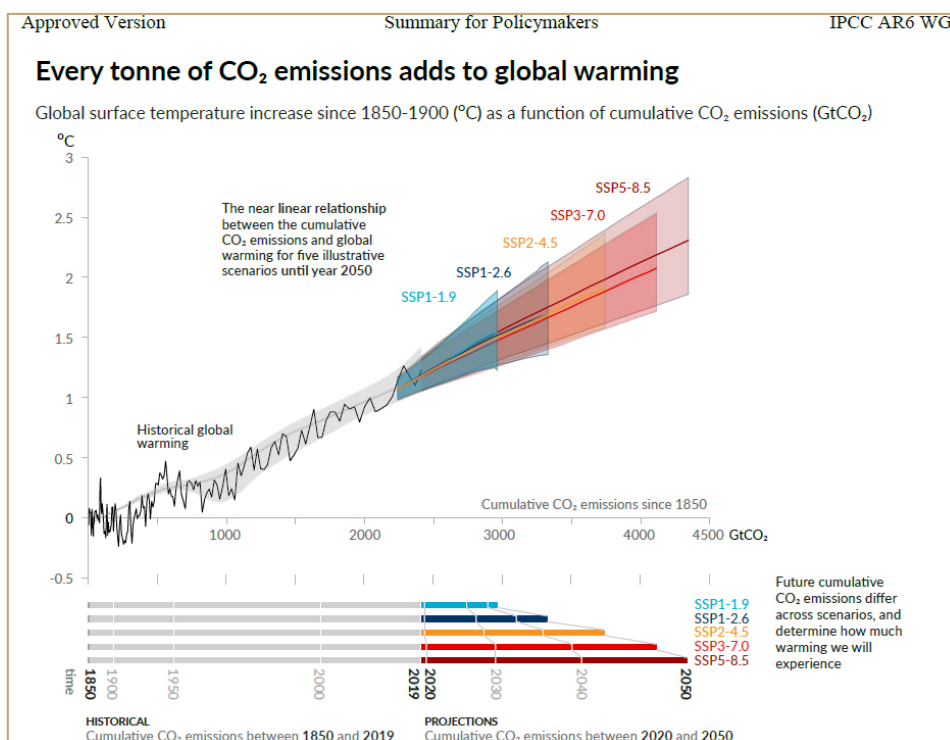
The International energy agency with their net zero plan ^v, the United Nations Secretary General António Guterres ^{vi} and the IPCC have all make it clear that there can be no new fossil fuel projects if we are to meet our Paris objective. You can't put out a fire by pouring petrol on it.

Mega projects like Scarborough, Browse Basin, Pluto, Gorgon, Adani, etc while they produce enormous scope 3 emissions (gas burnt overseas, that is not currently assessed in current GHG reporting), also have outsized scope 1 and 2 emissions.

For example just one project – Woodside Petroleum's Scarborough project has a projected 385Mt of juts scope 1 emissions over its 50 year lifespan according to proponent Woodside Petroleum ^{vii}. This projects alone uses up almost 9% of Australia's total remaining GHG budget leaving us with only 3.935Gt to 2050. This is only one of several hundred proposed coal and gas projects. All of them cut into our total remaining carbon budget, making it substantially harder for businesses and the government to meet our target.

The IPCC in its latest sixth assessment report has made it unequivocally clear that every tonne of CO₂ is warming the planet. The Government needs to be aware that any NEW coal and gas projects are inconsistent with the Government's own stated targets.

Recommendation: Place a moratorium on all new coal and gas projects.





The EPBC act needs to be updated to include assessment of scope 3 emissions.

As one of the world's largest exporter of fossil fuel, the enormous emissions from these when burnt overseas, do material harm to Australia. The atmosphere has no geographic or rule-based boundaries. The EPBC act needs to be updated to include the harm caused to Australia by the burning of fossil fuels overseas. The 6.086Gt of CO₂e scope 3 emissions from the proposed Burrup Hub including the Scarborough project by Woodside Petroleum is 1.4 times more than Australia's entire remaining carbon budget to 2050. And that is just a single project.

Recommendation: Update the EPBC act to include scope 3 emissions in assessment criteria.

Over reliance on carbon offsets and questionable offset methods.

"Net Zero" by 2050 relies on drawdown of CO₂ by nature-based solutions. At a world scale, about 10% of historic emission are from land clearing. If we were to replant all the felled trees and cleared land, we are going to only make a 10% dent in historic emissions. Studies have shown at best that we could pull enough CO₂ out of the atmosphere to pull us back about 10-20 years.

Rebuilding nature is critical, but cannot be used as an excuse to continue to emit. There is simply not enough land on the planet to do so. While Australia has an enormous land mass, the areas for reforestation are limited by our dry inland. If Australia was to say offset 25% of our 4.32 GtCO₂e emissions (1.08Gt) to 2050, we would need at least 1.4Billion trees and 20% of Australia's land mass to do so.

[Assumes trees sequester an average of 50kg/yr over a 30yr period, so each tree has sequestered 1500kg. 1.08Gt is 1.08 Trillion kg. Divide by 1500 kg/tree = 720million trees. As you can't plant them all in one day we need to plant 2x as many so on the last day of planting we have tiny saplings, while trees planted 30 years earlier a now semi mature. So 1.4Billion trees. @ 10 trees/ha = 140million Ha. Divide by Australian land mass of 768Million Ha. =18%. At say \$30/tonne for ACCUs, that is \$30billion, without the land.]

Halting de-afforestation and land clearing in Australia is critical. At the same time there are ACCU offsets as part of the Emissions reduction fund that rely on questionable offsets like avoided deforestation^{viii} and human induced regeneration – which mostly has been in arid areas where rainfall is the primary driver. These should be excluded from the Emissions Reductions fund.

Equally, carbon capture and storage has been shown with projects like Gorgon^{ix}, to be technically fraught and not reliable and therefore should not be part of the safeguard mechanism in the emissions reductions fund.

Nature based offsets should be reserved for historic emissions and not a means for ongoing fossil fuel extraction. Exclude avoided deforestation and human induced restoration from the emissions reduction fund and safeguard mechanism.

Recommendation: Exclude carbon capture and storage from the emissions reduction fund and safeguard mechanism.



With less than 28 years to meet net zero, burning trees is not a viable option and should be excluded from the definition of renewable energy.

Our native forests sequester large amounts of CO₂. We are simply out of time to be logging these and worse still using wood pellets as biomass for energy. We simply cannot replace the resources in the current urgent time frame to 2050.

It is critical that the current loophole of allowing the burning of forest waste to be eligible for renewable energy certificates be closed. This will generate demand for felling trees. The case of the conversion of the UK Drax coal power plant to wood pellets has been disastrous for the planet and has led to the felling of forests in America and British Columbia to feed its 25million tree annual consumption.

Recommendation: Exclude native forest biomass as a renewable energy source under the Renewable Energy Act and its successors.

Attending the inquiry

The Australian Institute of Landscape Architects would be happy to make a representation to the committee if required. Thank you again for the opportunity to submit and if you have any questions or queries about our submission, feel free to call me to discuss.

Yours Faithfully

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References

ⁱ Australia's 2015 GHG emissions.

<https://www.abs.gov.au/ausstats/ABS@.nsf/2f762f95845417aeca25706c00834efa/4FC4AA7DF35CC331CA2573C60010400D?opendocument#:~:text=Australia's%20net%20greenhouse%20gas%20emissions,were%20102.2%25%20of%201990%20levels.>

ⁱⁱ Climate Council Aim high Go fast. <https://www.climatecouncil.org.au/wp-content/uploads/2021/04/aim-high-go-fast-why-emissions-must-plummet-climate-council-report.pdf>

ⁱⁱⁱ Sydney's Penrith the hottest place on Earth amid devastating bushfires. SBS news. 04/01/2020 <https://www.sbs.com.au/news/article/sydneys-penrith-the-hottest-place-on-earth-amid-devastating-bushfires/zrxrj54sw>

^{iv} Under-reporting of Fugitive emissions from Glencore's coal mining. <https://www.accr.org.au/research/glencore%E2%80%99s-methane-problem/>

^v International Energy Agency net zero plan. <https://www.iea.org/reports/net-zero-by-2050>

^{vi} António Guterres. New Fossil Fuel Projects delusional. <https://news.un.org/en/story/2022/06/1120372>

^{vii} EPA Report 1727 - North West Shelf Extension Project - assessment report. www.epa.wa.gov.au/sites/default/files/EPA_Report/EPA%20Report%201727%20%20North%20West%20Shelf%20Extension%20Project%20-%20assessment%20report.pdf

^{viii} Hemming, Polly, Merzian, R. and Shoo, Annica, 2021 Questionable integrity: Non-additionality in the Emissions Reduction Fund's Avoided Deforestation Method. The Australia Institute. <https://australiainstitute.org.au/report/questionable-integrity-non-additionality-in-the-emissions-reduction-funds-avoided-deforestation-method/>

^{ix} Readrearn G. 2021. Gas giant Chevron falls further behind on carbon capture targets for Gorgon gasfield. <https://www.theguardian.com/environment/2022/jul/16/gas-giant-chevron-falls-further-behind-on-carbon-capture-targets-for-gorgon-gasfield>