

Submission to the Climate Change Authority on Australia's 2035 NDC Recommendations for increasing ambition for aviation emissions reduction



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We welcome the opportunity to respond to the Climate Change Authority's **Targets, Pathways and Progress Issues Paper**. We commend the Authority's focus on ambitious targets. Unfortunately, the Authority's target of net zero emissions by 2050 is highly unlikely to prevent warming beyond 1.5C, and a 65-75% reduction in emissions by 2035 falls far short of the urgent reduction required.

The Climate Change Authority's recommendations reflect unacceptably low ambition on aviation, as well as government statistics which only take into account domestic jet fuel use. International jet fuel use is double domestic consumption. Heating from non-CO2 aviation emissions is not included despite being twice as potent as the carbon emissions from flights, and including Scope 3 emissions also increases the impact [1]. Aviation emissions reductions are a significant challenge and there is no prospect of "sustainable" aviation fuel within the timescales of the climate emergency. We argue that the emissions reduction pathway using so-called Sustainable Aviation Fuels and offsets will not reduce direct emissions sufficiently by 2050 and will turn carbon drawdown, needed to cool an already dangerously hot planet, into more emissions [2].

Problems and recommendations

For an aviation emissions reduction pathway aligned to the Paris Agreement goals, we need a rapid reduction in flights. To achieve this, we urge the Authority to put to government our recommended responses to the following aviation emissions problems:

Problem: The Australian taxation system stimulates a fossil fuel industry.

Recommendation:

1. Taxing of aviation fuel equal to that on road transport, to end the current \$1.6 billion annual aviation fuel tax subsidy [3].

Problem: Australian governments, superannuation funds and private industry are approving, funding and building infrastructure which locks in long term emissions

Recommendation:

2. A moratorium on airport infrastructure expansions.

Problem: Australia's climate reporting does not include the majority of emissions from aviation.

Recommendations:

3. Inclusion of the emissions from international flights in annual Australian aviation emissions totals, in line with the best practice of United Kingdom, Denmark, France, New Zealand, Norway, Sweden [4];
4. A recalculation of the climate forcing of aviation emissions in annual reporting to include all Scope 3 emissions [1] and non-CO2 forcing [2].

Problem: Continued use of fossil fuels in the medium term, and projected growth in aviation [5], is incompatible with Australia grappling with our climate emergency.

Recommendation:

5. An annual cap (reducing to zero) on the volume of fossil jet fuel available in Australia for non-emergency flights, to prevent a growth in flight emissions and to incentivise investment in fuel efficiency improvements.

Problem: Greenwashing, such as false emissions reduction solutions deceptive marketing of fossil fuel emissions from flying, are stimulating ongoing consumer behaviour that contributes to climate change.

Recommendations:

6. Moratoriums on
 - a. the use of carbon offsets of any kind in the calculation of aviation industry emissions;
 - b. airline industry advertising;
 - c. the marketing of frequent flyer and fly/buy schemes that reward customers with discount flights.

Problem: Side effects from switching to alternative aviation fuels are significant and include: ongoing loss of biodiversity, human hunger associated with the loss of agricultural land, and opportunity cost by mis-directing renewable energy to an inefficient, non-essential use.

Recommendation:

7. The exclusion of all fuels produced from crops from so-called “Sustainable” Aviation Fuel [6]. The prioritisation of limited SAF for essential and emergency needs, such as airborne fire-management programs.

Problem: Limited government funding must be allocated in an effective way to reduce global heating, not to industry plans that will be ineffective in comparison with other initiatives.

Recommendation:

8. No ongoing taxpayer funding of alternative aviation fuels in government budgets including for programs such as *Future Made in Australia*[7].

Representations of SAF

Additional important points in relation to the Issues Paper’s representation of SAF, include:

- Recent research undermines the case for certification of SAF — in contrast to the conclusions in the supplement to the federal government’s Aviation Green Paper, the CSIRO/Boeing “Sustainable Aviation Fuel Roadmap”[10].
- Multiple recent studies are sceptical of SAF’s emissions reduction potential. Gossling and Humpe (1) this year found that “Most assessments [of SAFs emissions reduction potential] remain sceptical, however, that such technology-solution scenarios are plausible as political, societal, technological and economic barriers persist [9] [8].” The UK Royal Society’s report *Net zero aviation fuels: resource requirements and environmental impacts* [6] is similarly sceptical of SAF potential. It addresses the resource availability challenges, likely costs, life-cycle impacts, infrastructure requirements and outstanding research questions facing alternatives fuels to jet diesel.
- Use in Australia of canola-derived aviation fuel sourced from Europe, diminishes Europe’s synthetic aviation fuel stocks for Australia’s benefit [11].

- Development of alternative aviation fuels such as eFuels and green hydrogen, manufactured using renewables-sourced electricity, undermine decarbonisation of the grid improvements through electrification of power production as seen in the most recent quarter of Australian emissions data [12].
- Using food for humans as aviation fuel feedstock is immoral and adds to ongoing and unsustainable biodiversity loss, and overshoot when, in this case, monoculture sugar cane cropping undermines the viability of the natural ecosystems we rely on for the functioning of our life support systems.
- Producing liquid fuels is the least productive and most expensive way of reducing aviation emissions, as it is an extremely inefficient use of scarce renewable energy. Using, for example, renewables to displace coal generation, prevents nine times the CO2 emissions per MWh [2] as opposed to using it to manufacture synthetic jet fuel.
- Currently, those who fly perceive SAF as less harmful than it in fact is [1], so certifying SAF can have a net negative impact on emissions reductions by legitimising both low absolute emissions reduction ambition in the sector and significant ongoing warming.
- Unlike in the US, where tax incentives were on offer in the IRA bill, the manufacture and use of so-called SAF in Australia should not be publicly funded [13].
- The certification of SAF manufacture and use should require fuels to significantly reduce CO2 and non-CO2 tailpipe emissions during flight.
- All such fuels are synthetic, relying on technological treatments to convert them into aviation fuel that the aviation industry acknowledges are too expensive for global deployment [14]

Proposals for the manufacture and use of SAF are not good public policy.

In conclusion

The Climate Council has called on Australians to “seize the decade”. We call on the Climate Change Authority to make clear to the government that this means NOT promoting false solutions. We also request that you pressure the federal government to acknowledge and reduce aviation’s total emissions cost of aviation to our atmosphere. In your present scenarios, the goal of finding more technological solutions to climate change is setting you up to fail. We are in a climate emergency and the timescale of the government’s aviation emissions reduction pathway is too long, urgent action is required. Technological solutions can’t deliver the needed reductions and must be replaced with effective policy, social and economic regulations that do so.

The last time atmospheric CO2 levels were at the current 420ppm, warming went to 3°C and sea levels rose 10 metres. We need to reduce the new emissions we are adding and this means cutting the number of flights.

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