Biofuels Submission: Aviation NZ

We welcome the opportunity to comment on Increasing the use of biofuels in transport: consultation paper on the Sustainable Biofuels Mandate.

Aviation New Zealand (Aviation NZ) is the peak industry body for the commercial General Aviation industry. It was formed in 1950 to encourage the safe development of Aviation in New Zealand. Today, we have over 300 members spread over six divisions: New Zealand Agricultural Aviation Assn, New Zealand Helicopter Assn, UAVNZ, Training & Development, Engineering & Supply (AEANZ) and Air Operators.

Members include agricultural companies, air operators (fixed wing and rotary), aircraft designers and manufacturers, maintenance repair and overhaul, the UAV industry, airports, aviation trainers, tertiary institutions, emergency and medical services companies, helicopter companies, and parts manufacturers.

We are only commenting on the consultation paper from the viewpoint of our members, but are aware of other aviation industry submissions, wider submissions and have contributed to the Business NZ submission.

At a high level, we see there is an opportunity to spell out a vision for the transport sector in 2050. There is a perspective, and risk, that in a piecemeal approach, we may miss or avoid opportunities. For example, the focus here is biofuels but there is no clear articulation as to where hydrogen sits as a possible solution for New Zealand, or the interoperability of other transport fuels/options that may deliver that vision.

We have a few general points that relate to the questions in the consultation paper. Rather than make the same point in slightly different ways, we can summarise to:

- aviation needs to be seen to be making a contribution to reducing CO2 emissions;
- we support the aviation companies that are developing/have developed environmental and/or sustainability policies and practices;
- as companies upgrade aircraft fleets, they seek to acquire more energy efficient aircraft, this means better designs/more fit for purpose designs, and more turbine engines. We support such developments. Policy implications to accelerate this are worth developing;
- any targets set in the transport area need to reflect the characteristics of the sub sector, be it light passenger vehicles, heavy vehicles, rail, shipping or aviation; and
- any targets set for fuel suppliers need to reflect the sub sectors they supply to.

CONSULTATION QUESTION 1: A GHG EMISSIONS REDUCTION MANDATE

We favour a mandate focusing on the reductions on GHG emissions over one focussing on volume with one caveat: all aviation is not equal. We expand on this further in the submission.

There is also the issue of GHG reductions for long haul flights which must be applied to all air services operating to New Zealand. Failure to do so has the potential to impact adversely on New Zealand tourism. It has an economic risk associated with exports and imports. There is also a risk that international tourists and the New Zealand public will make decisions on leisure destinations based, in part, on carbon emissions.

CONSULTATION QUESTION 3: RELEVANCE OF PROPOSED REDUCTION PERCENTAGES
CONSULTATION QUESTION 6: PERCENTAGES ACROSS ALL FUEL TYPES

The question here is about focus. The proposed reduction percentages MUST reflect the fact that all aircraft engines are not equal and all aviation fuel is not equal. Given that New Zealand is a technology taker in terms of aircraft engine development and the fuel developed for the different engine types, we MUST reflect technical reality in our approach, engine manufacturer specifications, Civil Aviation regulations and insurance policy requirements.

We are aware of the development of SAF for JetA1 aviation fuel, and research by engine manufacturers, aircraft manufacturers and SAF developers. However, SAF is not appropriate for AvGas, another aviation fuel. This has implications for the focus in aviation.
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Pre-Covid,

- about 3b litres of Jet A1[1] was used annually by commercial carriers including Air New Zealand (and the international airlines coming to New Zealand) so this includes the Air New Zealand and Jetstar domestic routes. Turbine engines.
- about 60m litres of Jet A1 was used by smaller domestic operators. Turbine engines.
- about 10m litres of Avgas was used by small domestic operators and individual operators using small aircraft and old aircraft (DC3, replicas, warbirds etc). Piston engines.
- about 1000[2] small sports aircraft, recreational aircraft, microlights etc use petrol (MOGAS) supplied in cans through service stations. The Ministry of Transport probably has a figure because it collects the fuel tax. These aircraft now use unleaded fuel, a development on past practices (was lead).
- a small number of aircraft use diesel. Quantity unknown but small in terms of numbers and fuel consumption.
- CAA doesn't break down stats between turbine and piston so we have to use indicative fuel consumption as a proxy.

There are major issues with SAF for piston engines. Given that the global market for Avgas is small compared to JetA1, engine manufacturers don't focus on this area. Therefore, requiring this group to use SAF when it is not specified for their engines by the engine manufacturers,

[1] All fuel estimates from Airfuels.com
[2] Estimate using CAA NZ figures

allowed by the aviation regulators or the Insurance companies would be dangerous and a major safety risk.

New Zealand may develop a SAF but this is by no means certain. Given the state of global SAF production now and in the medium term, there are some significant issues around:

- the availability of future SAF supplies from multiple countries;
- the stability of future SAF options;
- the price of future SAF supplies;
- transport and emission issues getting the SAF to New Zealand; and
- blending SAF and Jet A1 occurs where and when?

To embark on the full SAF journey, these issues need to be satisfactorily resolved from a sound national and business sense, and at competitive prices.

CONSULTATION QUESTION 8: ESTABLISHED SUSTAINABILITY STANDARD

We support the adoption of some suitable international certification standards, provided they are appropriate to New Zealand, rather than developing our own certification standards

CONSULTATION QUESTION 9: INFORMATION CAMPAIGN

This makes sense but should be ‘on message’, realistic, relevant and practical. Motherhood and apple pie information has the ability to antagonise!

Aviation NZ
Wellington
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