AIRLINES FOR AUSTRALIA & NEW ZEALAND

UNLOCKING AUSTRALIA'S LOW CARBON LIQUID FUEL OPPORTUNITY

SUBMISSION TO CONSULTATION PAPER

OVERVIEW

Airlines for Australia & New Zealand (A4ANZ) welcomes the opportunity to respond to the Low Carbon Liquid Fuels Consultation Paper, released by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA), and the Department of Climate Change, Energy, Environment and Water (DCCEEW).

A4ANZ has welcomed the Government's focus on decarbonising the aviation industry through consultation on the Aviation White Paper, and has supported the formation of the Australian Jet Zero Council as an important step to ensuring that industry and government are able to work collaboratively to design and implement a coordinated national strategy and policy framework to support the decarbonisation of aviation in Australia.

A4ANZ and our member airlines are pleased to note that the Government has recognised the opportunity presented by, and critical role of, an Australian Low Carbon Liquid Fuel (LCLF) industry and is now consulting on the necessary suite of policies – including both supply and demand levers – to promote and support the development of Australian-made Sustainable Aviation Fuel (SAF) and Renewable Diesel.

As the industry group established to represent airlines based in Australia and New Zealand, A4ANZ's commentary on the questions posed in the consultation paper will be focused on SAF. A4ANZ's submission does not answer each of the specific questions posed by the paper, and instead provides high-level commentary covering each of the key areas of the Government's focus; the LCLF opportunity, demand-side mechanisms, production incentive schemes, and emissions and sustainability criteria.

A4ANZ member airlines will also be making their own submissions to the consultation.

THE LOW CARBON LIQUID FUELS OPPORTUNITY

Australia's Comparative Advantage

The LCLF Consultation Paper asks what Australia's comparative advantage is as a potential producer of LCLFs. It is broadly recognised, both within Australia and internationally, that Australia has an abundance of high-quality and diverse biogenic feedstock primed for the production of LCLFs.

The Sustainable Aviation Fuel Roadmap, released by the CSIRO in conjunction with Boeing in 2023 demonstrated that Australia has the opportunity to play a major role as both a source of feedstocks for LCLF and a LCLF producer, given that Australia already produces a significant amount of feedstock which is exported internationally for the production of LCLFs in the EU, Singapore, and US. The CSIRO Roadmap also notes that Australia is well-positioned to capitalise on its natural abundance of diverse feedstocks including; carbohydrates, waste, residues, oilseeds, and, in the future, green hydrogen.

More recently, analysis from the World Economic Forum has identified Australia as "one of the most ideal production locations" for SAF – classifying it as a Top 20 production location, based on most competitive production cost regardless of the deployed technology.[1]

It is also of note that the carbon intensity of some of Australia's agricultural products has been found to be significantly lower compared to the same product produced by other exporting countries – making it a valuable and high-quality feedstock.[2] As such, using these products as feedstock for LCLFs produced in Australia could produce high-quality SAF with significant emissions reduction over the total lifecycle.

As noted by the CSIRO in their SAF Roadmap, in a scenario where Australia becomes only a feedstock provider or exporter, rather than an integrated local processor and LCLF producer, it risks missing out on the significant benefits and opportunities presented by a local – and regional – bioeconomy.

Australia's Opportunities from a LCLF Industry

Australian-Made Options for Decarbonisation

Both the Australian Roadmap for Sustainable Flying produced in 2022 by A4ANZ, and the Sustainable Aviation Fuel Roadmap produced by the CSIRO in 2023, estimate that demand for jet fuel in Australia is likely to be between 14-15 billion litres by 2050.

Importantly, the CSIRO SAF Roadmap demonstrates that Australia could potentially, with the right policy conditions, produce enough SAF to meet almost 90% of its own anticipated jet fuel demand in 2050.

With this quantum of demand, and supply potential (as outlined above), it makes sense for Australia to pursue a domestic LCLF industry – not only to decarbonise the Australian aviation sector, but to assist in meeting the decarbonisation needs of other sectors of the economy. An Australian LCLF industry would not only produce SAF but also Renewable Diesel, which can already be used at a 100% blend, and is critical in the decarbonisation of other hard-to-electrify sectors such as construction, shipping, trucking, mining, and heavy haulage.

At present, both SAF and renewable diesel would have to be imported for use – following Australia's current practice of importing 90% of our liquid fuel. Given that Australia is currently exporting significant qualities of high-quality, high-value feedstocks for the production of LCLF in other countries, it makes no sense to not become a domestic producer of LCLFs.

Liquid Fuel Security

A domestic LCLF industry will have a significant positive impact on Australia's domestic fuel security – safeguarding Australia's long-term sovereign refining capability and reducing Australia's reliance on imported fossil jet fuel and diesel – protecting against geopolitical risks, price shocks, and supply chain issues.

Analysis by ICF suggests that imports of jet fuel could be reduced to as little as 21% by 2050[3], or an even smaller proportion, if Australia's potential – as outlined in the CSIRO SAF Roadmap – is fully realised.

Additionally, by utilising Australian-made LCLF, and reducing reliance on imported fossil fuels, the Australia Defence Force – specifically, the Royal Australian Air Force, as the largest consumer of fuel in the ADF – would increase its operational independence and resilience, translating to an increase in military capability.[4] Indeed, both the US and UK militaries have trialled and adopted SAF for their aircraft fleets – leading to a global precedent for the widespread adoption of SAF within military aviation.[5]

Economic and Employment Opportunities

It is now well-accepted that an Australian LCLF industry has the potential to provide major benefits to the Australian economy and community more broadly. Preliminary analysis by A4ANZ – based on projections from the ARENA Bioenergy Roadmap – suggests that an Australian SAF industry alone, could, across the total supply chain, create more than 7,400 jobs and contribute an additional $2.8 billion annually in GDP by 2030, and over 15,600 local jobs and an additional $7.6 billion annually in GDP by 2050.[6]

Further analysis by ICF, on behalf of Qantas, confirms the quantum of these estimates for local jobs, noting that a domestic SAF industry would also safeguard and maintain 53,000 jobs downstream in the aviation sector.[7]

Regional/Asia Pacific Leadership

In addition to the Australian market for LCLFs, there is an opportunity for governments to take a regional approach. A4ANZ has previously noted the interest from both the New Zealand Government and aviation industry in working together to develop a regional solution for the supply of SAF – noting that it is unlikely that New Zealand will be able to meet its demand for SAF through domestic production alone.

With Australia and New Zealand both having significant connectivity to the Pacific, there is also an opportunity for Australia and New Zealand to become sustainable aviation hubs – facilitating the supply of SAF, and therefore sustainable flying, throughout the Pacific region.

DEMAND-SIDE MEASURES

A4ANZ supports the Government's commitment to undertake a regulatory impact analysis on the costs and benefits of introducing demand-side measures for LCLFs.

A4ANZ member airlines recognise the importance of a regulated demand lever, with requirements relating to carbon intensity, to provide long-term planning and investment certainty for an Australian LCLF industry. We support this being progressed through either a mandate or a low-carbon fuel standard, discussed further below.

A4ANZ would also support the Government considering how Defence Force – or broader Government – procurement may be leveraged to stimulate LCLF demand in Australia.

While the implementation of demand-side measures does not need to be immediate – and in fact would require a significant lead time before implementation at a material level, to not adversely impact the industry or create unintended consequences – the consideration, development, and announcement of such measures does warrant urgent action.

There is agreement across industry that there is a limited window for Australia to capitalise on the opportunity to be a LCLF-producing superpower. For this to happen, the Government must be able to provide industry, and LCLF producers, with a clear signal to establish long-term planning security and investment certainty.

Therefore, while A4ANZ and the industry more broadly are supportive of the Government's commitment to undertake a regulatory impact analysis on various demand-side measures – we would urge the Government to prioritise this work, and for it to be undertaken in an efficient and timely manner.

Low Carbon Fuel Standard Considerations

While there is broad industry agreement that a Low Carbon Fuel Standard (LCFS) connected with a trading scheme would provide long-term policy certainty for a domestic LCLF industry, there is also acknowledgment that this option is far broader and more complex than the blunt instrument of a mandate.

As a result of this complexity and the potential broad application of a LCFS, there are concerns that this may take significantly more time to design, consult on, and implement – especially given the number of stakeholders involved in any consultation on such a policy, and the Government's previous experience with the *New Vehicle Efficiency Standard*.

Mandate Considerations

As the consultation paper notes, a progressive volumetric mandate aligns with policies in other jurisdictions. Mandates for Sustainable Aviation Fuel have either been introduced, or are in the process of being introduced in multiple jurisdictions, including: the EU, Japan, Singapore, India, Indonesia, Malaysia, Turkey, and Brazil.

A volumetric mandate may simplify monitoring, reporting, and verification for compliance. However, there is also a view from industry that the Government should consider carbon intensity in designing any mandate for the Australian market.

A4ANZ understands that Government will be undertaking an impact analysis of demand-side measures with inputs from this consultation. We would strongly urge the Department to include provision for economic modelling on the impact of any demand side-measures in this analysis.

In undertaking regulatory impact analysis on the introduction of a potential mandate, the Government has highlighted a number of considerations for inclusion. A4ANZ suggests that the analysis also consider the following:

- Various potential blending rates, the impact of these on the industry, and likely outcomes, including but not limited to:
    - the potential financial impacts on airlines, and flow through of this to consumers;
    - any potential impacts on competition;
    - whether projected supply from announced facilities will be sufficient to meet demand.
- The minimum sustainability criteria for LCLFs to ensure a meaningful emissions reduction.
- The potential trajectory of a volumetric mandate, and an appropriate interval to review blending levels, to ensure that supply is able to meet projected demand, to avoid supply bottlenecks.
- To whom the blending mandate is applied – for example, under the Refuel EU Aviation initiative, a blending mandate will be imposed on aviation fuel suppliers, with an obligation to ensure that all aviation fuel supplied to aircraft operators at European Union (EU) airports contains a minimum share of SAF.
- How a potential mandate would interact with the Safeguard Mechanism, and the National Greenhouse and Energy Reporting Scheme more broadly.
- Whether access to LCLFs will be equal for all airlines, and if it won't be (based on network operations), the potential mechanisms to address this to ensure that all airlines have a level

playing field, and that market distortion does not occur. This could be done through SAF accounting, including through a Book and Claim mechanism.*

In addition to the above considerations for the regulatory impact analysis, A4ANZ would also draw attention to the following important points, below.

As A4ANZ and industry more broadly have advised several times, mandates alone are not enough to drive SAF uptake, and must be coupled with incentives to help bridge the significant cost gap between SAF and conventional jet fuel. This is echoed by the World Economic Forum's guidance on the introduction of a SAF blending mandate in Europe, which notes that the introduction of a mandate is insufficient to unlock investments in the SAF supply chain, and that reaching the desired levels of SAF production will require public financial support.[8]

The experience of the SAF mandate in France has previously been cited by A4ANZ and others within industry as an example of a badly designed policy framework.[9] Since the beginning of 2022, French regulations have required an average of 1% SAF on flights departing from France (from 2025 this will be adapted to the broader EU mandate under the ReFuel initiative). Due to poorly-designed policy, the cost of SAF is extraordinarily high – up to six times the cost of conventional jet fuel – and not all aircraft operators have been able to access SAF, causing a non-level playing field.[10] Additionally, the mandate has been insufficient in stimulating the production of the volume of SAF it requires.[11]

It will be important to avoid similar negative impacts for the Australian population, who are heavily-reliant on air transport, particularly in the regions, whilst simultaneously facing sustained cost of living pressures. A4ANZ is therefore pleased to see Government acknowledge in this consultation paper, that in order to develop a robust and sustainable LCLF industry in Australia, there must be a suite of policy measures introduced – including both demand measures and supply measures. It is only through a carefully-considered combination of these measures that market distortions and significant consumer cost impacts will be prevented.

As noted by the World Economic Forum, it is vital that these policies work to simultaneously boost production and consumption of SAF in a strategic and sequenced manner – supply first, then demand – and that they are aligned with the technically feasible pace of production ramp up to avoid supply bottlenecks and price volatility.[12]

SUPPLY-SIDE MEASURES

A4ANZ welcomes the Government's consideration of mechanisms to deliver production incentive support to producers of Australian-made LCLFs.

It is of note that, in recent polling at roundtables convened by Government and Bioenergy Australia, a significant majority of industry participants nominated a Production Tax Incentive as their preferred option of support, in the instance of only being able to choose one policy option.

A4ANZ members broadly agree that a Production Tax Incentive – analogous to the Hydrogen Production Tax Incentive (HPTI) announced in the 2024-25 Federal Budget – is the mechanism most likely to deliver effective production support for an Australian LCLF industry.

* A robust SAF accounting framework – including Book and Claim – should be progressed parallel to the development of both demand- and supply-side policies, regardless of whether the Government pursues the option of a volumetric SAF mandate.

Production Tax Incentives, as described in the consultation paper and the 2024-25 Federal Budget – and in the case of the Tax Credits available to SAF producers in the United States under the Inflation Reduction Act (IRA) – are preferred because as they are technology-neutral and don't favour only established producers or production pathways like HEFA.

Indeed, performance-based tax credits – like the Sustainable Aviation Fuel (SAF) Tax Credit and the upcoming Clean Fuels Production Credit (CPFC) available under the US IRA – are broadly agreed to be among the most effective supply-side policies that currently exist in the global LCLF industry.

However, a key downside of the current US SAF Tax Credit and the soon-to-be-implemented CPFC is the short duration of these policies – the CFPC, due to commence in 2025 only runs until 2027, and must be extended every two years thereafter.[13]

As such, to provide Australian LCLF producers with long-term planning and investment certainty, A4ANZ would recommend that the Government design any Production Tax Incentive for SAF in a similar way to the HPTI, having the measure in place for at least ten years. Such a timeframe would accord with global best practice recommendations for these types of policies and aligns with the typical timeframe of SAF offtake agreements, providing LCLF producers and projects with long-term business case and investment certainty.[14]

Like the SAF Tax Credit and CPFC, A4ANZ member airlines, and industry more broadly, also support any production tax incentive for LCLFs in Australia being tied to carbon intensity as a way to provide greater support for more sustainable production and encourage innovation to drive greater emissions reductions – with a baseline rate of support and further support available per litre for each percentage point of a reduction in carbon intensity.

On the question of specific levels of financial support associated with baseline rates and rates for carbon intensity reductions, individual airlines and fuel producers should be surveyed for their views, as the producers and end users of LCLFs.

While the highest priority of support would be the progression and design of a Production Tax Incentive, there is recognition within industry that targeted support or intervention may be required in the medium-term for more expensive or nascent technology – to ensure that Australia is able to diversify its production of LCLF, and meet the full potential for the production and supply of Australian-made LCLFs.

This targeted support or intervention could take the form of grants, or – in some cases – Contracts for Difference, however, this would have to be assessed on a case-by-case basis.

A4ANZ is pleased to see that the consultation paper notes that any production incentives would operate alongside targeted innovation support such as funding administered by ARENA from the Future Made in Australia Innovation Fund or the National Reconstruction Fund.

A4ANZ understands that Government intends to undertake further consultation on the detail of a supply side policy option, once the outcomes of this current consultation have been determined. We look forward to continuing to engage in this process as appropriate.

CERTIFICATION & ACCOUNTING FRAMEWORKS

Emissions & Sustainability Criteria

Ensuring feedstock and LCLF production processes are sustainable and transparently-reported is essential in providing industry, and the community more broadly, with trust and confidence that any LCLFs produced meet the intended standards and sustainability goals.

A4ANZ welcomes the Government's commitment to expand the Guarantee of Origin Scheme to certify the emissions and sustainability profile of low carbon liquid fuels.

A4ANZ has also welcomed the work of the Australian Jet Zero Council in exploring the development of preferred arrangements for SAF certification to provide assurance of the environmental credentials and provenance of SAF.

A key aspect in structuring country-based regulations is to, where possible, pursue harmonisation and alignment globally. To this end, A4ANZ supports aligning with international sustainability criteria, with provision for the practicalities and unique attributes of Australian feedstocks, for example, the comparatively low carbon intensity of Australian-produced grains, noted earlier in this submission.

There is appetite from industry to see Australian-specific data included in the certification standards associated with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) - eligible fuels.

Learning from international experience with developing sustainability criteria and certification will be key to progressing a framework for certification for SAF in Australia. It is important that Australian standards are aligned, where possible, with international standards to prevent market distortion and facilitate international trade, however, it will also be important to ensure that there is regional alignment and harmonisation with standards and regulations set by New Zealand, given that both industry and government in New Zealand are interested in working with Australia to explore a regional SAF solution.

The Importance of SAF Accounting Frameworks

To ensure that the sustainability attributes of SAF are appropriately accounted for, traced, transmitted, and communicated, a tracking mechanism is required to allow for airlines to claim the environmental benefits of their SAF purchases against their various decarbonisation obligations and commitments.[15]

Such a mechanism or framework will need to be implemented and recognised in Australia – including recognition under the Safeguard Mechanism and National Greenhouse and Energy Reporting (NGER) Scheme, more broadly.

There is broad agreement that a SAF accounting framework, based on trusted chain-of-custody approaches, is necessary to support the scale-up of SAF globally. In a country like Australia, with a significant aviation network – connecting rural and remote Australia with regional and major cities, a robust SAF accounting framework will be particularly important to overcoming the likely geographical constraints associated with the supply of Australian made LCLFs.

The development and recognition of a "Book and Claim" model would account for the production, distribution and use of SAF across various stakeholders and supply chains – including international supply chains. This will be of particular importance when considering opportunities to supply SAF in both New Zealand and the Pacific. IATA has outlined the key common principles and necessary attributes of a robust SAF accounting approach in recent policy papers.[16]

While the development and implementation of both supply- and demand-side policies are obviously the focus of this consultation paper, A4ANZ urges the Government to also continue to progress its work on both certification and SAF accounting frameworks, at pace, to support the development of an Australian LCLF industry. An absence of or lag in the development of these policies will have a direct impact on both the supply and demand for Australian-made LCLFs.

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[2] https://publications.csiro.au/publications/publication/PIcsiro:EP2022-0163
[3] ICF. 2023. Developing a SAF industry to decarbonise Australian aviation. A report for Qantas and Airbus.
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[6] Analysis by Frontier Economics prepared for A4ANZ.
[7] ICF. 2023. Developing a SAF industry to decarbonise Australian aviation. A report for Qantas and Airbus.
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[9] A4ANZ. 2023. Submission in Response to Aviation Green Paper. At: https://a4anz.com/documents/231201-A4ANZ-Green-Paper-Submission.pdf
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[13] United States Code, "26 USC 45Z: Clean Fuel Production Credit", 21 December 2023: https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title26-section45Z&num=0&edition=prelim
[14] WEF. 2020. Joint Policy Proposal to Accelerate the Deployment of Sustainable Aviation Fuels in Europe: A Clean Skies for Tomorrow Publication.
[15] IATA. 2023. SAF accounting based on robust chain-of-custody approaches. At: https://www.iata.org/contentassets/d13875e9ed784f75bac90f000760e998/saf-accounting-policy-paper_20230905_final.pdf
[16] IATA. 2023. SAF accounting based on robust chain-of-custody approaches. At: https://www.iata.org/contentassets/d13875e9ed784f75bac90f000760e998/saf-accounting-policy-paper_20230905_final.pdf