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Department of Infrastructure,
Transport, Regional Development, Communications and the Arts
Australian Government

By email lclfconsultation@infrastructure.gov.au

RE: Consultation on Future Made in Australia: Unlocking Australia's low carbon liquid fuel opportunity

Air New Zealand welcomes the opportunity to submit on the Low Carbon Liquid Fuels (LCLF) consultation and supports the Australian Government's vision to support the growth of an LCLF industry for aviation. As outlined in our submission to the Australian Green Paper, Air New Zealand agrees that a safe, efficient, sustainable, productive and competitive aviation sector is critical to the economy and the standard of living of Australia, New Zealand and the broader Pacific region.

Greater use of Sustainable Aviation Fuels (SAF) will be critical to the long-term viability of aviation. As a drop-in LCLF with lower lifecycle emissions than fossil fuel, SAF is one of the only technological options available to reduce the climate impact of long-haul flights. SAF use is less than 1 percent of global jet fuel currently. But International Civil Aviation Organisation (ICAO) scenarios indicate it will need to be 60-100 percent of jet fuel by 2050 to deliver the net zero 2050 goal set by governments, including Australia and New Zealand, at the 41st ICAO Assembly in 2022. Supporting this ramp-up to 2050 will require co-ordination across multiple industry stakeholders and close cooperation between governments.

In the absence of policy support for SAF, the region is at risk of exporting valuable feedstocks, only to import them back as value added products, increasing the cost of decarbonisation while missing out on the opportunity to build sustainable jobs, new revenue streams for existing industries where both countries have a comparative advantage (such as agriculture), and greater fuel security for Australia and New Zealand.

Increases in domestic SAF production in Australia enhance regional fuel security for Australia, New Zealand and the Pacific Islands. An ideal outcome would be a diversity of producers, feedstocks, and mature technologies producing SAF over the timeframe to 2050, which can be eligible for use under multiple regulatory schemes, and for policy to drive down SAF prices to parity with jet fuel.

The structure of this consultation response is two-fold. First, it provides an overview of Air New Zealand and the importance of SAF in our transition to net zero emissions. Second, it includes responses to specific questions outlined in the LCLF consultation document. Not all questions have been answered; only those deemed most relevant.

Overview of Air New Zealand

Air New Zealand is the largest domestic and international airline in New Zealand, with a fleet of over 100 operating aircraft providing both passenger and cargo transport services across 30 international ports.

Australia is a critical part of Air New Zealand's network, with flights to nine Australian destinations: Sydney, Melbourne, Brisbane, the Gold Coast, Hobart, Adelaide, and Perth and seasonally to

Cairns and the Sunshine Coast. In the year ending 30 June 2019, Australia was the most popular destination for New Zealand travellers with 1.4 million visitors representing approximately 15 percent of total visitors to Australia. New Zealand was also the most popular outbound travel destination for Australians with 1.5 million visitors accounting for 40 percent of all international visitors to New Zealand. Numbers are on track to return to these levels by 30 June 2025.

SAF is central to Air New Zealand's journey to reduce emissions and in the past twelve months it has received SAF deliveries into Singapore, New Zealand and US ports. While SAF was less than 1 percent of its jet fuel use in its financial year ending 30 June 2024, it anticipates SAF to be around 80 percent of its fuel use in 2050, pending appropriate government support.

Air New Zealand is actively advocating for this policy support in New Zealand via multiple channels including Sustainable Aviation Aotearoa (SAA), a public-private partnership focussed on accelerating aviation sector decarbonisation in New Zealand. It is also co-funding feasibility studies on domestic SAF production with NZ government agencies.

New Zealand has potential to make SAF from domestic feedstocks including woody biomass and municipal solid waste.

Regional harmonisation of SAF policy can enable more widespread use of SAF across multiple countries, widening supply options, and potentially reducing the financial impacts of SAF use on consumers and trade.

Commentary on Air New Zealand's position and responses to the consultation questions are outlined in schedule 1. We welcome constructive discussion on the content of this submission.

Ngā mihi



Kiri Hannifin

Chief Sustainability and Corporate Affairs Officer

Schedule 1: Responses to consultation questions on supporting an Australian domestic low carbon liquid fuel production

The Government is seeking your views on the design of a production incentive scheme:

What mechanism do you think would best support production – through the tax system, contract for difference or grant based funding?

To scale a domestic SAF industry, it is recommended to have some form of SAF production incentive scheme in place by 2026. In the next two years, rapidly implemented support to enable several projects to progress past the “Final Investment Decision” phase and begin construction will be critical, laying the foundation for the wider industry to scale after 2030.

A suite of mechanisms will be needed. Production incentives need to be tailored to available feedstocks, the pace of industry development, and domestic and regional circumstances.

All three mechanisms listed have clear benefits:

- Tax-based systems: these have consistent eligibility thresholds and so are more easily incorporated into SAF business cases. This provides greater certainty to investors on the level of financial support available, which can help accelerate project timelines. Uncapped production tax incentives encourage larger volumes of SAF production, which is desirable.
- Grant-based funding: the use of a competitive tender process to allocate grants means that support for SAF projects can be managed on a case-by-case basis. This could support scaling of newer feedstocks and emerging technologies (see responses to later consultation questions). Grants can help to overcome the barrier of high CAPEX costs but are less responsive to changing market conditions.
- Production credits: while these do not address high CAPEX costs, they are able to be scaled relative to production volumes. These can also be tailored to the financial needs of a particular strategic project.

The mechanisms above also need to be accompanied by clear 2026, 2030 and 2050 demand signals for SAF via a legally binding mandate or equivalent fuel standard on jet fuel suppliers. If supply-side measures are not implemented prior to, or in parallel with a demand signal, production incentives would need to be significantly larger to drive the development of a SAF industry.

Are there other mechanisms Government could consider to deliver production support, other than a production tax incentive or competitive grant-based payment? What do you think is the highest priority form of support?

Yes. Other mechanisms include:

- Blenders tax credits to incentivise physical SAF blending in Australia. This could be implemented without requiring substantive infrastructure investments. In addition to domestic production, this could support regional supply by enabling more SAF produced in New Zealand and the Pacific to be used in Australian ports.
- Grant funding to help early-stage projects to proceed successfully through Feasibility, Pre-Front-End-Engineering Design (FEED) and FEED stages prior to the Final Investment Decision (FID) stage. Financing projects through these stages is often perceived as high risk by investors, so this support could help the development of less technologically mature pathways.

How many producers would you expect a production incentive scheme to support in Australia?

This is hard to quantify. The production volumes of SAF facilities varies, a single producer can operate multiple facilities, and the potential demand for SAF in Asia-Pacific is changing rapidly. A production incentive scheme should be broad enough to support both new market entrants and energy incumbents. More important than potentially capping the number of eligible producers is for the incentive to apply over a fixed timeframe, for example 10 years, which will be regularly reviewed.

How could the introduction of a production incentive scheme affect competition in fuel production and supply markets, and also amongst fuel users?

There is already intense and growing competition for SAF supply globally. Singapore, Japan and British Columbia are examples of regions who have recently announced SAF mandates for 2030. Other countries including Taiwan, Malaysia, Indonesia, China, Hong Kong, South Korea, and Thailand are expected to announce policy in the next 12 months.

A production incentive scheme should be implemented by 2026 to enable Australia to compete as a source of regional production and supply. The introduction of a well-designed production incentive scheme should improve SAF affordability and minimise the potential for competitive distortion or an uneven playing field. By widening SAF supply options for individual fuel users, it could potentially reduce competition for SAF among airlines.

What are the expected timeframes for when an industry would be sustainable without support from Government?

The overall SAF policy package should extend to 2050 to give long-term certainty to the regional industry, and to support governmental engagement in global aviation policy discussions at ICAO on the 2050 Long-Term Aspirational Goal (LTAG).

The level and timeframe for transitional Government support for SAF production will depend on how fast the SAF industry can scale volumes, reduce production costs, and reach price parity with fossil fuels. This timeframe will also depend on long term access to affordable feedstocks and any carbon pricing.

Without sustained policy support in the short and medium term, SAF prices are expected to stay above conventional jet fuel due to feedstock constraints, the nascency of SAF technology pathways, and the limited availability of commercial scale production.

The timeframe and extent of policy support should be regularly reviewed as the industry develops.

The Government is seeking your views on the design of production incentives to appropriately incentivise the production of SAF and renewable diesel and different pathways to produce LCLF:

Would production support need to offer a different rate of incentive for SAF and renewable diesel?

Yes.

Policy should enable all transport modes to have a pathway to net zero emissions by 2050. While the road transport sector has the option to electrify or use hydrogen, long haul aviation is harder to abate and will need SAF production for at least the next 25 years. Renewable diesel (RD) is cheaper to produce than SAF, even within the same production facility. As such, in the absence of demand-side measures, equal rates of production incentives for both fuels will likely result in a greater supply of RD than SAF. This results in decarbonisation of road transport at the expense of aviation – and

at the expense of the long-term viability of the aviation sector. Therefore, greater production support will be required for SAF than RD.

Does a potential production support program need to prescribe certain proportions of production volumes towards SAF or renewable diesel?

No.

Currently 3 percent of global renewable fuels are allocated to SAF. IATA is calling to increase this percentage to 25-30 percent, recognising the difficulties associated with reducing emissions from long haul aviation¹.

However, this increase could be met through targeted and effective production incentives rather than a prescriptive mix of production outputs. Allowing producers to determine their end-product mix provides them greater flexibility to adapt to constantly evolving market conditions and recognises the variable RD/SAF yields of different technologies.

Would production support need to provide different levels of support for emerging and established production pathways? What are some of the design considerations Government should consider? What policy approaches are technology agnostic, applying efficiently to new technologies as they emerge?

Yes, production support needs to provide different levels of support for different pathways.

An ideal outcome is a diversity of producers, feedstocks and mature technologies over the timeframe to 2050, producing SAF which is eligible for use under multiple regulatory schemes, and for policy to drive down SAF prices to parity with fossil jet fuel over time. It is important for policy approaches to reward technological innovation and avoid restricting producers to supply options which may become uncompetitive in future.

Production support could be phased to reflect production pathways at different technological maturities reaching cost-competitiveness at different rates. Support of multiple pathways will help ensure long-term feedstock diversity.

To achieve this outcome, the design of production support needs to consider:

- Prioritising the scale up of SAF from waste-based feedstocks, to minimise or avoid the resource and land use impacts of potential SAF production from first generation crop-based feedstocks.
- Rapid policy implementation to launch the first SAF production projects. A standardised tax credit that incentivises carbon intensity may provide a clear, consistent signal to the market, and support established production pathways.
- A possible cap on support for SAF production from HEFA. HEFA is the most technologically mature SAF pathway, so is likely to be cost-competitive earlier than other production pathways. While HEFA is key to 2030 supply, oil-based feedstocks alone cannot deliver enough volumes to achieve 60-100 percent SAF in 2050. Grant funding to help projects, particularly those from less technologically mature pathways, successfully progress through project development stage pre-FID, such as the feasibility, pre-FEED, and FEED stages. Financing these stages is often perceived as high risk by investors.
- A tailored, competitive process to select projects for production support (e.g. grants, production credits) to allow the unique strengths and circumstances of each project to be

¹ IATA. June 2024. *SAF Production to Triple in 2024 but More Opportunities for Diversification Needed*. Available online [here](#).

recognised. This should support emerging technologies and feedstocks that may not be otherwise viable due to their lower levels of maturity (for example, power to liquid).

The Government is seeking your views on the following considerations regarding emissions and sustainability criteria:

Do you support an emissions reduction threshold being included as part of eligibility criteria for fuels to receive support under a production incentive program? What threshold would you seek to be included in eligibility criteria (for example 50 per cent emissions reduction relative to conventional fuels, or another emissions reduction ratio)?

Yes.

Air New Zealand supports robust SAF sustainability criteria and the harmonisation of these criteria between Australian and New Zealand regulatory schemes. This can advance the Single Economic Market (SEM) agenda by widening the pool of eligible SAF supply options for both countries, building regional fuel resilience. Clear and robust sustainability standards help to build wider public support for SAF.

SAF should meet a minimum 50 percent LCA threshold versus a CORSIA baseline of 89gCO₂e/MJ and based on the CORSIA lifecycle methodology. This is also aligned with Air New Zealand's minimum LCA requirements. Methodological alignment is crucial because different LCA methodologies with significantly different LCA values creates inefficiencies and challenges with meeting the requirements of various certification and regulatory schemes, including those of CORSIA and the Science Based Targets Initiative (SBTi).

While the UN accepts CORSIA-eligible fuels with LCAs as low as 10 percent, production support should be focussed on encouraging fuels with high LCAs to maximise the environmental benefits of SAF and encourage efficient use of feedstocks.

Policymakers may wish to consider exception cases for new technologies. For example, a lower initial threshold for first-of-a-kind SAF production facilities which have a path to achieving a 50 percent LCA within the few years of operation

Do you think any threshold should increase over time?

Yes.

The minimum threshold should increase over time to drive higher emissions reductions per unit of production, more efficient use of feedstocks, and encourage technological innovations which increase LCA savings, such as carbon capture and storage.

While the key benefit of SAF is to reduce emissions, SAF production has additional environmental impacts and consumes resources (land, water, energy), so there is value in encouraging producers to make efficient use of resources.

Regional harmonisation of when and how thresholds change will support the Single Economic Market agenda. It is recommended that policymakers consult further on whether potential increases in thresholds should be linear or step-wise, and the timing of such potential increases.

Do you think incentives should be included to encourage emissions reduction in addition to a minimum eligibility threshold?

Yes.

For example, production incentives which are linked to carbon intensity and are higher for SAF with higher LCA savings. Note that while a mandate is a demand-side measure and not a production incentive, linking it to emissions intensity can encourage emissions reductions. Demand-side and supply-side measures should be designed and implemented together.

Do you have views on the sustainability criteria under consideration as part of the criteria?

As a minimum, Air New Zealand supports alignment of criteria with global CORSIA standards, with the exception of the minimum LCA. This international standard accounts for the impacts of land-use change.

What additional or alternative criteria would you want to see form part of the criteria?

Air New Zealand supports regional (Australia, New Zealand, Pacific) harmonisation of sustainability criteria for SAF eligible under national or regional regulatory regimes.

As noted above, as a minimum the SAF should be certified for use under the global CORSIA scheme via RSB or ISCC. Even if not all domestically produced SAF is used towards CORSIA obligations, this certification ensures that the SAF meets minimum sustainability standards and increases the eligibility of SAF under multiple regulatory schemes and countries.

Certification via RSB or ISCC provides additional sustainability and social safeguards to limit unintended consequences of SAF production. Decarbonisation must not be considered in isolation. Likewise, maintaining public support for SAF is vital to the long-term viability and social license of the sector. Robust sustainability criteria enable this.

Another recommended criteria is a ban on domestically produced or imported SAF made from palm, palm byproducts, and soy. These feedstocks have historically resulted in significant emissions from indirect land use change and carry significant sustainability risks.

In addition, where feedstocks are identified as having potentially negative environmental and/or social consequences which are not addressed by RSB/ISCC certification, we recommend alignment with additional industry safeguards such as a requirement for Bonsucro certification.

Policymakers should regularly review sustainability criteria to ensure these remain fit for purpose as new feedstocks and certification develop.

Do you have any other views on emissions and sustainability criteria?

Measures to improve traceability in SAF supply chains are critical to ensure that the wider sustainability impacts of SAF are minimised. This includes ensuring traceability to point of origin for all feedstock types. SAF supply chains currently present material nature-related risks to airlines and the avoidance and reduction of these risks will become an increasingly critical issue as airlines are required to or voluntarily adopt nature-related risk disclosures.

Policy-makers should prioritise the use of waste-based feedstocks over first generation crop- based SAF.

Regional harmonisation of policy support and sustainability criteria for SAF between Australia and New Zealand is important for widening SAF supply options, improving fuel security, and enabling a SAF ramp-up in both countries. New Zealand and Australia operate in a Single Economic Market (SEM) where regulatory alignment and harmonisation is critical to improve cross border flows and lift productivity.

In addition to meeting national and regional goals, sustainability criteria should enable the global aviation industry to move closer to alignment around a single set of global criteria.

Governments should consider advocacy to ICAO to make sure that the carbon benefits of regionally available feedstocks are accurately calculated globally and reflect local agricultural practices. This will be key to widening supply options and making sure the global uptake of these feedstocks is not limited due to out-of-date information at a global level.

The Government is seeking your views on the design of demand-side mechanisms:

What options should the Government consider in its regulatory impact analysis, such as a mandate introduced over time, low carbon fuel standard connected with a trading scheme, a non-binding target or other demand options?

Only legally binding regulation will provide the certainty of demand necessary for investors to support domestic SAF production, and for the industry to scale to 60-100 percent SAF in 2050 to support the global ICAO LTAG.

Impact analysis should consider the two options of an emissions intensity mandate that gradually ramps up in line with forecast global production of SAF and a low carbon fuel standard connected with a trading scheme. Both emissions intensity and volume-based options should be considered – but an emissions intensity approach aligns with the global ICAO goal for 2030 and provides producers more flexibility on how they meet it.

The scope of the impact analysis should consider the cost implications of SAF production for short haul and long haul passenger flights and cargo flights.

The scope should also consider scenarios where both the SAF volume and SAF LCA increase over time, and any conditions necessary to drive down the cost of SAF to price parity with jet fuel.

When providing advice to Government, you may like to consider:

What demand-signals would best drive confidence and certainty for a domestic LCLF production industry?

The announcement and implementation of a SAF policy package by 2026, which extends to 2050, is a key signal for driving confidence and certainty for both the domestic LCLF industry and the regional SAF industry. To create a clear demand signal, it is necessary for this policy include both short-term and long-term legal obligations on fuel suppliers for the emissions intensity of jet fuel, to support alignment with the global ICAO SAF goal. Policymakers should signal that this policy package will be reviewed at regular intervals to account for the latest insights.

How would the application of a mandate affect your business/operations?

Air New Zealand supports the implementation and harmonisation of SAF mandates or equivalent fuel standards between Australia and New Zealand.

The application of an Australian mandate, as part of a wider SAF policy package and as a complementary measure to future SAF policy frameworks in New Zealand, would reduce the potential competitive distortions from using SAF and create a level playing field to encourage the decarbonisation of aviation. This policy package should include supply-side support to mitigate potential increases in ticket prices for consumers.

Should demand-side interventions be designed to only apply to some areas of the market and not others? Which sectors or sub-sectors should demand-side interventions apply? How would the introduction of a mandate or other demand measures affect competition in your industry?

Yes. The obligated party for demand-side measures should be fuel suppliers. The scope of the obligation can either be for aviation fuel, or all transport fuel, to align with international precedents. To minimise competitive distortions and ensure a level playing field, demand-side interventions should be applicable to jet fuel used on domestic and international flights.

The impact of SAF policy needs to be considered holistically as the impact of mandates will depend on the supply-side measures that are in place. Production incentives play a crucial role in supporting higher rates of SAF use without leading to significant cost increases to consumers.

Should design of a mandate, low carbon fuel standard, target or other demand option create requirements for a certain proportion of fuel use be drawn from Australian produced LCLF?

Air New Zealand supports regional harmonisation of SAF policy and criteria and support for SAF production not only in Australia but in New Zealand and the Pacific Islands. Air New Zealand supports interoperability between such regional schemes. This would likely require effective implementation of a book-and-claim system and bilateral agreements to manage national emissions inventories.

How would the introduction of demand side measures impact the feasibility of domestic production of LCLFs, and what impact would this have on the appropriate design of any production support?

SAF production facilities need to secure long-term offtakes of at least 10 years as a key component of reaching FID stage. Without demand-side requirements such as a mandate, it is difficult for airlines such as Air New Zealand to commit to long-term supply agreements at a premium to jet fuel. The introduction of demand-side measures would increase the feasibility of domestic production of LCLFs, because it would increase fuel user confidence in securing offtakes, thereby increasing the likelihood of investment in domestic SAF production.

The impact of a SAF policy package should be considered holistically and demand-side and supply-side measures will need to be designed and implemented together. The impact of demand-side measures on the design of production support will also depend on available feedstocks and technologies.

To enable the scaling of a domestic SAF industry which can support regional fuel security, it is critical for demand-side measures to be implemented by 2026.