Department of Infrastructure, Transport, Regional Development,
Communications and the Arts
GPO Box 594
CANBERRA ACT 2601

18 July 2024

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

Nufarm welcomes the opportunity to provide a submission to the Department of Infrastructure, Transport, Regional Development, Communications and the Arts' consultation on *A Future Made in Australia: Unlocking Australia's low-carbon liquid fuel opportunity.* Nufarm sees low-carbon liquid fuels as a highly important part of the government's objectives under A Future Made in Australia, and broader emissions reduction targets.

Nufarm is an agricultural innovator developing integrated solutions for our customers. Nufarm is developing plant-based solutions and crop protection products that help address our changing nutrition and energy needs. We are a proud Australian company with a 100-year history of investing in solutions tailored to the needs of local growers.

Our seed technologies platform, Nuseed, develops sustainable plant-based solutions for growers, the agriculture industry and end-use customers. Through the transformation of select crops into renewable and traceable sources of lower-carbon energy and plant-based nutrition, Nuseed's proprietary solutions contribute to solving global challenges like food security, human nutrition, and climate change. Since its inception in 2006, Nuseed has been at the forefront of oilseed innovation that supports sustainable food and biofuel production in Australia and beyond.

We believe that a supportive policy landscape that encourages investment in a low-carbon fuels industry is critical to help unlock new opportunities for Australia's agricultural sector and the following four policy principles have been central to our global engagement with policymakers, including:

1. The need to establish globally aligned standards and certification schemes
2. Leveraging performance-based policy approaches
3. Enabling and encouraging local feedstock production
4. Strengthening agriculture's role in addressing climate change.

With these four policy principles in mind, Nufarm welcomed the recent measures in the federal budget to support a Future Made in Australia which included investments to back the development of a low-carbon liquid fuels industry in Australia. The government's commitments in the budget will go a long way to encourage increased production and use of low-carbon fuels, accelerate the economy's decarbonisation, and create new industries and jobs in rural and regional areas.

In the context of this consultation process, our submission outlined in Appendix A focuses on how the government can support the Australian agricultural sector:

- Generate renewable fuels demand to attract the investment to build a viable local industry, including the introduction of Sustainable Aviation Fuel (SAF) mandates.
- Support increased production of locally grown feedstocks to meet rising renewable fuel demand.
- Encourage proactive government advocacy for agriculture's role in a local renewable fuels industry.

Before exploring these issues in greater depth below in Appendix A, we note that the consultation paper indicates that "the Australian Government expects to deliver certification arrangements of some production pathways by mid-2028 and intends that certification arrangements will align with international schemes." Nufarm would like to see the finalisation of the certification arrangements in a timelier manner or clarify the interim arrangements that will be critical to providing certainty to feedstock producers.

We strongly believe that there is an urgent need to ensure that we have a standardised approach across our industry that aligns and is consistent with well-established global standards that will alleviate the need to create a new cumbersome regulatory framework for feedstock producers to meet.

We would further submit that ensuring that Australia's certification arrangements for feedstock producers can align with global standards while considering the uniquely Australian production systems.

Nufarm continues to work with organisations, including Sustainable Grain Australia, who are leading the efforts to facilitate the certification of grain in Australia and supporting grower compliance with international standards. We would encourage the Government to consider this approach as industry best practice.

Concerning the comment in the consultation paper that "LCLFs will also strengthen Australia's industrial capabilities, including in Australia's regions", Nufarm believes that our competitive advantage in this country is our ability to access a vast range of feedstocks, many of which are currently being exported.

The development of a mature domestic low-carbon fuels industry will strengthen our sovereign capability, ensure that we have greater fuel security and critically it will be a vital value add to Australia's agricultural supply chain.

Nufarm looks forward to continuing to contribute to the policy discussion to ensure that our company can support the decarbonisation of the transport and agricultural sectors.

Kind regards,

Rachel Palumbo
General Manager – Australia, Nuseed

Appendix A: Harnessing Australia's opportunity to be a low-carbon fuels powerhouse

Bioenergy Australia estimates that 45% of Australia's total energy use comes from liquid fuels. Hard-to-abate sectors such as aviation and transport will continue to rely on liquid fuels in the medium to long term. Locally produced renewable feedstocks and fuels can help decarbonise these hard-to-abate sectors while strengthening Australia's fuel security and supporting the country's net-zero transition.

The CSIRO/Boeing Sustainable Aviation Fuel Roadmap reinforced the importance of fuel security in Australia's net-zero transition by concluding: "Producing liquid fuels from local feedstocks can reduce the reliance on imports, where 90% of liquid fuels are presently sourced for Australia." The roadmap projects that by 2025, Australia will have enough feedstocks to produce 60% of local jet fuel using biogenic feedstocks and is estimated to rise to 90% by 2050.

Decarbonising the liquid fuels we will rely on for decades to come is not a niche solution – it is a scalable, cost-effective way to reduce greenhouse gas emissions from hard-to-abate sectors. Renewable fuels will enable transport sectors to decrease emissions without retrofitting existing fleets. These fuels can also benefit the agriculture sector by decarbonising farm vehicles and machinery which typically have longer lifespans.

Australia has the natural resources and an agricultural sector with the capabilities and sustainability credentials to meet the growing demand for renewable feedstocks while minimising or avoiding land use changes such as deforestation. As we outline below, advances in plant science, crop management and rotation changes, along with clearly defined sustainability standards and certification systems will enable increased crop-based feedstock production that supports decarbonisation and ensures a reliable supply of food and fuel.

Established and emerging solutions

It is important to acknowledge that Australia is already an established exporter of low-emissions crop-based feedstocks for use in renewable fuels in Europe. Most of the canola exported from Western Australia to Europe is converted into renewable fuel due to policy requirements for bioenergy production and use in the EU.

In September 2023, the European Commission reapproved the use of Australian canola in European renewable fuels following the findings of a CSIRO report commissioned by the Australian Department of Agriculture, Fisheries and Forestry that demonstrated the local canola industry's 'low emissions credentials' as an established decarbonisation solution. This highlights three critical points:

1. Australian grain growers are already recognised for their 'low emissions credentials' allowing them to maintain access to international markets and supply chains.
2. Growth in Australian canola production, including for use in renewable fuels in Europe, has not come at the expense of key food crops such as wheat which has also increased in production since 2017/18.[1]

[1] ABARES 2023 data

3. Without a viable domestic renewable fuels industry and market, Australian farmers will continue to sell their feedstocks to more lucrative international markets limiting the potential for additional local decarbonisation.

The CSIRO/Boeing SAF Roadmap highlights the potential for non-edible oilseeds such as Nuseed Carinata to meet bioenergy feedstock demand: "Non-edible oilseeds offer the opportunity of cultivating and utilising crops that do not have to compete with food markets and can use marginal or degraded land."

Nuseed Carinata (a brassica similar to canola) can help Australian farmers meet the rapidly rising demand for renewable feedstocks while reducing their emissions and improving their productivity and sustainability. Nuseed Carinata is a non-food oilseed cover crop, contract grown between main crop rotations, harvested then crushed into an independently certified sustainable lower carbon oil feedstock. It does not compete with food or contribute to land-use change as it is grown under contract as an intermediate crop and can grow on degraded land.

Nuseed Carinata removes atmospheric carbon and restores soil carbon as it grows. It also protects soil from erosion and nutrient loss, increases below and above-ground biomass to regenerate soil, and supports biodiversity through increasing pollinator habitat and crop diversity. A co-product from the Nuseed Carinata oilseed crush is a high-protein meal that can supply the growing market for high-quality animal feeds, supporting our food security.

Nuseed Carinata Oil is a scalable, lower-carbon drop-in replacement for fossil oils that supports decreased carbon emissions without retrofitting existing fleets, including farm vehicles and machinery. The International Civil Aviation Organization (ICAO) includes Nuseed Carinata as a low-carbon fuel feedstock with a similar greenhouse gas footprint as waste and residuals, like used cooking oil.

The development of the Nuseed Carinata program in Australia is underway and we are determining the fit for the crop in the local agriculture system. Hybrid trials continue and we are planning to undertake commercial trials in 2024. Nufarm's global partnership with bp will support the scaling up of feedstock production and processing into renewable fuels for end users.

Recommendations to support a local renewable fuels industry

The Minister for Climate Change and Energy, Chris Bowen, highlighted the potential for renewable fuels in his 2023 Annual Climate Change Statement saying "…the government is continuing to evaluate other opportunities – such as other clean energy technology manufacturing and low carbon liquid fuels – which could provide strategic benefits to Australia by diversifying supply chains and bolstering energy security, as well as creating good jobs."

Nufarm was also encouraged to see the funding and measures announced in the 2024/25 Budget to support the production and demand for low-carbon liquid fuels. Well-designed policy can generate robust demand for lower carbon liquid fuels such as renewable diesel and SAF, driving the development of a local renewable fuels market into which Australian farmers can deliver locally grown feedstocks. These policy recommendations will drive the rapid development of a responsible, globally competitive renewable fuels industry in Australia that directly supports the decarbonisation of hard-to-abate sectors:

1. Generate renewable fuels demand to attract investment to build a viable local industry

The following policy recommendations are critical to generating domestic demand for renewable fuels and help support Australia's global competitiveness in attracting the investment required to establish a local industry:

a) Adopt similar policy incentives that are driving demand for biofuels in other markets. For example, Australia should implement a low-carbon fuel standard as a broad-based market approach to incentivise the development and demand for technologies to decrease the carbon intensity of fuels. Increased domestic demand will encourage investment to quickly scale local feedstock production and spur innovation across the transportation and fuels supply chain.

b) Maximise incentives for renewable fuels under existing policies such as the Safeguard Mechanism. To achieve this, adopting a market-based accounting approach under the National Greenhouse Energy Reporting Scheme will allow safeguard entities to claim the full emissions reductions for biofuels delivered using shared pipework or tanks. Establish a life-cycle based emissions reporting system to underpin additional policies such as a low-carbon fuel standard.

c) Commit the Australian government to procurement targets for Defence and other departments to purchase biofuels to send a clear signal to the market and lock in a baseline of demand.

The policy recommendations made by the Sustainable Aviation Fuel Alliance of Australia and New Zealand (SAFAANZ) to the Jet Zero Council should also be considered. For example, a key demand-side recommendation is the development of a SAF-specific or a sub-target of a broader renewable fuels demand mechanism, implemented with a link to carbon intensity or a SAF-qualifying requirement.

2. Support increased production of locally grown feedstocks to meet rising renewable fuel demand

The following recommendations will support the sustainable production increase of locally-grown feedstocks:

a) Allocate government funding to research and development, capital grants and concessional loans to support sustainable biogenic feedstock innovation, aggregation and productivity.

b) Ensure Australia implements globally aligned standards and certification schemes to ensure our international competitiveness. This requires the identification of the renewable fuels and sustainability criteria to be accepted for use in Australia.

c) Leverage Australia's existing high standards in supply chain integrity and traceability to ensure a domestic certification system is consistent with the standards of established global systems.

The SAFAANZ recommendation to the Jet Zero Council for contracts for difference (CfD) for commercial-scale facilities should also be considered: "CfD would involve government underwriting the development of a SAF market by bridging part of the green premium that exists between SAF and conventional jet fuel through a medium-long-term contract. A CfD acts as a certainty mechanism for projects."

3. Encourage proactive government advocacy for agriculture's role in the local renewable fuels industry

The government has an important role to play in encouraging the agriculture sector to seize the renewable fuels opportunity and to advocate for the benefits to the wider community:

a) Encourage proactive government advocacy to farmers highlighting their crucial role in sustainably producing feedstocks for biofuel production.
b) Policy should reward the adoption of sustainable farming practices to regenerate soil, improve biodiversity and increase greenhouse gas savings.
c) Collaborate with agricultural industry bodies and diverse thought leaders to communicate to the community the environmental, economic and sovereign capability value of utilising locally grown feedstocks. Reinforce the capability of Australian agriculture to sustainably produce food and fuel.