Cleaner Fuels Program Policy Design

Nufarm Submission | December 2025

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Introduction

Nufarm welcomes the opportunity to contribute to the Cleaner Fuels Program as Australia's leading developer of advanced biofuel feedstocks.

Our Commercial Position:

- Nuseed varieties represent approximately 50% of Australia's canola crop
- Active commercial development of Carinata rotation crops in North and South America (>80,000 contracted hectares in 2024)
- Direct contract growing relationships with farmers across multiple countries
- Existing long-term offtake agreements with major fuel producers including BP
- Commercial-scale Australian field trials conducted in 2024 and 2025 (northern NSW and southern Queensland)

This submission addresses feedstock policy settings critical to scaling domestic biofuel supply chains. We focus specifically on:

- Land-use change accounting (DLUC and iLUC)
- Carbon intensity thresholds that reflect Australian dryland agronomy
- Recognition of rotation crops' unique sustainability profile
- Alignment between the Cleaner Fuels Program and the evolving GO Scheme

The Department's current GO feedstock emissions methodology excludes DLUC and iLUC - a material gap that disadvantages Australian-grown rotation crops relative to imported feedstocks. Our submission provides a practical framework for incorporating land-use change in a manner that reflects Australian agricultural reality and rewards genuinely sustainable feedstock choices.

Our detailed responses to all consultation questions follow.

Responses to Consultation Questions

1. Eligible Fuels

Question 1.1: Which LCLF should be eligible?

Nufarm supports eligibility for:

- Sustainable Aviation Fuel (SAF)

- Renewable Diesel (RD)
- Other HEFA/HVO-compatible fuels with verifiable sustainability

These represent the most mature technologies that can immediately leverage domestic oilseed feedstocks.

Question 1.2: Should certain LCLFs be prioritised?

a. Sector prioritisation

Nufarm supports a fuel-neutral framework with additional recognition for:

- sectors with no viable alternatives (e.g. aviation)
- fuels facing the greatest cost disparity

We support differentiated incentives that reflect technology readiness, carbon intensity and abatement potential.

b. Should certain sectors be deprioritised?

Not at this stage.
Australia will continue to rely on LCLFs across aviation, freight, mining and agriculture for decades.

c. Market impacts of prioritisation

Prioritisation can reshape:

- capital flows
- feedstock pricing
- off-take contracting
- supply chain design

A balanced, fuel-neutral framework avoids distortions while allowing targeted uplifts where justified.

2. Type of Production Support

Question 2.1: Fixed or variable production credit?

Nufarm supports a fixed production incentive, complemented by a carbon-intensity uplift.

Benefits

- Strong investment certainty

- High bankability
- Simplified contracting
- Transparent Commonwealth exposure

Limitations

- Does not respond to feedstock price volatility
- May require periodic review

CfDs may suit emerging high-risk pathways but introduce complexity and revenue uncertainty.

Question 2.2: Should priority be based on lowest cost per litre or per tonne CO_2-e avoided?

Yes—with caveats. From a feedstock supplier perspective, prioritising lowest cost per tonne CO_2-e abated is essential - provided the CI methodology is complete. The current exclusion of DLUC/iLUC from the GO feedstock emissions methodology creates a direct commercial disadvantage for Australian-grown rotation crops relative to imported feedstocks with uncertain land-use histories.

The Department's current GO feedstock emissions methodology:

- does **not** include DLUC
- does **not** include iLUC
- does **not** differentiate rotation crops from land-clearing risk feedstocks

Nufarm therefore strongly recommends:

- incorporating DLUC and iLUC into the Program
- ensuring the Program remains adaptable to a future, more complete GO feedstock emissions method
- recognising rotation crops as inherently zero-iLUC and zero-DLUC where land use does not change

This ensures abatement-based comparisons are valid and domestically produced feedstocks are not disadvantaged.

Question 2.3: Should the credit be linked to volume or emissions reduction?

A hybrid model is recommended:

- Base payment per litre to support commercial viability
- CI-based uplift to reward genuinely low-carbon fuels

This structure:

- maintains eligibility for canola
- differentiates Carinata based on its superior carbon performance
- remains compatible with evolving GO requirements

Question 2.4: Domestic vs international deployment costs

Domestic production faces:

- higher construction and labour costs
- market immaturity
- limited scale advantages compared to EU/US markets

A production incentive is essential to overcome these disadvantages and build domestic capability.

Question 2.5: Should project-level caps apply?

Yes.

Caps should:

- reflect facility scale
- ensure value for money
- avoid windfall profits

  but also

- remain high enough for first-mover commercial-scale facilities to close the investment gap.

Question 2.6: Domestic vs export supply

Exports should be permitted.

Restricting export:

- inhibits bankability
- reduces market flexibility

- slows investment

  Australia can ensure domestic supply through complementary demand-side policies rather than export controls.

Question 2.7: Combined production and capital support?

Yes. Capital grants are primarily relevant to fuel producers rather than feedstock suppliers. However, complementary support for feedstock infrastructure (aggregation, storage, logistics) would strengthen project bankability from a supply-chain perspective.

Question 2.8: Other concessional finance?

Yes. From a feedstock perspective, CEFC/NRF support for grower financing arrangements, offtake securitisation, or feedstock infrastructure would be beneficial. Detailed producer-level finance mechanisms are outside our commercial scope.

Question 2.9: Other supply chain support?

Yes. Key needs include:

- regional feedstock aggregation infrastructure
- support for growers to adopt rotation crops
- certification systems that incorporate DLUC/iLUC
- alignment with future GO emissions accounting

Nufarm also recommends that the Program explicitly recognise and prioritise projects that demonstrate genuine collaboration across the supply chain, including feedstock producers, growers, logistics providers, processors and end-users. Integrated or partnered project structures reduce delivery risk, improve bankability, and accelerate scale by aligning feedstock supply, infrastructure investment and offtake from the outset.

Question 2.10: Lessons from overseas

- Long-term policy certainty is critical
- CI-linked incentives improve sustainability outcomes
- LUC recognition is essential for international compatibility
- Incentives must reflect technology maturity

3. Fuel Production

Question **3.1: Which production pathways should be prioritised?**

Nufarm supports prioritising:

- HEFA/HVO pathways as the fastest route to commercial SAF and RD
- Emerging pathways through a dedicated innovation stream

a. Should priority be given to established pathways?

Yes, while continuing to enable innovation.

b. How can nascent pathways compete?

Through targeted uplifts and investor guarantees.

c. Minimum project maturity?

At least FEED stage, with:

- defined feedstock strategy
- preliminary CI modelling
- financial structuring pathway

Question 3.2: Minimum facility size?

No. Australia needs distributed regional manufacturing, including small-to-medium modular plants.

Question 3.3: Should LCLF require a minimum CI reduction?

Yes, but with flexibility while the GO method is still under development.

Nufarm recommends:

- Tiered thresholds (e.g. 40%, then rising over time)
- CI thresholds aligned with a future, complete GO feedstock emissions method
- Explicit recognition that the current GO proposal does **not** yet include DLUC or iLUC
- Ensuring thresholds reflect the reality that Australia's domestic oilseed supply must scale immediately, while higher-performance rotation crops progressively capture a greater share of production over time.

a. Is a CI threshold needed even if incentives are emissions-based?

Yes, to ensure environmental integrity.

b. Should iLUC be included?

Yes — Indirect Land Use Change (iLUC) should ultimately be incorporated into the assessment of carbon intensity for the purposes of the Program, noting that it is not currently included in the Department's proposed approach under the Department's current GO feedstock methodology proposal.

The exclusion of iLUC at this stage represents a material gap in emissions integrity. iLUC is widely recognised internationally as a critical component of lifecycle emissions accounting for bio-based fuels, as it captures the systemic land-use impacts that are not observable at the individual project level but nevertheless affect real-world emissions outcomes. Omitting iLUC risks overstating abatement, reducing comparability with international markets, and undermining confidence in Australia's sustainability claims.

At the same time, Nufarm recognises the complexity of implementing iLUC in a way that reflects Australian agricultural realities, rather than relying on default assumptions developed for very different land-use systems. For this reason, iLUC inclusion should be designed carefully and proportionately, with clear differentiation between feedstocks and production systems.

In particular, rotation crops such as Carinata should be recognised as having negligible or zero iLUC risk, as they are grown within existing farming systems, do not require land conversion, and do not displace food or fibre production. Incorporating iLUC in this manner would appropriately reward feedstocks that genuinely minimise land-use impacts and align strongly with the Program's sustainability objectives.

Importantly, a well-designed iLUC framework would also improve outcomes for Australian-grown canola relative to imported feedstocks, by allowing Australian-specific land-use data and farming practices to be reflected, rather than applying generic international assumptions. This supports both environmental integrity and sovereign feedstock development.

Nufarm recommends incorporating iLUC into:

- the Cleaner Fuels Program be designed to accommodate future inclusion of iLUC,
- iLUC treatment be aligned with the further development of the GO Scheme, and
- early design choices do not lock in an approach that permanently excludes land-use change from lifecycle emissions assessment.
- Carinata, as a rotation crop with no land-clearing, should receive zero-iLUC treatment.

This approach balances environmental credibility, investment certainty and practical implementation, while ensuring that high-integrity Australian feedstocks — particularly rotation crops — are appropriately recognised.

c. Should DLUC be included?

Yes. A complete land-use change framework improves outcomes not only for rotation crops like Carinata, but also for Australian-grown canola relative to imported feedstocks that carry higher and less transparent land-use risks.

Nufarm recommends:

- explicit DLUC recognition
- zero-DLUC designation for rotation crops
- Australian-specific DLUC factors

d. Prioritise or exclude feedstocks?

Nufarm supports prioritising:

- rotation crops (Carinata and canola)
- dryland Australian oilseeds

No feedstock bans are recommended, but sustainability-based differentiation is essential.

Question 3.4: Sustainability criteria beyond CI

Yes. Australia should incorporate:

- rotational sustainability
- soil carbon impacts
- erosion reduction
- biodiversity benefits
- water use efficiency

Carinata performs exceptionally well against these metrics. Nufarm's Carinata production is independently certified under ISCC and RSB standards across our international growing programs. Carinata Oil is recognized by ICAO for industry-leading greenhouse gas reductions similar to waste and used cooking oil (UCO), demonstrating that rotation crops can achieve waste-comparable CI performance through zero land-use change, not just feedstock type.

Question 3.5: Verification schemes

Nufarm supports:

- recognised schemes such as RSB and ISCC
- domestic frameworks under GO
- future modular sustainability criteria reflecting Australian agronomy

4. Other Policy Considerations

Question 4.1: Views on merit factors

We support the proposed merit criteria and recommend:

- greater weight for sustainable feedstock development
- explicit treatment of land-use change
- recognition of rotation crops

In assessing the merit of proposals, Nufarm recommends that positive weighting be given to projects that demonstrate coordinated supply-chain collaboration, including formal partnerships or commercial arrangements across feedstock production, processing, logistics and offtake. Such projects are more likely to reach final investment decision, deliver enduring regional benefits, and reduce reliance on imported fuels and feedstocks. Supply-chain collaboration should be viewed as a proxy for project maturity, delivery confidence and long-term sustainability.

Question 4.2: Community Benefit Principles

From a feedstock perspective, rotation crops such as Carinata are uniquely well aligned with the intent of the Community Benefit Principles, while established oilseeds such as canola play a complementary role in enabling scale and continuity of supply.

Specifically:

- Promoting safe, secure and well-paid jobs: The development of domestic LCLF feedstock supply chains supports stable, regionally based employment across seed production, agronomy services, logistics, storage and processing. Carinata, as an additional crop integrated into existing farming systems, supports incremental employment without displacing food or fibre production, while canola underpins existing jobs and infrastructure.
- Developing skilled and inclusive workforces: Carinata production requires new agronomic knowledge, extension services, seed supply capability and quality assurance systems, creating

opportunities for upskilling within regional communities. These skills are transferable across broader bioenergy and sustainable agriculture sectors. Canola provides a mature platform through which these skills can be deployed at scale.

- Strengthening domestic industrial capabilities and local supply chains: Developing Australian-grown feedstocks reduces reliance on imported fuels and feedstocks, strengthening sovereign capability. Carinata would contribute to long-term feedstock diversification and resilience, while canola supports immediate scale, existing crushing infrastructure and early deployment of domestic LCLF production.
- Opportunities for First Nations agriculture: The expansion of non-food rotation crops creates pathways for First Nations enterprises to participate in new agricultural and energy value chains without competing with food production or requiring land conversion. This aligns strongly with the objectives of a just and inclusive transition.

Projects structured around collaborative supply-chain models are also more likely to deliver durable community benefits, as value is distributed across growers, regional service providers and downstream operators rather than concentrated in a single facility.

Question 4.3: Overseas policy interactions

International LCA frameworks (CORSIA, RED II, GREET) directly impact feedstock competitiveness. Australian policy must ensure:

- Australian-specific DLUC/iLUC factors (not generic international defaults)
- Recognition of rotation crops' zero land-conversion status
- Alignment between GO Scheme and international standards

Australia will need a high-integrity CI method to compete internationally.

Question 4.4: Additional measures needed to achieve FID

- feedstock assurance mechanisms
- CI-linked offtake support
- supply chain infrastructure funding
- transitional thresholds that maintain canola eligibility while rewarding Carinata

Question 4.5: Intersecting policies

Critical dependencies include:

- the evolving GO Scheme
- the National Bioenergy Feedstock Strategy
- State-based renewable fuel strategies
- Defence and Commonwealth procurement
- fiscal settings (excise, depreciation, concessional capital)

Question 4.6: Other feedback

Nufarm highlights the importance of:

1. Avoiding divergence between the Cleaner Fuels Program and the GO Scheme, particularly while the GO feedstock emissions methodology is still under development.
2. Incorporating DLUC and iLUC into Program design, ensuring international compatibility and environmental integrity.
3. Recognising rotation crops (Carinata) explicitly, given they provide disproportionately strong sustainability benefits with no land-use change risk.
4. Ensuring canola remains eligible under transitional thresholds to preserve domestic feedstock scale during early market development.
5. Feedstock supply chain readiness:
    1. Grower investment decisions are made 12-18 months before harvest. Policy certainty on CI thresholds and feedstock recognition is needed well before fuel production facilities reach FID.
    2. Seed supply chains take 2-3 years to scale. Commercial Carinata deployment requires advance breeding, multiplication, and distribution infrastructure.
    3. Contract farming models require price certainty. Growers need multi-year offtake visibility to commit land and capital to new rotation crops.
    4. Australian-specific agronomic validation is incomplete. Further support for field trials and extension services would accelerate commercial-scale deployment.

5. Conclusion

Nufarm strongly supports the Government's commitment to developing a domestic low-carbon liquid fuels industry.

The Program represents an important opportunity to:

- catalyse investment
- support growers
- develop sovereign feedstock capacity
- accelerate regional development
- meet international sustainability expectations

We encourage the Government to adopt a framework that differentiates feedstocks based on genuine environmental performance, incorporates land-use change, and remains fully aligned with the future evolution of the GO Scheme.

We look forward to continuing to work closely with the Department and government agencies as the Program and the GO Scheme progress.