

Energy Crops in Product Guarantee of Origin (PGO) Position Paper

A Submission to the Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW)

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1. Introduction

The Australian Logistics Council (ALC) welcomes the opportunity to provide input on the treatment of energy crops within the Product Guarantee of Origin (PGO) scheme. A credible, transparent, and internationally aligned certification framework is essential to underpin investment in low-emissions fuels and to support practical decarbonisation across Australia’s freight and logistics networks, which rely on energy-dense fuels for long-haul operations. This is relevant across all freight modes, including road, freight rail, and aviation. In particular, the development of Sustainable Aviation Fuel (SAF) will depend on robust and internationally recognised certification frameworks to support market development and enable the decarbonisation of air freight supply chains.

ALC supports the PGO’s emphasis on transparency, traceability, and non-prescriptive reporting. These features reflect operational realities and provide decision-useful information without constraining commercial flexibility. However, the current scope—limited to farm-gate emissions—does not fully reflect the complexity of supply chains. Addressing this through a practical and flexible approach will enhance the scheme’s credibility and utility, particularly for operators managing long-distance, multi-modal logistics networks.

A robust and internationally aligned framework is also critical to maintaining access to global fuel and freight markets. Misalignment with emerging international approaches to lifecycle emissions accounting risks limiting recognition of Australian low-carbon fuels in key export jurisdictions and undermining investment certainty.

2. Recommendations

To ensure the PGO scheme is operationally relevant and provides credible signals to market participants, ALC recommends:

- Maintaining a transparent, non-prescriptive framework that supports multiple fuel pathways, including those relevant to aviation such as SAF.
- Introducing a staged and flexible pathway to incorporate broader lifecycle emissions—such as transport, aggregation, and pre-treatment—through optional or supplementary reporting mechanisms.
- Maintaining flexibility in feedstock treatment while enabling market-informed differentiation of residues, wastes, and purpose-grown crops.
- Supporting a tiered approach to emissions factors, combining simple default values with the option for verified supplier-specific pathways where appropriate.
- Maintaining DLUC, ILUC, and soil carbon as transparent certificate attributes using simplified, comparable approaches.
- Ensuring alignment with broader policy and demand-side mechanisms, including procurement and fuel incentives.

These measures will enhance the scheme’s credibility, facilitate investment, and support practical adoption of low-carbon fuels across freight and logistics networks, without imposing prescriptive or premature regulatory obligations.

3. Strategic Context

Australia’s freight and logistics system operates under unique geographic and operational constraints. Long distances, dispersed populations, and a high reliance on diesel across road and freight rail make low-carbon liquid fuels a critical transitional pathway. Electrification remains limited for high-productivity, long-haul freight tasks, particularly in regional and remote areas. Within these settings, air freight faces its own decarbonisation challenge, with Sustainable Aviation Fuel (SAF) representing a key pathway. Both logistics segments require scalable, energy-dense fuel solutions supported by credible certification frameworks.

In this context, domestic bioenergy solutions, including fuels derived from energy crops, offer practical decarbonisation potential. The PGO scheme can strengthen confidence in these pathways by providing verified, comparable information on emissions and feedstock attributes, supporting emissions reporting, procurement decisions, and long-term investment planning. The scheme should also be recognised as enabling infrastructure for freight decarbonisation, providing the trusted data and certification layer required to support fuel switching, contractual transparency, and Scope 3 emissions reporting across supply chains.

Expanding domestic low-carbon fuel production also has important implications for fuel security. Diversified, locally sourced fuel pathways can reduce reliance on imports and strengthen supply chain resilience, particularly during periods of global disruption.

4. System Boundaries and Lifecycle Emissions

The current PGO approach focuses on emissions at the farm gate. While this provides a practical starting point, it does not capture the full complexity of supply chains, particularly in the Australian context where transport distances and pre-processing requirements can be significant. ALC recognises that expanding system boundaries to include transport, aggregation, and pre-treatment emissions may introduce additional complexity and should not impose unintended cost or reporting burdens. ALC therefore supports a phased and flexible approach, where these emissions are incorporated through optional or supplementary reporting pathways, rather than embedded within default emissions factors. This allows participants who require more detailed lifecycle information—such as for Scope 3 reporting or international markets—to access it, while maintaining simplicity for broader market participation.

5. Feedstock Eligibility and Emissions Factors

Flexibility in feedstock eligibility is essential to maintain investment certainty and market participation. ALC supports a framework that provides transparent information on feedstock type without prescribing specific inputs. Optional classification tiers—such as residues, waste, and purpose-grown crops—can provide useful market signals while preserving flexibility.

A non-prescriptive approach also supports innovation and the emergence of new fuel pathways, including waste-derived and circular economy solutions relevant to freight and logistics supply chains. Default emissions factors should remain simple, practical, and accessible to support broad participation. Where material differences arise due to regional conditions, infrastructure constraints, or logistics pathways, the framework should allow these to be reflected through supplier-specific methodologies rather than increasing baseline complexity. A tiered approach—combining accessible default factors with the option for verified supplier-specific pathways—provides an effective balance between simplicity and accuracy and supports investment in lower-emissions production and supply chain optimisation.

6. Benefits and Market Utility for Freight and Fuel Supply Chains

For ALC members—including road and freight rail operators, ports, airports, and fuel suppliers—the value of the PGO scheme lies in providing credible, verified information that supports practical decarbonisation. For aviation, this includes supporting certification and procurement pathways for SAF in a manner compatible with international frameworks. For land-based freight, it supports emissions reporting, procurement decisions, and optimisation of fuel supply chains. Optional lifecycle reporting can improve the scheme’s relevance for Scope 3 emissions and strategic planning, while flexible feedstock classification and supplier-specific pathways support market responsiveness and encourage domestic investment.

The effectiveness of the PGO scheme will depend on its integration with broader policy settings. Alignment with demand-side mechanisms—including government procurement, low-carbon fuel incentives, and energy and infrastructure programs—will be critical to translating certification into practical uptake. Without this alignment, there is a risk that the scheme provides transparency without sufficient market signal to drive investment at scale.

7. Land Use Change and Soil Carbon Attributes

ALC supports the PGO approach of treating Direct Land Use Change (DLUC) and Indirect Land Use Change (ILUC) as certificate attributes rather than embedding them directly in headline emissions values. This approach supports transparency, comparability, and alignment with international certification frameworks, including those relevant to aviation fuel markets, while avoiding undue complexity or penalisation of producers. It also mitigates key risks associated with excluding land-use change considerations, including reduced confidence in sustainability claims, potential misalignment with international markets, and unintended competitive distortions between domestic and imported feedstocks.

Simplified, attribute-based approaches—such as qualitative risk categories—support usability across freight modes while maintaining environmental credibility.

8. Conclusion

The PGO scheme represents a significant step in supporting Australia’s transition to low-emissions fuels. Its success will depend on its ability to reflect the complexity of supply chains, provide credible and internationally aligned emissions information, and enable practical uptake by market participants. ALC supports the scheme’s transparency-based approach, while recommending targeted enhancements to improve flexibility, usability, and alignment with real-world supply chain operations. A phased and optional approach to broader lifecycle emissions, combined with flexible feedstock treatment, tiered emissions factors, and attribute-based reporting for DLUC, ILUC, and soil carbon, will ensure the PGO scheme remains practical and scalable across all freight modes.

ALC looks forward to continued engagement to ensure the framework supports market-ready pathways to decarbonisation, strengthens fuel security, and enhances the resilience and competitiveness of Australia’s freight and logistics networks.