Cleaner Fuels Program- Policy Design

A Submission to the Australian Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts (DITRDCSA)

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1. Introduction

The Australian Logistics Council (ALC) welcomes the opportunity to comment on the Cleaner Fuels Program Policy Design and Engagement Paper released by the Australian Department of Infrastructure, Transport, Regional Development, Communications, Sport, and the Arts (DITRDCSA).

The Program's objective—to catalyse a domestic low-carbon liquid fuels (LCLF) industry[1] through production-linked incentives—aligns closely with ALC's long-standing advocacy for improved fuel security, strengthened sovereign capability, and greater resilience across Australia's freight and logistics system. Freight and logistics underpin Australia's economic activity, supply chain reliability and community wellbeing. Ensuring this system can decarbonise without undermining productivity, affordability or reliability is therefore a matter of national economic importance.

ALC represents major freight, transport and supply-chain companies operating across road, freight rail, ports, intermodal terminals, maritime and aviation, as well as associated logistics, manufacturing, and fuel supply services. Many ALC members are large liquid-fuel users actively pursuing emissions-reduction pathways across their operations. These efforts are occurring against a backdrop of rising freight demand, cost pressures and tightening emissions expectations

[1] https://www.dcceew.gov.au/sites/default/files/documents/net-zero-report.pdf

across domestic and international markets. Freight rail, in particular, provides a critical backbone for long-distance movement of bulk commodities and containerised freight, making its decarbonisation central to the sustainability of Australia's end-to-end supply chains.

Recent national greenhouse gas data underscore the importance of addressing transport emissions. In the year to March 2025, transport accounted for around 22 per cent of Australia's total greenhouse gas emissions[2], with road transport and aviation the largest contributors. Freight activity across road, rail, aviation, and maritime accounts for a substantial share of these emissions, reflecting Australia's geography, dispersed population, and reliance on long-distance supply chains.

Decarbonisation of transport fuels must therefore be pursued in a way that sustains freight productivity, minimises cost pressures on shippers and consumers, and preserves the reliability of critical supply chains. Transition pathways that impose excessive cost or operational disruption on freight risk undermining affordability, regional connectivity, and national resilience. In this context, low-carbon liquid fuels play an essential role. They provide a pathway to materially reduce emissions from existing fleets and infrastructure, particularly for freight tasks that are difficult to electrify in the near to medium term. The Cleaner Fuels Program therefore represents an important mechanism to support emissions reduction while maintaining the performance and resilience of Australia's freight system.

2. The Role of LCLFs in a Technology-Neutral Transition

ALC supports a technology-neutral, multi-pathway approach to decarbonising freight and logistics. Freight tasks vary significantly by mode, operating environment, and asset class. No single technology can credibly meet the sector's diverse requirements in the near to medium term. Battery-electric technologies are advancing for light vehicles and some medium-duty urban applications. Hydrogen-based technologies may play a role over time in selected high-duty or long-distance tasks. However, a substantial proportion of freight activity—including long-haul heavy road freight, regional and remote operations, freight rail, maritime services, and aviation—will continue to rely on internal combustion engines for the foreseeable future. This reflects well-established constraints, including long asset lives, limited refuelling or charging infrastructure across vast distances, payload requirements, high utilisation rates and strict reliability expectations.

National and international analysis consistently identifies heavy road freight, freight rail, aviation, and maritime transport as among the most difficult segments to electrify in the near to medium term. In this context, decarbonisation pathways that can be deployed using existing vehicles, engines, and fuel distribution infrastructure[3] are particularly valuable, as they enable emissions reduction without undermining operational viability or requiring premature asset retirement. Low-carbon liquid fuels provide such a pathway[4]. As drop-in or near drop-in alternatives to conventional diesel and jet fuel, they can deliver immediate and material emissions reductions without wholesale fleet replacement or major new infrastructure. This allows abatement to proceed in parallel with longer-term transitions in vehicles, energy systems and infrastructure. For freight operators, this is not a matter of technological preference, but of operational continuity and economic feasibility in highly competitive markets.

Within this context, paraffinic renewable diesel—particularly hydrotreated vegetable oil (HVO)—offers substantial lifecycle emissions reductions, full drop-in compatibility and no requirement for fleet modification or reinvestment. It is currently the most commercially mature and immediately deployable decarbonisation pathway for heavy road freight, freight rail and suitable maritime applications. These fuels are regulated domestically under the Fuel Standard (Paraffinic Diesel) Determination 2025[5], aligned with EN 15940, providing critical regulatory certainty for original equipment manufacturers and operators. This clarity removes a significant adoption barrier and supports confidence in fuel quality, performance, and consistency.

Similar dynamics apply in aviation, where sustainable aviation fuels (SAF) represent the principal near-term decarbonisation pathway. International aviation has committed to net-zero carbon emissions by 2050 under the International Civil Aviation Organization's Long-Term Global Aspirational Goal (LTAG)[6] . The Cleaner Fuels Program therefore presents an opportunity to support emissions reduction across both freight and passenger transport in the hardest-to-abate segments.

[2] https://www.dcceew.gov.au/energy/transport

[3] https://fleetautonews.com.au/understanding-renewable-diesel-what-fleet-managers-need-to-know

[4] https://www.climatechangeauthority.gov.au/sites/default/files/documents/2024-09/2024SectorPathwaysReviewTransport.pdf, p. 2

[5] https://www.dcceew.gov.au/climate-change/emissions-reduction/regulating-fuel-quality

[6] https://www.icao.int/environmental-protection/long-term-global-aspirational-goal-ltag-international-aviation

Program design should explicitly recognise the diversity of freight applications and differing levels of technology readiness across modes. Within a genuinely technology-neutral framework, priority should be given to fuels capable of delivering immediate emissions reductions while preserving operational continuity. Renewable diesel, including HVO, currently represents the most mature, lowest-risk and fastest-to-scale option for heavy transport. Maximising uptake of such ready-to-deploy fuels is essential to achieving near-term emissions outcomes while emerging technologies continue to develop.

ALC also notes that transition economics vary significantly across freight modes. Without complementary demand-side measures—such as targeted incentives through Fuel Tax Credit or Road User Charge frameworks, or consumption-linked mechanisms that reduce the price premium for LCLFs—market uptake is likely to be slower than required. Ensuring production incentives translate into end-user affordability will be critical to achieving the Program's emissions reduction and fuel security objectives. Without near-term decarbonisation options that can be deployed across existing fleets and infrastructure, emissions reduction in these freight segments will be delayed, regardless of longer-term technology ambition.

3. Eligible Fuels and Prioritisation

ALC supports the Cleaner Fuels Program encompassing a broad range of low-carbon liquid fuels, including renewable diesel and HVO, sustainable aviation fuels, e-fuels, and other eligible bio-derived fuels, subject to robust sustainability and lifecycle emissions criteria. A broad eligibility scope accommodates the diversity of freight tasks across road, freight rail, maritime and aviation, while allowing innovation and emerging pathways to develop over time.

Technology neutrality, however, does not preclude strategic prioritisation. From a freight and logistics perspective, emissions reduction is required now, not solely in the longer term. Major freight operators consistently identify renewable diesel, including HVO, as the only commercially mature, immediately deployable LCLF capable of delivering large-scale abatement without changes to vehicles, infrastructure, or operating practices. Its compatibility across long-haul heavy road freight, rail haulage and certain maritime applications makes it particularly well suited to early-stage scaling. Failure to recognise these differences in technology readiness risks allocating public support to pathways that are not capable of delivering material emissions reduction within the timeframes required.

In aviation, similar considerations apply. SAF is widely recognised as the primary near-term pathway to reduce aviation emissions, given the absence of viable alternatives for long-haul flight and the long asset lives of aircraft.

The Program should therefore prioritise fuels capable of delivering substantial emissions reductions in hard-to-abate segments in the near term, while maintaining eligibility for emerging pathways as costs fall and supporting infrastructure develops. This approach balances ambition with practicality and ensures public investment delivers timely emissions outcomes.

ALC also highlights the importance of safeguarding domestic supply. Without appropriate settings, domestically produced LCLFs may be exported to jurisdictions offering higher credit values, undermining Australia's decarbonisation, and fuel-security objectives. Mechanisms to support domestic availability, including potential supply-reservation or offtake requirements, should be considered as part of the Program's market-integrity framework.

Domestic feedstock availability is also critical. Australia currently exports significant volumes of feedstocks suitable for LCLFs, including used cooking oil and tallow. Predictable production incentives and competitive domestic processing conditions will be essential to retaining these inputs onshore and reducing the cost base for domestic producers.

4. Production Support Design and Investment Certainty

ALC strongly supports production-linked incentives as the core mechanism for the Cleaner Fuels Program. Linking support to verified output rather than upfront capital expenditure reduces fiscal risk and aligns public investment with actual fuel production and emissions outcomes.

From an investor perspective, revenue certainty is critical to reaching final investment decisions. Both fixed per-litre credits and contract-for-difference (CfD) mechanisms can provide this certainty if designed transparently, allocated competitively, and linked to verified lifecycle emissions performance. Fixed credits offer predictability attractive to financiers, while CfDs can better align support with market conditions by topping up revenue when market prices fall below a strike price.

Competitive allocation processes are essential to ensure support levels reflect efficient costs and do not over-subsidise production. Allocation criteria should prioritise emissions abatement per dollar of public support, scalability, contribution to fuel security and regional benefits, rather than focusing solely on volume.

ALC emphasises that production incentives must translate into end-user affordability. Freight operators consistently report that, without complementary demand-side measures, LCLFs may remain commercially out of reach despite domestic production[7]. The Program should therefore be complemented by mechanisms that reduce price premiums, encourage price pass-through and ensure that public support delivers tangible benefits to Australian freight and aviation users.

Finally, safeguards are needed to address the risk of subsidised fuels being exported. Options could include domestic offtake requirements or adjustment mechanisms to ensure that officially supported fuels contribute to national emissions reduction and fuel security objectives.

5. Fuel Production Pathways, Technology Readiness and Scale

The Program's focus on advanced, late-stage technologies capable of delivering meaningful volumes in the near term is appropriate. Established production pathways—such as hydrotreatment routes for renewable diesel and HVO, and HEFA pathways for SAF—have demonstrated technical viability and are already being deployed internationally.

Prioritising these pathways allows Australia to leverage international experience, reduce technological risk and move more quickly to domestic production. At the same time, flexibility should be retained to support emerging pathways, including power-to-liquid e-fuels, where these demonstrate credible development trajectories and long-term system value.

Eligibility settings should recognise different production scales. Large, centralised facilities can deliver economies of scale and significant national supply. Smaller or modular facilities may be better suited to dispersed feedstocks, regional locations, and incremental capacity growth. Both models can contribute to emissions reduction and fuel security if appropriately supported.

ALC also notes that freight infrastructure was not designed for rapid, large-scale electrification of heavy fleets. Prioritising LCLF pathways that minimise infrastructure impacts will reduce transition costs and avoid productivity penalties, reinforcing the role of mature LCLFs as a critical bridging solution.

6. Carbon Intensity Thresholds and Sustainability Criteria

ALC supports the use of minimum lifecycle carbon-intensity thresholds as an eligibility requirement. A threshold of around a 50 per cent reduction relative to fossil fuel comparators represents a reasonable baseline, consistent with international practice, while remaining achievable for mature renewable diesel and SAF pathways.

Lifecycle emissions calculation and verification should align with the emerging Guarantee of Origin framework[8]. A consistent, transparent, and internationally aligned certification approach is essential to support market confidence, accurate emissions accounting, and investment decisions.

Lifecycle analysis should be applied consistently to both LCLFs and fossil fuel comparators, ensuring credible benchmarking and a level playing field. Integration with the Guarantee of Origin framework will also support traceability and help prevent export leakage of officially supported fuels.

Beyond carbon intensity, sustainability criteria should address land-use impacts, biodiversity, water use, food and fibre security and social considerations, including engagement with First Nations communities. Recognising credible domestic and international certification schemes will minimise duplication while maintaining high environmental standards and supporting domestic feedstock development.

7. Fuel Quality Standards, Paraffinic Diesel, and Market Confidence

Clear and consistent fuel quality standards are foundational to market uptake. The Fuel Standard (Paraffinic Diesel) Determination 2025, aligned with EN 15940, provides critical regulatory certainty for paraffinic diesel, including HVO.

[7] https://www.cefc.com.au/media/jh3gvm14/refined-ambitions-exploring-australia-s-low-carbon-liquid-fuel-potential.pdf

[8] https://www.atse.org.au/media/5z0nb2dj/atse-decarbonising-diesel-industries-report-final.pdf

This alignment gives operators confidence in engine compatibility, performance, and warranty coverage, enabling adoption without asset modification or operational disruption. With standards now established, policy focus should shift to deployment, affordability, and supply availability.

Ongoing harmonisation with international testing and certification practices, clear labelling and integration with the Guarantee of Origin framework will further strengthen market confidence and transparency.

8. Demand-side Viability and End-user Readiness

Although the Cleaner Fuels Program is primarily supply-side, its success ultimately depends on demand-side viability. Freight operators operate on narrow margins, limiting their capacity to absorb sustained fuel-price premiums. If demand-side constraints are not addressed, there is a material risk that the Program delivers fuel production without achieving corresponding uptake or emissions reduction in the freight sector.

In such circumstances, public investment risks subsidising fuel volumes that do not contribute to domestic fuel security or national emissions outcomes.

Complementary demand-side measures—such as targeted adjustments to Fuel Tax Credit or Road User Charge settings, or consumption-linked mechanisms—may be required during the early years of the Program to bridge the cost gap while supply scales and costs fall.

Reliable access to fuels across major freight corridors, ports, intermodal terminals, and regional depots is also critical. Infrastructure co-investment and coordinated planning will be required to ensure that increased production translates into practical availability for industry.

9. Community Benefit Principles and Regional Development

The Cleaner Fuels Program sits within the Future Made in Australia Act and should be assessed against the Community Benefit Principles. LCLF production can deliver significant regional benefits, including employment, skills development, and industrial diversification.

Priority should be given to projects demonstrating durable regional impacts, strong workforce development outcomes and meaningful engagement with First Nations communities. Smaller or modular facilities may play a particularly key role in supporting regional fuel security and economic participation.

10. Interaction with Other Policies and Concluding Remarks

The Cleaner Fuels Program will operate alongside a broader suite of transport, energy, and climate policies, including fuel quality reforms, vehicle efficiency standards, the Transport and Infrastructure Net Zero Roadmap and the Guarantee of Origin framework. Coherence across these settings is essential to support investment confidence and avoid unintended cost or operational impacts on freight.

When well designed, the Cleaner Fuels Program can play a catalytic role in establishing a domestic low-carbon liquid fuels industry that reduces emissions, strengthens fuel security, and supports freight productivity. To achieve this, the Program should:

- Support a broad range of LCLFs while prioritising mature, near-term pathways such as renewable diesel and SAF.
- Provide investment-grade certainty through competitive, production-linked incentives.
- Ensure production incentives translate into domestic affordability and availability.
- Integrate robust sustainability, certification, and fuel quality frameworks.
- Deliver tangible regional and First Nations benefits.

ALC and its members look forward to continuing to work with Government to refine Program settings and support the development of a competitive, resilient, and sustainable domestic low-carbon liquid fuels industry capable of underpinning Australia's freight and logistics system on the path to net zero.