



**MIAL submission to:
Cleaner Fuels Program
– Policy Design and
Engagement Paper**

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1. About MIAL

1.1. Maritime Industry Australia Ltd (MIAL) is the voice and advocate for the Australian maritime industry. MIAL is at the centre of industry transformation, coordinating and unifying the industry and providing a cohesive voice for change.

1.2. MIAL represents Australian companies which own or operate a diverse range of maritime assets from international and domestic trading ships; floating production storage and offloading units; cruise ships; offshore oil and gas support vessels; domestic towage and salvage tugs; scientific research vessels; dredges; workboats; construction and utility vessels and ferries. MIAL also represents the industries that support these maritime operators – finance, training, equipment, services, insurance and more. MIAL provides a full suite of maritime knowledge and expertise from local settings to global frameworks. This gives us a unique perspective.

1.3. We work with all levels of government, local and international stakeholders ensuring that the Australian maritime industry is heard. We provide leadership, advice and assistance to our members spanning topics that include workforce, environment, safety, operations, fiscal and industry structural policy.

1.4. MIAL's vision is for a prosperous Australia with strong sovereign maritime capability.

1.5. MIAL's overarching position concerning maritime policy in Australia is that we ought to have a sustainable, viable maritime industry. This activity can occur anywhere – coastal, offshore, and international. This maritime activity should encompass anything – freight, tourism, passenger movement, port and harbour services, offshore oil and gas, construction, scientific/research, essential services, and government services.

1.6. MIAL is an advocate for a fiscal and regulatory regime that makes it attractive for shipping and maritime businesses to exist in Australia and affords those Australian businesses every opportunity to compete for work and participate in maritime activity worldwide.

2. Executive Summary

2.1. MIAL welcomes the opportunity to provide feedback on behalf of its members into the 'Cleaner Fuels Program – Policy Design and Engagement Paper' consultation process.

2.2. MIAL has been engaged closely with the development of LCLF fuels policy through previous consultations and 1:1 interviews. MIAL strongly supports the development of a domestic LCLF industry to support a cost-effective decarbonisation pathway for hard to abate industries like maritime and provide increased supply chain resilience and fuel security.

2.3. From the perspective of Australia's maritime industry, the single most important determinant of decarbonisation pace is the cost differential between traditional marine fuels and low- and zero-carbon liquid fuels (LCLF) such as advanced biofuels, e-methanol, e-diesel, and other sustainable drop-in fuels. While shipowners and operators are increasingly willing to trial new fuels and technologies, they operate in highly competitive, low-margin international markets.

2.4. If LCLF remains materially more expensive than conventional fuel oils, early movers face a structural cost penalty that cannot be passed through reliably to charterers, cargo owners or indeed customers. This creates a strong disincentive to invest, even where the technology risk is manageable.

2.5. Crucially, this cost delta will not narrow at the speed required through market forces alone. The supply side faces high capital costs for new production facilities, uncertain offtake, and policy risk; the demand side faces volatile fuel prices and intense competition from vessels and routes that do not face equivalent abatement requirements. In the absence of clear, durable policy signals, neither side can justify the long-term investments needed to scale LCLF and drive unit costs down. For Australia, this risks both missing emissions-reduction opportunities in the domestic fleet and ceding first-mover advantage in green shipping corridors and fuel production to other regions where policy frameworks are more mature.

2.6. Accordingly, from a Maritime Industry Australia Ltd (MIAL) perspective, effective policy must explicitly target the fuel cost gap. Government intervention should focus on creating predictable, investable demand for LCLF and de-risking early production, so that over time economies of scale, learning-by-doing and supply-chain optimisation can bring costs closer to parity with conventional fuels. Without this, even well-intentioned regulatory measures (such as higher performance standards or emissions constraints) risk becoming purely punitive, increasing costs for Australian trade without unlocking the fuel and infrastructure investments that are needed to decarbonise.

3. Response to Engagement Paper questions

Question 1.1: Which LCLF should be eligible under the program and why?

From a maritime perspective, eligibility should be technology-neutral but strictly performance-based, anchored in lifecycle emissions and robust sustainability standards. Eligibility should be aligned with international practice and standards where available.

We consider the following broad categories of LCLF should be eligible where they meet defined lifecycle carbon intensity (CI) and sustainability criteria:

- **Advanced biofuels and renewable diesel (near term deployment, 'drop in fuels')**
 - HVO (renewable diesel), advanced biodiesel, and similar fuels that can be used as drop-in replacements (subject to fuel standards and engine OEM limits)
 - These are closest to deployment at scale in existing shipping fleets and can make immediate contributions to emissions reductions without large capital changes in vessels or ports.
 - BioLNG and bio-methanol should also be eligible.
- **Synthetic/e-fuels produced from renewable electricity and captured carbon (longer term 'future fuels')**
 - Ammonia and methanol and other renewable fuels of non-biological origin with demonstrably low lifecycle CI.
 - These are critical for long-term deep decarbonisation and will be important for green shipping corridors and export opportunities.

Question 1.2: Should certain types of LCLF be prioritised over others?

We support prioritisation based on sectoral need and availability of alternative decarbonisation pathways, rather than on the label of the fuel alone.

- Sectors with the fewest viable alternatives for example deep-sea shipping should be seen as high-priority offtake markets of LCLF.
- Road and rail transport and some stationary uses have more mature electrification and battery options, and therefore do not need to be the primary beneficiaries of scarce LCLF supply.

From a maritime industry perspective:

- LCLF suitable for maritime use (e.g., HVO (renewable diesel), bio- and e-methanol, other marine-grade drop-in fuels) should not be structurally de-prioritised relative to SAF.
- The development of SAF production should not come at the expense of shipping's access to fuels needed to decarbonise critical supply chains, remote and regional services, and Australia's export trades.

Question 2.1: Fixed vs variable production credit; design issues

Fixed vs variable credit

From an investment and maritime user perspective, we support a variable (market-linked) production credit, rather than a purely fixed amount per litre, because:

- The cost delta between LCLF and fossil fuels is highly uncertain and volatile. A fixed credit will either be too low (failing to close the gap) or unnecessarily generous in some market conditions.
- A variable mechanism (e.g., contracts-for-difference or a sliding credit) can track the evolving price differential and provide producers with revenue certainty while minimising over-compensation.

Outcomes with available funding

With finite funding, the program can:

- De-risk a first wave of commercial projects across multiple feedstocks and pathways.
- Demonstrate bankable models linking production to long-term offtake, including for marine fuels, thereby reducing the cost of capital for subsequent projects.
- Begin to narrow the cost delta or users in hard-to-abate sectors, particularly where shipping fuels can be bunkered domestically.

Mechanisms that provide investment certainty / bankability

The greatest certainty is likely to come from:

- A legislated, transparently formula-based variable credit linked to verified CI and a reference fossil fuel price.
- Where appropriate, long-term revenue certainty mechanisms (e.g., Contracts for Difference-style arrangements) that producers can use to underpin debt financing.

How LCLF pricing is likely to be set

In the short to medium term, we expect LCLF pricing to be:

- A premium over equivalent fossil fuels, reflecting higher production costs and scarcity.
- Influenced by import prices and foreign support schemes, particularly for SAF and synthetic fuels; and
- Increasingly referenced to carbon abatement value (e.g., \$/tCO₂-e reduced) as markets and accounting systems mature.

In the longer term, as supply scales, we expect:

- LCLF to move towards a global commodity-like pricing structure, with carbon intensity and certification remaining key differentiators, and
- Support mechanisms to decline as the intrinsic cost delta narrows due to market maturation.

Question 2.2: Prioritising lowest-cost projects

We agree that cost-effectiveness should be a central criterion, preferably measured per tonne of CO₂-e avoided rather than per litre produced.

However, cost should not be the sole determinant. From a maritime perspective, prioritisation should also reflect:

- Contribution to hard-to-abate sectors such as shipping.
- Geographic and feedstock diversity and sustainability and ability of project to provide positive community benefits, including projects serving regional ports and remote maritime communities.
- Potential to support future export and bunkering hubs, protecting Australia’s competitiveness in global shipping.
- It is important to recognise the ability to scale to a reasonable portion of sector demand. There is little benefit in developing a low-cost sector that cannot grow to enable meaningful contribution.
- Priority should also consider existing commitments such as established green corridors.

Question 2.3: Link credit to volume vs emissions savings

We support linking the production credit primarily to the carbon emissions saving potential rather than volume alone.

Such a structure:

- Rewards greater carbon benefit,
- Avoids subsidising fuels with marginal CI gains, and
- Maintains comparability across different fuel types and end uses, including marine fuels.

Question 2.4: Domestic vs international deployment costs

We expect the cost of deploying LCLF domestically to be higher in the near term than in some established international markets because:

- Many projects will be first-of-a-kind or early-of-a-kind in Australia.
- There may be higher capital and infrastructure costs in regional locations and port precincts.
- Supply chains for sustainable feedstocks are still emerging.

That said, local production brings benefits that justify some ‘local premium’:

- Fuel security and resilience for critical domestic shipping and trade.
- Regional employment and industrial capabilities in port and coastal communities.
- Strategic positioning of Australia as a producer and exporter of green marine and aviation fuels, benefiting our maritime sector.

The program should acknowledge this premium and ensure domestic projects are not structurally disadvantaged against imported LCLF.

Question 2.5: Cap per project

We support a cap on the total value of production credits per project to manage fiscal risk and avoid concentration of support.

However, the cap should:

- Be high enough to support world-scale facilities and multi-product plants (e.g., supplying both aviation and marine fuels).
- Scale with project size, duration, and CI benefit; and
- Be clearly defined and transparent to support bankability.

Question 2.6: Domestic supply vs export

From a maritime industry standpoint, the program should support both domestic supply and export.

- Restricting export would reduce investor interest and scale, undermining Australia’s potential as a regional LCLF hub for shipping and other LCLF off takers.
- Conversely, an export-only focus would leave domestic shipping, ports and coastal communities exposed to high abatement costs and fuel insecurity.

We therefore recommend:

- Allowing export, but with minimum domestic supply commitments and clear eligibility benefits where projects demonstrably serve domestic hard-to-abate sectors, including shipping.

Question 2.7: Role for combined production support and capital grants

Yes. For first-of-a-kind and early-of-a-kind plants, a combination of capital grants and production credits is often essential:

- Capital grants address upfront technology and construction risk, particularly for complex integrated projects in ports or regional locations.
- Ongoing production credits underpin operational viability and offtake agreements.

This combined approach is consistent with emerging practice in other jurisdictions supporting SAF and clean fuels and is particularly important where facilities will supply multiple sectors including marine.

Beyond production incentives, the maritime industry sees clear needs for:

- **Port and bunkering infrastructure support** – storage, blending, and bunkering facilities for new marine fuels, including standards and safety regulation.
- **Feedstock supply chain development** – logistics for wastes and residues, including from coastal and regional industries.
- **Certification and accounting frameworks** that enable shipping companies and cargo owners to claim emissions reductions from LCLF use (aligned with any relevant existing international programs or standards)
- **Skills and training support** for seafarers, port workers and fuel handlers in safe handling of new fuels.

These elements are essential to transform production credits into actual LCLF use in Australian shipping.

Question 2.10: Lessons from other jurisdictions

Key lessons from international experience include:

- **CI-based, technology-neutral support works best** – schemes that reward lifecycle emissions performance rather than picking specific technologies have proven more flexible and innovation-friendly.
- Australia should design its LCLF program to pair supply-side production support with credible demand-side measures (e.g., hard to abate industry decarbonisation policies) and avoid over-reliance on mandates or on any single sector.

Question 3.1: Production pathways and project readiness

Which pathways to focus on / prioritise

Primary focus on established and near-commercial pathways capable of supplying marine and aviation fuels in the 2030s, such as:

- HEFA/HVO and advanced biodiesel.
- Biomass-to-liquids (Fischer-Tropsch) diesel and kerosene.
- Renewable methanol and e-methanol.
- Ammonia – early stage focused on CI reduction rather than technology and including gas-based solutions.

A dedicated innovation stream for nascent pathways (e.g., advanced e-fuels, novel biochemical routes) with higher risk but high long-term potential.

Established vs nascent pathways.

We agree that more-established pathways (e.g. HEFA/HVO) should be prioritised for the main production credit stream, given their lower technology risk and greater readiness to supply shipping and aviation.

However, nascent pathways should be encouraged to compete via:

- A separate, innovation-oriented funding window with tailored risk appetite.
- Higher allowable support per tonne of abatement where justified.
- Stronger requirements on learning and knowledge-sharing, so the public obtains value from supporting higher-risk projects.

Question 3.2: Minimum facility size

We do not support a strict minimum facility size that excludes smaller regional or modular projects.

- Some maritime applications (e.g., supply to remote coastal communities, niche shipping routes) may be best served by smaller facilities close to feedstock sources and ports.
- Imposing a high-size threshold risks concentrating investment in a small number of large plants serving only major hubs.

Instead, minimum size (if any) should be modest and linked to:

- Demonstrated cost-effectiveness and
- Ability to achieve meaningful emissions reductions over the credit period.

Question 3.3: Carbon intensity thresholds

Carbon intensity threshold

We support requiring LCLF to meet a minimum lifecycle carbon intensity reduction threshold relative to a fossil baseline to be eligible.

Treatment of Indirect Land Use Change (ILUC)

ILUC effects should be included, or at least cautiously managed, in the CI methodology to avoid:

- Driving unsustainable land use change.
- Undermining the integrity and social licence of LCLF.

We suggest using internationally recognised methodologies (e.g. EU RED-type approaches) and erring on the side of excluding high-ILUC risk feedstocks where evidence is strong.

Feedstock prioritisation and exclusions

We recommend:

- Prioritising: wastes and residues (agricultural, forestry, municipal, industrial); non-food energy crops on degraded land; by-products and tallow where sustainably sourced.
- Discouraging or excluding feedstocks associated with deforestation, high ILUC risk or significant social/environmental concerns.

Question 3.4: Other sustainability criteria

Beyond CI, the program should include consider other sustainability criteria, such as:

- **Biodiversity and land stewardship** – protection of high conservation value areas.
- **Water use and quality** – particularly for water-intensive processes in arid regions.
- **Social and labor standards** – including engagement with First Nations communities and fair work standards.
- **Waste hierarchy and circularity** – prioritising genuine waste and residue use over material that could be used more efficiently elsewhere.
- **Local air quality and safety** – especially in port precincts.

These criteria should be proportionate and aligned with existing schemes to avoid duplicative compliance. Linkage to specific, established criteria is preferable.

Question 3.5: Sustainability schemes for verification

We support recognising trusted international and domestic sustainability certification schemes, with mutual recognition where possible. Verification systems should be transparent, auditable, and interoperable with maritime emissions reporting and fuel accounting frameworks.

Question 4.1: Factors affecting the merit of a proposal.

From a maritime industry viewpoint, appropriate merit factors include:

- **Emissions impact and CI performance** – tonnes of CO₂-e abated over the credit life.
- **Cost-effectiveness** – \$/tCO₂-e avoided.
- **Contribution to hard-to-abate sectors** – including shipping and aviation, particularly where there are limited alternatives.
- **Strategic fit** – support for Australia’s broader net zero trajectory, export competitiveness, and the development of green shipping corridors.
- **Regional and community benefits** – jobs and economic activity in port and coastal communities.
- **Project readiness and scalability** – ability to reach FID and deliver at scale within the program timeframe.

We recommend that explicit weight be given to supplying maritime uses and port precincts, ensuring the program’s benefits reach the shipping sector and associated supply chains.

Question 4.2: Community Benefit Principles

LCLF projects can contribute strongly to Community Benefit Principles under the Future Made in Australia Act, particularly:

- **Regional development and good jobs** – projects co-located with ports and maritime industries can create skilled employment and long-term economic activity in coastal and regional communities.
- **First Nations engagement and benefit-sharing** – many feedstock sources (biomass, land, renewable energy resources) intersect with First Nations interests and rights; properly structured projects can deliver shared benefits and co-design opportunities.
- **Energy security and resilience** – domestic production of LCLF strengthens fuel security for shipping and aviation, supporting supply chains to remote communities and export industries.
- **Environmental and climate benefits** – genuine emissions reductions, improved local air quality in port cities and protection of biodiversity when feedstocks are sourced sustainably.

These community benefits should be clearly articulated and scored in project assessment.

Question 4.3: Interaction with overseas policy developments

Shipping is a global industry that needs a global regulatory framework to ensure that patchwork regional frameworks do not penalise certain operations and that business has confidence and clarity to make future investment decisions. Noting this, the delay to IMO GHG regulation will mean that other regional regulation may lead to other schemes developing and influencing Australia’s settings. Overseas developments will strongly influence the investment case for Australian LCLF projects:

- **Demand-side mandates and targets** – IMO Net Zero Framework (delayed), Fuel EU Maritime, and similar schemes create predictable demand for low-carbon fuels for aviation and shipping.
- **International frameworks** – the IMO’s revised GHG strategy increase expectations that shipping will face progressive decarbonisation requirements, creating long-term demand for LCLF. Interaction with overseas developments should recognise the existing green corridors and be complimentary to policy to overseas end of the existing green corridor.

Australia's domestic settings must therefore be competitive and predictable if we wish to attract investment rather than see projects and jobs located offshore.

Question 4.4: Other measures critical for FID

Beyond production support, final investment decisions will depend on:

- **Long-term offtake frameworks** – including the ability of shipping companies, airlines, and cargo owners to enter long-term contracts with confidence in accounting and regulatory recognition of LCLF.
- **Stable and credible sectoral decarbonisation policies** – e.g., a clear national maritime decarbonisation strategy aligned with IMO and major trading partners.
- **Planning and permitting certainty** – streamlined approvals for LCLF plants and associated port infrastructure, with clear timelines.
- **Carbon accounting and certification frameworks** – ensuring LCLF use is recognised in emissions reporting, ESG metrics and potential carbon pricing schemes.
- **Infrastructure and enabling investments** – grid upgrades, port infrastructure, CO₂ transport and storage where applicable.

Question 4.5: Intersecting policies

Policies that will intersect with, and should be considered alongside, an LCLF production program include:

- **National maritime and aviation decarbonisation frameworks**, including any future fuel standards or emissions limits.
- **Bioenergy and waste strategies**, determining access to sustainable feedstocks.
- **Renewable energy and transmission planning**, affecting access to low-cost renewable electricity for e-fuels.
- **Fuel quality standards and safety regulations**, especially for marine fuels and bunkering.
- Any **carbon pricing or emissions trading mechanisms** that influence relative fuel costs.
- **Industrial policy** for ports and coastal regions, ensuring alignment of infrastructure planning and workforce development.
- **Sector or geographic specific market support measures**, such as the Tasmanian Freight Equalisation Scheme
- **Safeguard mechanism.**

Coherence across these policies is essential to avoid conflicting signals and reduce risk for investors and maritime users.

Question 4.6: Other feedback

The Australian maritime industry, through MIAL, emphasises three overarching points:

1. Closing the cost delta is paramount - the most important outcome for shipping is that the cost differential between conventional marine fuels and LCLF is reduced. Without this, shipping companies operating in globally competitive markets cannot adopt LCLF at scale, regardless of willingness or technical feasibility.
2. Shipping must be explicitly recognised as a priority hard-to-abate sector. Government policy should ensure that LCLF suitable for marine use is available and affordable, and that maritime

decarbonisation is considered alongside aviation in program design, prioritisation, and community benefit assessment.

3. A coherent package is needed - The production credit program should be part of a broader, integrated policy suite combining:
 - supply-side support (production credits, capex grants, concessional finance),
 - demand-side measures (sectoral trajectories, procurement levers, potential future standards for domestic ships) - these must be structured such that internationally trading vessels are not doubly penalized through regulation impost or fuel pricing premiums, and
 - enabling measures (standards, infrastructure, certification, skills).

With these design features, the program can catalyse bankable LCLF projects in Australia, support decarbonisation of shipping and aviation, and deliver enduring economic and community benefits in a Future Made in Australia.



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