MANILDRA GROUP
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18th December 2025

Australian Government
Department of Infrastructure, Transport,
Regional Development, Communications, Sport and the Arts
Email: lclfconsultation@infrastructure.gov.au

To whom it may concern,

Re: Submission – Cleaner Fuels Program: Policy Design and Engagement Paper

Manildra Group welcomes the opportunity to contribute to the Australian Government's Policy and Design and Engagement Paper for the Cleaner Fuels Program.

Manildra Group is Australia's largest producer of renewable fuel-grade ethanol, manufactured at our Shoalhaven Starches facility in Nowra from waste wheat starch residues that are not suitable for human consumption, within an integrated, zero-waste advanced manufacturing process that converts every grain of Australian wheat into food, feed, fuel and industrial products. Our renewable ethanol is certified under the Roundtable on Sustainable Biomaterials (RSB), and our wheat starch slurry (processing residues) is recognised under the International Civil Aviation Organization's (ICAO's) CORSIA framework as an approved feedstock for Sustainable Aviation Fuel (SAF).

Manildra Group is concerned that elements of the current policy debate implicitly assume Australia should defer, or bypass, the use of proven, first-generation low carbon liquid fuel (LCLF) technologies in favour of directly transitioning to second-generation or advanced pathways. In practice, this would mean underutilising existing domestic ethanol and biodiesel production capacity, infrastructure and skills that are already delivering verifiable emissions reductions and strengthening fuel security today. A more effective and lower-risk approach is to fully deploy and scale the ethanol and biodiesel technology Australia already has, using existing vehicles, infrastructure and regulatory frameworks, while simultaneously building the industrial, workforce and feedstock foundations required for second-generation pathways.

International experience shows that advanced fuels do not emerge in isolation. They are built on established first-generation industries that provide the sustainability certification systems, blending and logistics infrastructure, skilled workforce and investor confidence needed to de-risk next-stage technologies, including alcohol-to-jet. Prioritising advanced fuels without first consolidating a scaled first-generation industry risk delaying emissions reductions and increasing reliance on imported fuels. Using and expanding existing ethanol and biodiesel capacity now is not an alternative to advanced fuels; it is the most credible pathway to enabling them.

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Manildra Group urges the Australian Government to design the Cleaner Fuels Program as a genuinely fuel- and technology-agnostic scheme that fully includes biodiesel, renewable ethanol and ethanol-derived pathways as core LCLF options, and that explicitly positions sustainable first-generation fuels as the indispensable foundation for scaling second-generation and advanced LCLF technologies, including alcohol-to-jet, in Australia. Recognising and expanding these proven first-generation fuels is not a diversion from advanced pathways but a precondition for their success: they underpin the feedstock supply chains, certification systems, infrastructure and skilled workforce that will be required to de-risk and accelerate investment in next-generation technologies.

We commend the consultative process adopted in preparing this policy design and engagement paper and welcome the opportunity to provide our considered response. Should you have any questions or wish to discuss our submission further, please contact me at kirsty.beavon@manildra.com.au or on 0407 614 291.

Kind regards

Kirsty Beavon

Kirsty Beavon
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MANILDRA GROUP

QUESTION 1.1: WHICH LCLF SHOULD BE ELIGIBLE UNDER THE PROGRAM AND WHY?

Manildra Group submits that eligibility under the Program should be fuel and technology neutral, with access available to the full suite of low-carbon liquid fuels (LCLF) that can demonstrate substantial lifecycle emissions reductions relative to their relevant fossil-fuel equivalent baseline, strong sustainability performance, and a direct, material contribution to Australia's fuel security and sovereign capability.

On this basis, eligible LCLFs should include, at a minimum:

- Sustainable aviation fuel (SAF) for domestic and international aviation
- Renewable diesel and biodiesel for heavy road transport, agriculture, construction, mining and rail
- Ethanol for passenger and other light vehicles, including as a feedstock for alcohol-to-jet SAF pathways
- E-methanol and other renewable alcohols for marine, heavy transport and chemical uses

The common eligibility criteria should be that fuels:

- deliver material lifecycle emissions reductions against the relevant fossil-fuel equivalent baseline;
- are produced from sustainably sourced feedstocks and verified under internationally recognised sustainability and lifecycle certification frameworks (such as RSB, ISCC or equivalent), with clear treatment of waste, residue and by-product streams;
- strengthen Australia's sovereign fuel capability by diversifying liquid fuel supply, reducing reliance on imports and supporting domestic advanced manufacturing.

Within this fuel- and technology-agnostic framework, domestically produced renewable ethanol warrants explicit recognition:

- Manildra Group's sustainable ethanol is produced from waste wheat starch residues that are not suitable for food, within an integrated, zero-waste advanced manufacturing process that converts every grain of Australian wheat into food, feed, fuel and industrial products.
- Ethanol is immediately deployable within existing infrastructure through blends such as E10, which are already proven at scale globally and provide a lower-cost alternative to imported petroleum while strengthening fuel security and agricultural value-adding.
- Renewable ethanol is also a recognised SAF feedstock, enabling alcohol-to-jet pathways that can decarbonise aviation using established domestic production and skills, rather than relying solely on lipid-based routes.

A fuel and technology neutral eligibility approach that explicitly encompasses ethanol and alcohol-to-jet pathways, alongside SAF, renewable diesel, biodiesel and other eligible LCLFs, is essential to achieving the Program's objectives of accelerating decarbonisation in hard-to-electrify sectors, creating new regional jobs and strengthening Australia's sovereign liquid fuel capability.

QUESTION 1.2: SHOULD CERTAIN TYPES OF LCLF BE PRIORITISED OVER OTHERS?

A. SHOULD LCLF SUITABLE FOR PARTICULAR SECTORS OR USES BE PRIORITISED? FOR EXAMPLE, SHOULD SUSTAINABLE AVIATION FUEL BE PRIORITISED OVER RENEWABLE DIESEL?

As outlined in our response to Question 1.1, Manildra Group submits that, to be effective, the Program must support the full suite of eligible LCLFs, rather than narrowing support to a small number of pre-selected fuel types.

We support a fuel- and technology-agnostic program design, with prioritisation driven by policy objectives and project characteristics, rather than pre-emptively declaring a small number of "winner" fuels.

Manildra Group is seriously concerned that elements of the current policy debate assume Australia can bypass the development of a sustainable first-generation LCLF industry and move directly to so-called second-generation or advanced fuels. In practice, this would mean bypassing fuels that are already delivering verifiable emissions reductions in comparable markets and can be deployed rapidly using existing vehicles, infrastructure and regulatory frameworks.

Proven first-generation fuels such as renewable ethanol and biodiesel have demonstrated, internationally, the capacity to deliver substantial and measurable emissions reductions when deployed at scale, while simultaneously strengthening fuel security, supporting regional jobs and deepening agricultural value-adding. In Australia, however, this potential has not been realised, and in some cases has been actively undermined by weak and inconsistent policy settings, even though these LCLFs provide the industrial base, workforce capability, proven emissions reduction and logistics platform on which advanced, second-generation pathways, including alcohol-to-jet, will necessarily depend.

If Government nevertheless chooses to signal priority for particular classes of fuels within an overall fuel- and technology-agnostic framework, unequivocal priority should be accorded to first-generation LCLFs that are already operating at scale globally and demonstrably reducing emissions. Recognising and expanding these fuels is not a diversion from advanced technologies but a precondition for their success. They underpin the feedstock supply chains, sustainability certification systems, infrastructure and skills required to de-risk and accelerate the deployment of second-generation pathways. This approach is consistent with international practice. International jurisdictions that now

support advanced and second-generation fuels first secured investment in, built, sustained and scaled successful first-generation industries as the foundation for that transition. Departing from this sequence in Australia will slow decarbonisation, weaken fuel security, and forfeit opportunities for regional manufacturing and employment.

Within that neutral framework, it is reasonable for the Program to recognise that:

- some sectors, particularly aviation and certain segments of marine and long-haul heavy freight, have few credible decarbonisation alternatives in the medium term; and
- some pathways, currently sit at a cost and maturity disadvantage relative to other LCLFs.

However, this does not justify excluding or downgrading other fuels such as renewable ethanol, which:

- already delivers meaningful emissions reductions in the largest liquid fuel pool (petrol), and has substantial potential for further growth through existing production, blending and distribution infrastructure that is not currently being fully utilised;
- improves fuel security by displacing imported petrol with domestically produced renewable fuels; and
- provides a strategic feedstock for future alcohol-to-jet SAF production, leveraging existing integrated sites like Shoalhaven Starches.

In view of these considerations, a design that downgrades first-generation LCLFs, while prioritising only a narrow subset of advanced fuels would almost certainly delay, rather than accelerate, emissions reductions across the transport sector and weaken Australia's fuel security position. A more effective and resilient approach is to maximise overall LCLF supply and emissions reduction by retaining eligibility for all qualifying fuels, including renewable ethanol and biodiesel. Sectoral priorities can then be reflected through the calibration of production credits and merit weightings, rather than by excluding proven first-generation fuels from the Program.

B. SHOULD LCLF FOR CERTAIN SECTORS OR USES BE DE-PRIORITISED DUE TO OTHER VIABLE DECARBONISATION PATHWAYS?

Manildra Group does not support blanket de-prioritisation of particular sectors or uses solely because other decarbonisation options exist in theory.

Many sectors are expected to require a portfolio of solutions over coming decades – including electrification, hydrogen-based options and LCLFs – as technology, infrastructure and cost trajectories evolve.

Early de-prioritisation of liquid fuels risks:

- locking out scalable, near-term emissions reductions that can be delivered through existing infrastructure (for example, higher ethanol blends in road transport that are already proven and widely deployed internationally);
- undermining existing domestic investments in advanced manufacturing and logistics assets that are already supporting national fuel and food security by displacing imported petroleum products with domestically produced LCLFs; and
- increasing Australia's reliance on imported fossil fuels and LCLFs over time, and narrowing Australia's options in ways that will diverge from future international standards or market demand, including by moving in the opposite direction to comparable jurisdictions that have strengthened, rather than weakened, their first-generation LCLF mandates.

These risks are particularly acute in passenger vehicles and light commercial transport, where liquid fuels will continue to play a dominant role for many years and where the emissions task is substantial. Transport contributes around 22 per cent of Australia's national emissions, with passenger cars and light commercial vehicles generating approximately 60 per cent of transport emissions. Battery electric vehicles currently account for around 1 per cent of the passenger vehicle fleet, with hybrids around 3 per cent, and as at the first quarter of 2025 around 73 per cent of new car sales were still internal combustion engine vehicles. The average age of Australia's passenger and light commercial vehicles is approximately 11.2 years, meaning that liquid fuels will remain dominant across the fleet for at least the next decade.

In this context, deprioritising renewable ethanol within the Program is directly inconsistent with the core objective of achieving real, near-term emissions reductions. On a lifecycle analysis basis, ethanol typically delivers around 60 per cent lower greenhouse gas emissions than petrol and, under the National Greenhouse and Energy Reporting framework, Scope 1 greenhouse gas emissions from ethanol are approximately 97 per cent lower than petrol on a CO_2-e basis. Using existing liquid fuel infrastructure, if Australia's petrol pool (around 16 billion litres per year) were blended to E10, the result would be approximately 2.6 million tonnes of tailpipe Scope 1 emissions reductions annually.

Yet despite this potential, ethanol's share of Australia's petrol pool has fallen from approximately 1.78 per cent in 2010–11 to around 1.1 per cent in 2024–25, a decline of around 40 per cent in market share over 15 years, during a period of rising fuel demand and a fuel trade deficit that has increased from $6.6 billion in 2004–05 to $29.5 billion in 2024–25. This erosion directly reflects a sustained absence of credible, enforceable supply- and demand-side mechanisms and a stable policy framework for ethanol blending, notwithstanding clear and long-standing evidence of its emissions, fuel-security and regional economic benefits. The Program has a critical opportunity to help reverse this trend by treating renewable ethanol as a core part of the LCLF solution, rather than as a peripheral or transitional fuel.

For these reasons, sectors such as road transport should not be de-prioritised on the assumption that electrification or other alternatives will quickly displace liquid fuels. A more effective approach is to support all qualifying LCLFs, including renewable ethanol for the passenger fleet, alongside emerging technologies, so that emissions are reduced as quickly and cost-effectively as possible, while the vehicle fleet and infrastructure transition over time.

Instead of de-prioritising whole sectors, we recommend that eligibility remain sector-agnostic, with projects assessed on lifecycle emissions, sustainability, fuel security and community benefit.

Manildra Group submits that this is particularly important to ensure that renewable ethanol and alcohol-to-jet pathways are not sidelined on the assumption that road transport or aviation will be fully electrified or hydrogen-fuelled in the near term. Those transitions will take time; in the interim, scaling both first- and second-generation LCLFs across all relevant sectors, rather than excluding particular uses from support, is critical to meeting Australia's net zero goals.

Critically, a stable, scaled first-generation LCLF industry is the industrial and commercial foundation for second-generation pathways: it sustains the workforce, quality systems, feedstock and logistics networks, blending and distribution infrastructure, and investment certainty needed to commercialise advanced fuels (including alcohol-to-jet and other next-generation molecules). De-prioritising first-generation LCLFs now would delay, not accelerate, the emergence and commercialisation of second-generation options.

C. WHAT MARKET IMPACTS ARE ANTICIPATED BY INFLUENCING PRIORITISATION OF PARTICULAR FUEL TYPES?

Prioritisation choices will have significant market impacts over the ten-year life of the Program.

In our view, over-prioritising a narrow set of fuels (for example, predominately SAF and renewable diesel) risks:

- channelling limited feedstocks and capital into a small number of pathways;
- crowding out investment in other cost-effective and scalable LCLFs such as renewable ethanol and biodiesel; and
- slowing overall LCLF deployment if preferred pathways face supply constraints or higher technology risk.

These impacts would be amplified if biodiesel and renewable ethanol are treated as peripheral or excluded. In that case, the market impacts would include:

- existing domestic ethanol and biodiesel producers facing increased policy uncertainty and reduced bankability for expansion projects;
- Australia missing the opportunity to build SAF capacity by leveraging renewable ethanol production, and instead becoming more reliant on a narrower suite of HEFA-based technologies that are constrained by limited oilseed and waste-lipid feedstocks; and
- the petrol pool, currently the largest liquid fuel pool, decarbonising more slowly than necessary, despite proven infrastructure and consumer acceptance of ethanol blends.

In practical terms, this would mean Australia fails to capture cost-effective emissions reductions that could be achieved in the near term using existing plants, logistics and blending infrastructure, and delays the development of a broader advanced manufacturing base for LCLFs. Rather than building on Australia's established assets and capability, capital and expertise would be concentrated in a smaller set of pathways, weakening the case for ongoing reinvestment in domestic biorefineries and associated supply chains.

There is also a risk that valuable domestic feedstocks will be underutilised if program settings implicitly reserve them for a single use or fuel type. For example, if particular residue streams are effectively reserved for a single LCLF pathway, rather than being recognised as suitable inputs for multiple eligible fuels, Australia may fail to realise the full value of these resources. This would limit opportunities for growers and regional suppliers to participate in diversified LCLF markets and discourage investment in feedstock collection and processing infrastructure.

By contrast, a genuinely fuel-agnostic design that keeps all qualifying LCLFs, including biodiesel, ethanol and alcohol-to-jet, in scope and uses credit calibration or merit criteria to recognise sectoral priorities will:

- support a diverse project pipeline;
- reduce the risk of over-reliance on any single technology or feedstock; and
- better align with the Program's objectives to stimulate broad-based private investment, accelerate decarbonisation and improve sovereign liquid fuel capability.

QUESTION 2.1: SHOULD THE PRODUCTION CREDIT BE A FIXED AMOUNT PER LITRE OF PRODUCTION, OR A VARIABLE AMOUNT THAT DEPENDS ON THE MARKET PRICE OF LCLF?

Manildra Group submits that production support under the Program should be structured as a fixed production credit per litre of eligible LCLF produced in Australia, calibrated to the verified lifecycle emissions reduction achieved relative to the relevant fossil-fuel equivalent baseline. Anchoring support to abatement against the fossil baseline is the most objective, transparent and equitable way to allocate public funding across different fuels and pathways.

Using the fossil-fuel equivalent baseline as a common reference point ensures that projects are rewarded in proportion to the tonnes of CO_2-e avoided, regardless of molecule, feedstock or pathway. This approach aligns the Program directly with its decarbonisation objective, avoids arbitrary preferences between fuels, and allows Government to demonstrate that each dollar of production support is tied to measurable emissions reductions, rather than to movements in commodity prices. It also sends a clear, long-term signal to invest in emissions-reduction technologies and process improvements, because proponents can see that better lifecycle performance directly strengthens the business case for their projects.

A fixed, volumetric production credit linked to this abatement benchmark also provides the clearest basis for investment and financing decisions in a high-cost Australian context. It creates a predictable revenue stream per litre of eligible LCLF, directly related to the emissions performance of the project, and can be structured with appropriate indexation or tapering over time. By contrast, approaches that either link support to volatile market prices or apply a flat, undifferentiated payment per litre, regardless of emissions performance, focus only on volume or price and fail to recognise differences in emissions reduction against the fossil-fuel baseline. They also risk undermining both bankability and value for money.

A. ARE THERE ANY POTENTIAL BENEFITS, RISKS OR CONSTRAINTS CONSIDERING THE TWO DIFFERENT PRODUCTION CREDIT OPTIONS?

<u>Fixed production credit per litre (linked to relative fossil-fuel equivalent baseline abatement)</u>
Benefits

- Provides a predictable revenue stream per litre of eligible LCLF, anchored to verified lifecycle emissions reduction against the relevant fossil-fuel equivalent baseline.
- Supports investment certainty and bankability for capital-intensive projects in a high-cost Australian environment.
- Maintains a clear link between public support and carbon abatement, rather than short-term price movements.
- When combined with carbon-intensity thresholds or performance bands, provides proponents a strong incentive to continue improving the emissions profile of their fuels over time.
- Simple and familiar to understand and administer, consistent with established production-incentive models, and facilitates transparent tender processes and straightforward project finance modelling.

Risks / constraints

- If the rate is calibrated below the level needed to bridge the cost gap to the fossil-fuel alternative, proponents will be unable to reach FID and projects will not proceed.
- If the support level materially exceeds the demonstrated cost gap for particular pathways, there is a risk that some projects receive windfall margins relative to others, and that limited funding is concentrated in a small number of projects rather than a broader LCLF portfolio.

- Support levels will need to be carefully calibrated across different LCLF pathways and periodically reviewed, with differentiation that reflects pathway costs, feedstocks and technology maturity, and with pre-agreed indexation or tapering where appropriate, while preserving comparability on an abatement-per-tonne basis.

Variable, price-linked production credit (e.g. Contract for Difference)

Benefits

- In principle, a price-linked mechanism can moderate total budget outlays, because the level of support automatically tapers in periods when the chosen reference LCLF price index (domestic or international) is unusually high.
- It can adjust support over time in line with movements in LCLF prices and input costs, rather than relying solely on periodic resets of a fixed per-litre rate.

Risks / constraints

- Risks diluting the link between support and emissions reduction by focusing on market price movements rather than on abatement achieved relative to the fossil-fuel equivalent baseline.
- It is very difficult to identify a single, representative reference price across diverse LCLF pathways.
- Revenue volatility and potential pay-back obligations in higher-price periods materially weaken bankability and are unlikely to be acceptable to lenders.
- Increases complexity and transaction costs, rendering the Program more difficult to administer and less transparent for taxpayers.

B. WHAT OUTCOMES DO YOU THINK CAN BE DELIVERED WITH THE AVAILABLE FUNDING?

With finite program funding, a fixed per-litre production credit structured to reflect lifecycle emissions reductions relative to the relevant fossil-fuel equivalent baseline is the most effective way to deliver efficient and equitable outcomes. By benchmarking support to abatement against the fossil baseline, the Program can distribute assistance more equitably across different LCLF pathways, with projects rewarded in proportion to verified tonnes of CO_2-e reduced, relative to the fossil-fuel equivalent baseline, rather than fuel type or market position. This structure can unlock incremental expansions at existing brownfield sites – such as integrated biofuel sites – where additional volumes can be delivered at comparatively low abatement cost by building on established infrastructure, feedstock logistics and skilled workforces. It also creates the conditions for a diversified portfolio of LCLF projects, including renewable ethanol, biodiesel, alcohol-to-jet, SAF and renewable diesel, and supports the rapid deployment of proven technologies capable of delivering tangible domestic emissions reductions and fuel security benefits within the ten-year life of the Program.

By contrast, a more complex, price-linked or contract for difference style mechanism is likely to concentrate limited funding in a small number of large projects that are heavily exposed to international price risk, and to deliver fewer domestic litres and fewer tonnes of abatement for the

same budget. If support is not explicitly benchmarked to emissions reduction relative to the fossil-fuel equivalent baseline, projects with similar abatement outcomes may receive materially different levels of effective support due to price movements, rather than emissions performance.

For these reasons, Manildra Group submits that funding outcomes should be assessed and benchmarked on a carbon-abatement basis relative to the relevant fossil-fuel equivalent baseline. Support should then be delivered through a fixed, transparent volumetric production credit that maintains value for money and provides a high degree of investment certainty.

C. WHAT TYPE OF MECHANISM PROVIDES THE GREATEST INVESTMENT CERTAINTY OR LEVEL OF BANKABILITY TO PROJECTS?

From a project-finance perspective, the highest level of investment certainty is provided by a fixed, contractually defined production credit per litre of eligible LCLF, rather than a mechanism that varies with market prices. A fixed volumetric credit, underpinned by a clear funding agreement, allows proponents and financiers to model cashflows over the life of the Program with confidence, particularly where there is a published schedule for any indexation or tapering. Bankability is further strengthened where support is not subject to clawback or repayment if market prices fluctuate. This ensures that downside risk is confined to normal commercial exposures, rather than retrospective changes in policy settings.

By contrast, contract for difference style arrangements that reference domestic, or international LCLF price indices are significantly less attractive to lenders and equity investors. Exposure to downside revenue risk if reference prices fall, and the prospect of payments back to Government in higher-price periods, both introduce uncertainty and can undermine the stability of projected cashflows. For large, capital-intensive projects in a high-cost jurisdiction such as Australia, these features materially reduce the likelihood of reaching FID.

For Manildra Group and similar proponents, the most workable balance between bankability and value-for-money is achieved through a fixed per-litre production incentive that is explicitly calibrated to lifecycle emissions reduction relative to the fossil-fuel equivalent baseline and supported by a clear carbon-intensity eligibility threshold. This structure delivers stable, predictable revenue per litre of eligible LCLF for financing purposes, while maintaining the overall level of public support transparently tied to the tonnes of CO_2-e avoided, on a consistent abatement benchmark across different LCLF pathways.

D. HOW CAN THIS SUPPORT BE STRUCTURED TO PREVENT SUBSTANTIAL UPSIDE TO PRODUCERS?

Manildra Group submits that the most effective way to avoid undue upside to producers is to structure support around the verified cost and emissions gap relative to the fossil-fuel equivalent baseline, rather than simply rewarding throughput. In practice, this means setting per-litre support levels through a competitive process, informed by transparent evidence on the additional cost of producing LCLFs compared with the fossil baseline, and linking eligibility and payment levels to verified lifecycle carbon intensity. Producers delivering similar emissions reductions should receive broadly comparable effective support per tonne of CO_2-e reduced, so that public funding is aligned with decarbonisation outcomes rather than fuel type or market position. Additionally, proponents have a clear incentive to invest in continual improvement of lifecycle performance.

To further constrain windfall gains, the Program should incorporate both a maximum per-litre support rate and a negotiated total funding envelope per project. Per-litre credits could be tapered over time as projects de-risk, technology costs fall and markets deepen, rather than remaining at initial levels indefinitely. Finally, requiring proponents to provide appropriate transparency around cost of production and other revenue streams (including participation in certificate schemes or other incentives) would allow Government to demonstrate that the level of support is proportionate to genuine carbon abatement relative to the relevant fossil-fuel equivalent baseline. It would also help ensure that public funding is not delivering substantial, unearned windfall gains to individual producers.

E. HOW DO YOU CONSIDER PRICING FOR LCLF WILL BE SET OVER THE SHORT-MEDIUM TERM AND LONGER TERM? WILL PRICING BE MATCHED TO A PREMIUM ON EQUIVALENT FOSSIL FUEL OR PRICE OF IMPORTED LCLF OR BE ON A CARBON ABATEMENT BASIS?

In our assessment, over the short to medium term LCLFs are likely to trade at a premium to equivalent fossil fuels, reflecting higher production costs and the embedded value of emissions reduction. Prices will be influenced by blending economics against petrol, diesel and jet fuel and the value of emissions reductions to obligated entities under frameworks such as the Safeguard Mechanism, and the cost of imported LCLFs and competing biofuels. In this period, market pricing is likely to be expressed primarily as a premium over the fossil alternative, with an implicit carbon component rather than an explicit abatement price.

Over the longer term, as domestic and international carbon constraints tighten and corporations are required to report, manage and internalise their emissions-reduction costs, pricing is likely to move more explicitly towards a carbon-abatement basis – that is, the cost per tonne of CO_2-e reduced relative to the fossil-fuel equivalent baseline. In that environment, the market value of verified abatement embedded in LCLFs will become an increasingly important reference point, both for compliance buyers and for voluntary demand.

For the Cleaner Fuels Program, these dynamics strongly support a design where production support is calibrated with explicit reference to carbon abatement relative to the fossil-fuel equivalent baseline, but delivered as a fixed, transparent per-litre incentive rather than through a volatile contract for difference structure tied to uncertain future market prices. This approach aligns public support with long-term carbon-abatement objectives, while preserving the investment certainty and administrative simplicity required to bring Australian LCLF projects to FID.

QUESTION 2.2: TO DELIVER THE POLICY INTENT OF THE PROGRAM WHILE MAXIMISING THE VALUE FOR TAXPAYERS, DO YOU AGREE THAT PROJECTS WITH THE LOWEST COST SHOULD BE PRIORITISED UNDER THE PROGRAM, WITH THE COST BEING MEASURED EITHER AS PER UNIT OF LCLF PRODUCED OR AS PER UNIT OF CARBON EMISSIONS ABATED?

Manildra Group supports a strong value-for-money focus but does not support prioritising projects solely on the basis of a single "lowest cost" metric, whether expressed per unit of LCLF produced or per unit of emissions abated. Cost-effectiveness is critical, but it must be assessed alongside strategic outcomes. A lowest-cost-only approach would be too blunt and would risk channelling support towards a narrow set of options that appear cheaper on paper. It would also overlook projects that deliver significant strategic benefits for Australia or provide substantial abatement in sectors where costs are inherently higher. In doing so, it could prioritise short-term unit-cost outcomes over enduring national objectives, including sovereign capability, supply chain resilience and fuel security.

In our view, cost metrics should form one part of a broader merit assessment that also considers compatibility with existing vehicle fleets and fuel infrastructure, contribution to fuel security and reduction of the fuel trade deficit, regional employment and economic development, domestic value-adding and sovereign manufacturing capability, and the ability to deliver early, scalable emissions reductions relative to the relevant fossil-fuel equivalent baseline. Renewable ethanol and biodiesel, for example, can deliver substantial lifecycle emissions reductions using established vehicles, distribution systems and blending infrastructure, with minimal additional system cost. A balanced framework that weighs cost per litre and cost per tonne alongside these wider benefits will better reflect the public value created by LCLF projects and avoid mechanically favouring the lowest apparent unit cost at the expense of resilience, regional development and long-term national interest.

QUESTION 2.3: SHOULD THE PRODUCTION CREDIT BE LINKED TO THE QUANTUM OF LCLF PRODUCED, OR THE CARBON EMISSIONS SAVING POTENTIAL OF THE FUEL?

Manildra Group considers that, to deliver the policy intent of the Program, production credits should primarily reflect the emissions reduction achieved relative to the relevant fossil-fuel equivalent baseline, rather than volume alone. The central objective of the Program is to reduce lifecycle greenhouse gas emissions from liquid fuels; it is therefore appropriate that support is calibrated to the extent to which each eligible fuel decarbonises the underlying fossil fuel pool.

Jurisdictions such as California have embedded this principle by expressing fuel performance as a carbon-intensity value in grams of CO_2-e per megajoule and benchmarking all fuels, including gasoline and diesel substitutes, against a declining fossil baseline. These approaches ensure that support rewards genuine lifecycle emissions reductions, rather than simply total litres produced.

At the same time, investors require a framework that is predictable and practical. Manildra Group therefore supports a hybrid design in which:

1. eligibility is conditional on meeting a minimum lifecycle carbon-intensity reduction relative to THE fossil-fuel equivalent baseline (for example, a threshold aligned with existing international schemes such as RSB, ISCC and CORSIA); and
2. production credits are calculated on a volumetric basis but scaled in simple bands according to the percentage reduction achieved against that fossil baseline.

Under such a structure, fuels that achieve deeper emissions reductions receive a higher effective level of support per litre, but project proponents can still model revenue using transparent, banded rates rather than complex, continuously varying formulas.

Manildra Group considers that linking production incentives to decarbonisation relative to the relevant fossil-fuel equivalent baseline is the fairest and most equitable approach. It ensures that fuels like renewable ethanol – particularly when produced from waste wheat-starch residues under robust sustainability certification – are rewarded for the real, measurable reductions they deliver in the petrol pool, while still allowing emerging pathways to compete on a level playing field by demonstrating superior lifecycle performance.

QUESTION 2.4: WHAT ARE YOUR VIEWS ON THE COST TO DEPLOY LCLF DOMESTICALLY COMPARED TO INTERNATIONALLY? IS THERE A LOCAL PREMIUM FOR DOMESTIC PRODUCTION?

Manildra Group submits that there is a clear "Australia premium" for large-scale manufacturing generally, and for LCLF projects in particular. Australia is a high-cost operating environment, with higher labour, construction and financing costs than many competing jurisdictions. For energy-intensive manufacturing, this premium is further amplified by structurally high and volatile energy prices.

In practice, this premium is most evident in energy costs, particularly natural gas. Despite Australia's substantial natural gas reserves, manufacturers on the east coast routinely face delivered natural gas prices more than three times those paid by U.S. industrial users, with contract offers still sitting well above $12/GJ. Electricity prices and network charges have also risen significantly over the past decade, compounding the burden on energy-intensive industry. Together, these settings impose a structural competitiveness penalty on domestic production, meaning Australian LCLF projects must

absorb materially higher deployment and operating costs than comparable projects in lower-cost jurisdictions.

Notwithstanding this premium, domestic LCLF production delivers significant public value that cannot be replicated by importing fuels produced offshore. Australian projects enhance fuel security and resilience by reducing exposure to international supply disruptions and volatile import prices; support regional jobs and advanced manufacturing capability; strengthen whole-of-crop value-adding and circular economy outcomes; and reduce Australia's growing fuel trade deficit.

Manildra Group submits that the Program should explicitly acknowledge both the higher underlying cost base and these broader public benefits. This supports a design in which production credit levels are calibrated to reflect genuine cost differentials relative to international benchmarks, and in which merit assessment explicitly values co-benefits such as fuel security, regional employment and domestic value-adding, rather than focusing solely on headline cost per litre or cost per tonne of emissions reduced.

QUESTION 2.5: SHOULD THE TOTAL VALUE OF PRODUCTION CREDITS BE CAPPED FOR EACH PROJECT? IF YES, WHAT SHOULD THE CAPPED AMOUNT BE AND WHY?

Manildra Group recognises the need for fiscal responsibility and for government to manage overall program exposure. However, we do not support the application of a rigid, one-size-fits-all cap on the total value of production credits per project. Large, integrated LCLF facilities and multi-stage decarbonisation pathways typically require substantial upfront capital, are exposed to significant project and market risk, and have long payback periods. A hard dollar cap applied uniformly across projects would risk constraining scalability, discouraging staged expansions and limiting the extent of emissions reductions that can be achieved at sites with the greatest abatement potential.

If Government determines that some form of cap is necessary, we submit that it should be structured in a way that is flexible and linked to outcomes, rather than a fixed nominal ceiling. In practice, this could include project-specific credit envelopes informed by levelised cost of production, expected production volumes, quantified lifecycle emissions reductions and the extent of private co-investment (including Clean Energy Finance Corporation, the National Reconstruction Fund, the Net Zero Fund, Australian Renewable Energy Agency and relevant State schemes). Within such envelopes, proponents that demonstrate additional, verifiable decarbonisation – for example through subsequent project phases or integration of renewable energy, heat recovery and renewable gas – should be able to access incremental support, so that projects are rewarded for deeper emissions reductions rather than penalised for ambition. This approach would balance fiscal discipline with the need to encourage large, scalable investments, capable of delivering meaningful long-term abatement.

QUESTION 2.6: SHOULD PRODUCTION BE FOCUSED ON DOMESTIC SUPPLY ONLY OR SHOULD EXPORT ALSO BE PERMITTED? WHAT IMPACT COULD RESTRICTION HAVE FOR PROJECTS OR THE MARKET?

Manildra Group considers it essential that production supported under the Cleaner Fuels Program can serve both domestic and export markets. For many LCLFs, particularly advanced pathways, early large-scale offtake opportunities are likely to be driven by international demand, including overseas mandates and corporate decarbonisation commitments. Restricting production to domestic supply only would materially increase project risk, weaken bankability and constrain proponents' ability to secure long-term offtake contracts at the scale required to justify major capital investment. In practical terms, an Australia-only constraint would limit access to global premium markets, reduce scale, and significantly weaken the competitive position of Australian proponents, relative to established overseas producers.

At the same time, Australia should avoid repeating the experience of the east coast gas market, where export capacity expanded ahead of enforceable domestic safeguards, leaving local industry exposed to tight supply, extreme price volatility and export-parity pricing. The result has been a structural competitiveness penalty for local manufacturers, despite Australia's abundant natural gas resources, with many now paying more than three times U.S. industrial benchmark prices and operating under persistent uncertainty that undermines competitiveness, investment and jobs. The east coast gas market demonstrates the consequences of permitting large-scale exports without robust domestic reservation and protection for energy-intensive industries and households.

The design of the Cleaner Fuels Program should therefore explicitly incorporate safeguards to ensure that export eligibility does not come at the expense of domestic fuel security or access to competitively priced LCLFs.

In our view, the appropriate balance is to permit and indeed enable export, while requiring proponents to demonstrate clear domestic benefits. This could include, for example, a credible domestic market pathway as local mandates and standards mature, minimum volumes or shares of production made available to domestic buyers on reasonable terms, or contractual arrangements that allow a portion of output to be redirected to the domestic market, if required, for fuel security.

Such an approach would maintain export flexibility, support bankability and scale, and enable Australian producers to respond to strong international demand, while safeguarding domestic users from export-driven price and supply pressures of the kind experienced in the east coast gas market. Allowing a similar pattern to emerge in liquid fuels would seriously compromise Australia's industrial base and fuel security. Policy settings for LCLF must therefore provide robust protection for domestic energy and fuel security, ensuring reliable, competitively priced supply for Australian industry and consumers, and a stable environment for ongoing investment in decarbonisation.

QUESTION 2.7: IS THERE A ROLE FOR COMBINED PRODUCTION SUPPORT WITH CAPITAL GRANTS FOR FIRST-OF-A-KIND FACILITIES?

Manildra Group strongly supports a blended support model that combines upfront capital assistance with ongoing production incentives for first-of-a-kind and early-mover LCLF facilities. Large, integrated sites typically require significant new capital to install additional processing, storage, loading and export infrastructure, even where much of the underlying plant, workforce, feedstock supply and logistics are already in place. Capital grants and concessional finance are needed to de-risk construction and enable projects to reach FID, while production support is needed to bridge the ongoing cost gap between LCLFs and their fossil fuel comparators.

This combined approach is especially efficient at brownfield sites, where incremental investments can deliver substantial additional emissions reductions, for comparatively lower cost. By building on existing assets, approvals and supply chains, brownfield projects can achieve more abatement per dollar of public support than many greenfield developments, because a greater share of total project cost is directed to decarbonisation outcomes rather than to establishing entirely new facilities. A framework that allows coordinated capital grants and production credits for such projects will therefore maximise the emissions reduction return from each dollar invested, while supporting the scale-up of domestic renewable fuel production in line with Australia's net zero, fuel security and sovereign manufacturing objectives.

QUESTION 2.8: WHAT OTHER TYPES OF FUNDING OR CONCESSIONAL FINANCE COULD SUPPORT LCLF PROJECTS (E.G. FUNDING FROM CEFC AND NRF)?

Manildra Group considers it essential that the Cleaner Fuels Program is designed to operate in a complementary – rather than duplicative or competing – manner with existing Commonwealth and State funding mechanisms. Large-scale LCLF projects, particularly integrated, trade-exposed sites such as Shoalhaven Starches, typically require a mix of upfront capital support, concessional finance and ongoing production incentives to reach FID.

We therefore recommend that the Program explicitly provide for coordinated co-funding with funding bodies and programs such as the Clean Energy Finance Corporation, the National Reconstruction Fund, the Net Zero Fund, the Australian Renewable Energy Agency, and relevant State schemes, where proponents can demonstrate clear additionality and alignment with lifecycle emissions, sustainability and community-benefit objectives.

In our view, funding frameworks should be structured so that concessional loans, equity, grants and production credits can be "stacked" in a transparent way to de-risk capital-intensive investments, rather than forcing projects to choose between programs or face punitive clawbacks. Clear rules on complementarity, co-contribution and information-sharing between agencies will ensure public

funds are leveraged efficiently, avoid duplication and double-counting, and support the timely deployment of domestically produced LCLFs at the scale required to meet Australia's net zero, fuel security and sovereign manufacturing goals.

QUESTION 2.9: IS ANY OTHER SUPPORT REQUIRED ACROSS THE SUPPLY CHAIN TO ENABLE DOMESTIC PRODUCTION OF LCLF?

Manildra Group submits that targeted support across the supply chain will be essential to unlock the full potential of domestic LCLF production. Production incentives at the plant gate alone will not be sufficient; they must be complemented by investment in the logistics, storage and blending systems that move feedstocks and finished LCLFs from regional manufacturing sites to end-users in road transport, aviation and other sectors.

In relation to feedstocks, there is a clear need for support for efficient logistics and storage – including feedstock and by-product handling, covered storage and regional aggregation points – so that waste and residue streams can be collected and delivered reliably to integrated biorefineries. For finished products, additional support is required for blending, storage and distribution infrastructure. This includes terminals, tanks, piping, gantries and load-out facilities capable of handling higher LCLF blends. This should additionally extend to rail and port infrastructure that links regional production sites to domestic fuel markets and export hubs, recognising existing and planned investments in rolling stock, containerised exports and port terminals that can underpin a broader LCLF supply chain.

Finally, the Program should recognise the importance of sustainability certification, lifecycle assessment and traceability across the supply chain. Support for alignment with recognised schemes such as the Roundtable on Sustainable Biomaterials (RSB) and the International Sustainability and Carbon Certification scheme (ISCC) – both recognised under ICAO's CORSIA framework – together with Australia's emerging Guarantee of Origin framework for LCLFs, will help Australian producers demonstrate robust lifecycle performance to domestic customers and export markets.

By addressing these supply chain enablers alongside plant-level production incentives, the Program can ensure that domestic LCLF projects are able to deliver product to market at scale and compete effectively in both domestic and international markets.

QUESTION 2.10: WHAT LESSONS CAN AUSTRALIA LEARN FROM OTHER JURISDICTIONS THAT HAVE ALREADY IMPLEMENTED LCLF PRODUCTION SUPPORT MEASURES?

Manildra Group submits that overseas experience shows the importance of stable, long-term policy settings, robust demand-side mandates and standards, fuel- and technology-neutral design grounded in clear lifecycle carbon-intensity rules, and reliance on internationally recognised certification frameworks.

Firstly, international schemes that have successfully scaled LCLFs are characterised by long-term, enforceable policy settings. Production incentives are embedded in stable frameworks that have been maintained and strengthened over decades, providing investors with confidence that capital-intensive projects can recover their costs over the life of the asset. In many jurisdictions, first-generation LCLFs such as ethanol and biodiesel were initially supported through modest blending mandates and then progressively increased as supply chains, infrastructure and consumer confidence matured, moving from lower to higher blend rates.

International renewable fuel standards and blending mandates for road transport, together with SAF mandates for aviation, now provide clear, enforceable demand signals. As a result, first-generation LCLFs have become a mainstream component of the fuel mix, with more than 60 countries operating ethanol and biodiesel blending mandates available across the Americas, Europe and Asia. By contrast, Australia is increasingly an outlier among comparable jurisdictions, with no national first-generation LCLF blending mandate and only limited, uneven and unenforced state-based schemes, despite the proven role of mandates in scaling ethanol and biodiesel industries overseas. These examples demonstrate that production support is most effective when embedded in strong, robust policy frameworks and paired with clear, enforceable demand-side measures that provide long-term volume certainty.

Secondly, leading jurisdictions have adopted fuel- and technology-neutral program designs that focus on verified lifecycle emissions performance rather than pre-selecting a narrow set of “winner” molecules. In practice, this means establishing transparent, science-based carbon-intensity rules and allowing all compliant fuels and pathways, including biodiesel, renewable ethanol and alcohol-to-jet, to compete on a level footing. This approach encourages innovation, reduces the risk of over-reliance on a single feedstock or technology, and recognises the role of both first-generation and advanced fuels in meeting net zero objectives. For Australia, a fuel- and technology-neutral design is particularly important to ensure that domestically produced renewable ethanol, already delivering substantial lifecycle emissions reductions and recognised internationally as a SAF feedstock, is not inadvertently sidelined.

Thirdly, overseas experience underscores the value of aligning domestic schemes with internationally recognised sustainability and certification frameworks. Programs that anchor eligibility and crediting to established schemes such as RSB, ISCC and CORSIA avoid duplicating compliance burdens, facilitate access to premium export markets and provide assurance to governments, investors and customers that fuels meet robust environmental and social standards. Manildra Group's ethanol is already certified under the Roundtable on Sustainable Biomaterials (RSB), and our feedstock (wheat starch slurry (processing residues)) is recognised by the International Civil Aviation Organization (ICAO) as an approved SAF feedstock, demonstrating the practicality of this approach and the opportunity for Australia to build on existing global frameworks rather than creating bespoke systems.

Finally, international experience highlights the risks of weak or inconsistent policy. Jurisdictions that have not coupled production support with credible mandates, or that have relied on short-term, fragmented schemes, have struggled to attract and retain investment, with capital flowing instead to markets offering more predictable, long-duration policy settings.

For Australia, this experience underscores the need to design the Cleaner Fuels Program as part of a coherent, fuel- and technology-neutral policy architecture. That framework should combine long-duration production support, national-level blending mandates, robust carbon-intensity rules and internationally aligned certification, so that first- and second-generation LCLFs can be scaled at the pace required to meet national emissions, fuel security and sovereign manufacturing objectives.

QUESTION 3.1: CONSIDERING THIS OBJECTIVE, WHAT PRODUCTION PATHWAYS SHOULD BE FOCUSED ON OR PRIORITISED?

Manildra Group supports a technology-neutral approach to production pathways. The Program should not pre-select a small number of technologies but instead support any pathway that can demonstrate robust lifecycle emissions performance, sustainability, fuel security benefits and bankable project fundamentals.

Within this framework, ethanol-based pathways are particularly well suited to Australia's existing industrial base and feedstock profile. They leverage existing integrated production assets and skilled workforces at brownfield sites, utilise by-product streams (such as processing residues) rather than dedicated food crops, and embed circular economy principles and whole-of-crop value-adding. These pathways can generally be scaled earlier and with lower technology and execution risk than greenfield projects reliant on new plants and constrained feedstocks, while also providing the platform on which second-generation technologies, including alcohol-to-jet, can be developed.

A. SHOULD PRIORITY BE GIVEN TO PROJECTS THAT USE MORE-ESTABLISHED PRODUCTION PATHWAYS (E.G. HEFA AND HVO) THAN NASCENT PRODUCTION PATHWAYS THAT MAY PRESENT A HIGHER LEVEL OF TECHNOLOGY RISK?

It is reasonable for the Program to consider technology risk in its assessment, but priority should not be conferred by default on particular pathways such as HEFA or HVO solely because they are more established. A narrow focus on these pathways would exclude commercially proven alternatives and risk over-reliance on technologies that are constrained by limited and contested feedstocks.

In our view, the assessment of "priority" should consider the full risk and opportunity profile, including feedstock availability and sustainability, scalability, integration with existing industrial sites and the ability to deliver early, material emissions reductions. On that basis, renewable ethanol pathways, including alcohol-to-jet, should be considered alongside HEFA/HVO as priority candidates, rather than being treated as inherently higher risk simply because they are less mature in some markets.

B. HOW CAN NASCENT PRODUCTION PATHWAYS COMPETE WITH MORE-ESTABLISHED PRODUCTION PATHWAYS (E.G. HEFA AND HVO)?

Nascent production pathways can compete effectively where the Program recognises their ability to build on existing assets, capitalise on lower-cost and more readily available domestic feedstocks, and deliver strong sustainability outcomes. Alcohol-to-jet pathways are a clear example for Australia: they can draw on established renewable ethanol production, using by-product and residue streams that are already collected and processed at integrated brownfield sites, rather than relying on new greenfield plants and constrained lipid feedstocks that are exposed to international competition.

To facilitate fair and equitable competition, the Program should allow emerging pathways to access production support on the same basis as established technologies, subject to credible management of technology risk and robust, independently verifiable sustainability credentials. This includes recognition of the value of projects that extend or repurpose existing facilities, and enhance utilisation of domestic feedstocks and existing storage, blending and logistics infrastructure, rather than focusing only on technologies that are already dominant internationally.

C. WHAT MINIMUM STAGE OF PROJECT DEVELOPMENT (AND EVIDENCE) SHOULD BE EXPECTED BY PROJECTS UNDER THE PROGRAM?

Manildra Group considers that projects should be at least at front-end engineering and design (FEED) stage, or equivalent, to be eligible for support under the Program. At a minimum, proponents should be able to demonstrate a confirmed site, completion of preliminary engineering and design, a credible capital-raising strategy and a clear pathway to securing offtake agreements.

This approach ensures that support is directed to genuinely advanced projects that are capable of reaching final investment decision (FID) within a reasonable timeframe, while not restricting eligibility only to projects that have already reached FID. It also accommodates brownfield expansions at existing integrated manufacturing sites, where substantial preparatory work may already have been undertaken and where incremental capacity can be delivered more quickly, and with lower execution risk.

QUESTION 3.2: SHOULD THERE BE A MINIMUM FACILITY SIZE TO BE ELIGIBLE?

Manildra Group does not support the use of rigid minimum facility size thresholds, expressed in generic megalitre or megawatt terms, as an eligibility test for the Program. Different technologies, feedstocks and project configurations achieve "commercial scale" at very different sizes. A single volumetric threshold would risk excluding pathways and regions that are well suited to smaller but still material projects.

A one-size-fits-all threshold could also disadvantage brownfield expansions at existing integrated sites, where the additional nameplate capacity may appear modest but is delivered on top of a large existing base and therefore translates into substantial additional LCLF volumes, emissions reductions and fuel security benefits.

Rather than prescribing a fixed minimum capacity, we submit that projects should be considered commercial-scale and eligible where proponents can demonstrate both a material contribution to the relevant fuel pool, and economies of scale appropriate to the specific pathway. For example, this may include facilities that can supply a meaningful share of SAF demand across a relevant aviation network or corridor, or that deliver a significant share of the domestic petrol pool through renewable ethanol, even where absolute volumes differ between technologies. This approach would enable the Program to focus on genuine commercial projects and avoid funding small pilots, while retaining the flexibility needed to accommodate diverse technologies, feedstocks and regional circumstances.

QUESTION 3.3: SHOULD LCLF BE REQUIRED TO MEET A CARBON INTENSITY THRESHOLD (% CARBON INTENSITY REDUCTION COMPARED TO FOSSIL EQUIVALENT) TO BE ELIGIBLE FOR THE PROGRAM? IF YES, WHAT WOULD BE A REASONABLE THRESHOLD, AND HOW SHOULD THAT THRESHOLD BE CALCULATED AND VERIFIED? IF NOT, WHY NOT?

Manildra Group supports the use of a clear, robust carbon-intensity threshold – expressed as a percentage reduction against the relevant fossil-fuel equivalent baseline, as an eligibility requirement under the Program.

At Shoalhaven Starches, Manildra Group is Australia's largest producer of renewable ethanol, manufactured from waste wheat starch streams that are not suitable for human consumption, demonstrating whole-of-crop utilisation, zero waste and sustainable circularity. Our ethanol distillery

has been sustainably certified by the Roundtable on Sustainable Biomaterials (RSB) since 2012 (Participant Code 00001), and complies with RSB's 12 Principles and Criteria, including stringent lifecycle greenhouse gas safeguards. Our feedstock for ethanol production, wheat starch slurry (processing residues), is recognised under the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) as an approved SAF feedstock.

Lifecycle assessments undertaken for renewable ethanol consistently show substantial emissions reductions relative to fossil petrol, with typical GHG savings in the order of 50-70 per cent compared with the fossil-fuel equivalent baseline, depending on feedstock, plant configuration and system boundaries.

We therefore submit that eligibility thresholds should align with established international sustainability frameworks, rather than create a new bespoke Australian methodology. RSB and comparable European schemes commonly require a minimum lifecycle GHG reduction versus the fossil-fuel comparator, with higher thresholds applying for newer installations (typically 50%, 60% and 65% depending on start date).

In our view, a reasonable approach for the Cleaner Fuels Program would be to require, for eligibility, at least a 50 per cent reduction in lifecycle carbon intensity relative to the relevant fossil-fuel equivalent baseline (petrol, diesel or jet kerosene), with a clear trajectory to tighten this to 60–65 per cent for new projects over the life of the Program. Carbon intensity should be calculated on a full lifecycle (well-to-wheel) basis, using methodologies that are demonstrably compatible with internationally recognised and established schemes such as RSB, ISCC and CORSIA.

A. IF THE PRODUCTION INCENTIVE IS BASED ON CARBON EMISSIONS REDUCED, RATHER THAN VOLUME OF LCLF PRODUCED (SEE QUESTION 2.3), IS A MINIMUM CARBON INTENSITY THRESHOLD STILL NEEDED AS PART OF THE ELIGIBILITY CRITERIA?

Manildra Group submits that even if incentives are calculated on the basis of tonnes of CO_2-e reduced, a minimum carbon-intensity threshold remains important to ensure that all supported fuels deliver a meaningful reduction against the relevant fossil-fuel equivalent baseline. Without such a floor, there is a risk that fuels delivering only marginal improvements could still attract support, dilute the environmental integrity of the Program, and weaken public confidence in outcomes. We therefore recommend retaining a minimum eligibility threshold broadly aligned with established international practice (including RSB, ISCC and CORSIA), with production credits then scaled according to verified lifecycle emissions reductions above that threshold.

B. SHOULD INDIRECT LAND USE CHANGE BE INCLUDED IN THE METHOD FOR DETERMINING CARBON INTENSITY, FOR THE PURPOSE OF THE PROGRAM?

Manildra Group recognises that credible treatment of indirect land-use change (ILUC) is important for environmental integrity and social licence. We note that leading international frameworks such as the Roundtable on Sustainable Biomaterials (RSB) and the International Sustainability and Carbon Certification (ISCC) scheme incorporate safeguards to manage ILUC-related risks. We support including ILUC within the carbon-intensity methodology where robust, evidence-based approaches are available and can be applied transparently and consistently, in a manner that is aligned with internationally recognised certification and carbon accounting frameworks.

However, the Program must avoid applying generic or blunt ILUC factors in a way that inadvertently penalises by-product and residue-based pathways. In particular, pathways that utilise waste and residue streams – such as Manildra Group's use of waste wheat starch streams (processing residue) not suitable for food production – should not be treated as if they involve the same land-use displacement risks as dedicated crop-based pathways.

Accordingly, ILUC treatment should align with established international practice (including RSB and ISCC) and be applied in a way that reflects Australian agronomic conditions and recognises demonstrable safeguards for food security and land-use displacement.

A methodology that departs from these internationally recognised approaches would undermine the comparability and credibility of Australian carbon-intensity claims, and could compromise the integrity of export-facing sustainability credentials relied upon by international buyers and regulators. In practice, such misalignment would create avoidable barriers to market access and investment confidence in export supply chains.

C. SHOULD ANY FEEDSTOCKS BE PRIORITISED OR OTHERWISE CONSIDERED OUT OF SCOPE?

We support prioritisation of waste and residue streams, genuine by-products and appropriate rotation crops that verifiably avoid competition with food production, reduce waste and support circular-economy outcomes. Manildra Group's renewable ethanol is produced from waste wheat starch residues within an integrated, zero-waste advanced manufacturing process, converting a non-food by-product stream into a strategic LCLF without diminishing the volume of wheat directed into food, feed, and industrial products.

At the same time, we caution against blanket exclusion of all crop-based feedstocks. Where feedstocks meet strong sustainability criteria – including ILUC safeguards, water and biodiversity protections, and food-security safeguards – they should remain eligible. An overly prescriptive list of

"in" and "out" feedstocks risk unintended consequences for Australian growers, processors and communities, and may discourage investment in improved agronomic practices.

QUESTION 3.4: OTHER THAN CARBON INTENSITY, SHOULD ANY OTHER SUSTAINABILITY CRITERIA BE INCLUDED?

Other than carbon intensity, Manildra Group supports the inclusion of broader sustainability criteria, provided these align with existing international frameworks, rather than attempt to reinvent them. The Roundtable on Sustainable Biomaterials (RSB) and the International Sustainability and Carbon Certification (ISCC) scheme already require comprehensive safeguards across water, soil, biodiversity, labour, human rights and local food security, and are recognised within schemes such as the International Civil Aviation Organization's (ICAO's) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

We submit that the Program should reference these criteria and require proponents to demonstrate compliance through recognised global schemes, instead of creating a parallel set of Australian rules that could fragment markets and increase costs without improving outcomes.

In practice, this means explicitly recognising water-efficiency and water-stewardship outcomes; waste minimisation and nutrient recycling; biodiversity and land-use safeguards; food-security assurances; and social criteria such as labour standards, health and safety, and community engagement.

At Shoalhaven Starches, our advanced water treatment plant treats more than 10 million litres of production wastewater each day to Australian Drinking Water Guideline standards, with around 7 million litres reused on site in production processes. The remaining treated water is applied to a 1,000-hectare environmental farm, where organic waste streams are converted into biofertiliser, closing the loop on nutrients and reducing reliance on synthetic fertilisers. These kinds of circular practices, alongside significant investments in cogeneration, heat recovery and rail freight to reduce emissions and protect shared environmental resources, should be recognised as part of a holistic sustainability assessment for LCLF projects.

QUESTION 3.5: WHICH INTERNATIONAL AND DOMESTIC SUSTAINABILITY SCHEMES SHOULD BE ALLOWED TO VERIFY SUSTAINABILITY CLAIMS?

Manildra Group submits that the Program should explicitly recognise, at a minimum, the Roundtable on Sustainable Biomaterials (RSB), the International Sustainability and Carbon Certification (ISCC) scheme and the International Civil Aviation Organization's (ICAO's) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) sustainability framework as eligible sustainability certification frameworks. These schemes are widely used internationally and are recognised under regimes such as the EU Renewable Energy Directive.

RSB and ISCC in particular are already embedded in Australian policy settings and state biofuel regulations, and our Shoalhaven Starches ethanol distillery has maintained continuous RSB certification since 2012.

We also support alignment with the Commonwealth's Guarantee of Origin (GO) scheme as it expands to cover LCLFs, as this will be critical in enabling producers to substantiate eligibility for production support using recognised, auditable certification and lifecycle emissions data. The GO certification methodology should be aligned with emissions accounting and sustainability calculations already accepted under RSB, ISCC and ICAO CORSIA, to avoid duplication and prevent divergence from globally recognised certification standards.

Allowing projects to demonstrate sustainability through these established schemes will reduce duplication, lower transaction costs, and provide investors and customers, domestic and international, with confidence that Australian LCLFs meet globally recognised best-practice standards.

QUESTION 4.1: WHAT ARE YOUR VIEWS ON THE AFOREMENTIONED FACTORS AFFECTING THE MERIT OF A PROPOSAL?

Manildra Group broadly supports the proposed merit factors, including emissions reduction, economic benefit, fuel security, sustainability, and efficient market outcomes. In our view, these factors form a credible framework for assessing the merit of LCLF proposals, provided they are applied holistically rather than as rigid pass/fail thresholds, and are used to assess each project's overall contribution to national objectives.

Within this framework, we consider it particularly important that the merit assessment explicitly recognises whole-of-crop utilisation, waste reduction and domestic value-adding as central to both sustainability and fuel security outcomes. At integrated advanced manufacturing sites such as Shoalhaven Starches, every grain of Australian wheat is converted into a range of value-added food, feed, fuel, industrial and renewable products, with by-products and residues repurposed through zero-waste circular manufacturing processes. This model reduces waste, strengthens food and fuel security, underpins sovereign supply-chain capability, and supports skilled regional jobs, communities and long-term investment in domestic advanced manufacturing.

We submit that the merit criteria should explicitly capture sovereign manufacturing and value-adding, whole-of-crop utilisation and circular-economy outcomes under the headings of "sustainability", "economic benefit" and "fuel security". Explicitly recognising these attributes within the assessment framework will ensure that projects delivering deep, enduring benefits to Australia's food, fuel and energy security receive appropriate weight under the Program.

QUESTION 4.2: RECIPIENTS UNDER THE PROGRAM WILL NEED TO DELIVER BENEFITS ACCORDING TO THE COMMUNITY BENEFIT PRINCIPLES UNDER THE FUTURE MADE IN AUSTRALIA ACT (SEE APPENDIX D). HOW DO YOU CONSIDER THE COMMUNITY BENEFIT PRINCIPLES IN RELATION TO LCLF PROJECTS? ARE THERE SPECIFIC COMMUNITY BENEFIT PRINCIPLES THAT ARE MORE OR LESS RELEVANT?

Manildra Group supports the Community Benefit Principles under the *Future Made in Australia Act* as a credible framework for LCLF projects. When properly implemented, these principles help to ensure that public support for LCLF investment delivers broad, enduring benefits for Australian workers, regions and communities, alongside emissions reduction and fuel security outcomes.

LCLF projects, particularly those integrated with existing advanced manufacturing facilities, are well positioned to support safe, secure and well-paid regional jobs. Manildra Group directly employs more than 1,500 people nationally, the majority in regional New South Wales, and supports thousands more indirect jobs across transport, logistics, agriculture, construction, engineering, packaging and related sectors. Long-term investment in LCLF production underpins this employment base, provides stable markets for more than 2,000 farming families, and sustains communities located around the sites where we operate and beyond. Principles relating to skills, inclusion and workforce development are equally important: advanced biorefining, circular manufacturing and rail and port logistics require specialised skills and provide apprenticeships, upskilling opportunities and long-term career pathways in regional areas.

Community engagement and regional development are integral to LCLF projects. Advanced manufacturing sites such as Shoalhaven Starches are deeply embedded in the communities in which we operate and beyond, contributing through direct employment and procurement, as well as sustained support for local initiatives in education, health, environmental stewardship and community wellbeing. It is therefore appropriate that the Community Benefit Principles require proponents to demonstrate genuine, long-term engagement with these communities, including transparent communication, responsiveness to local concerns and tangible support for locally identified priorities.

LCLF projects are central to building and maintaining Australia's domestic industrial capability and supply chains. Integrated food-feed-fuel manufacturing, whole-of-crop utilisation and the development of renewable co-products such as biogenic CO_2, biogas, biomethane and biofertiliser all enhance sovereign capability and resilience. Recognising these contributions within the Community Benefit framework is essential to prioritising support for projects that anchor Australia's long-term industrial base and fuel security.

We also acknowledge the importance of First Nations participation, governance and tax transparency. Manildra Group supports efforts to deepen engagement with First Nations communities in regions where LCLF projects are established and proposed, and we are committed to

meeting all governance, compliance and transparency obligations, including those arising under the *Future Made in Australia Act*.

While all Community Benefit Principles are important, we consider that, for LCLF projects, the most critical are regional jobs and skills, domestic industrial capability and supply chains, community engagement, and transparent and responsible governance.

QUESTION 4.3: HOW WILL OVERSEAS POLICY DEVELOPMENTS INTERACT WITH DOMESTIC POLICY SETTINGS TO SUPPORT PROJECTS REACHING FINAL INVESTMENT DECISIONS? FOR EXAMPLE, LCLF DEMAND-SIDE TARGETS OR MANDATES, AND INTERNATIONAL FRAMEWORKS SUCH AS THE INTERNATIONAL CIVIL AVIATION ORGANISATION LONG-TERM GLOBAL ASPIRATIONAL GOAL FOR INTERNATIONAL AVIATION (LTAG) OF NET-ZERO CARBON EMISSIONS BY 2050.

Overseas policy developments are driving significant and growing demand signals for LCLFs. For Australian producers and investors, these settings provide both material opportunities and significant risks.

International measures such as the International Civil Aviation Organization's Long-Term Global Aspirational Goal for net-zero carbon emissions by 2050, the associated CORSIA sustainability and lifecycle rules, and emerging and existing LCLF mandates, renewable fuel quotas and LCLF standards are now shaping global investment decisions and offtake opportunities in transport, aviation and beyond. In parallel, the International Maritime Organization (IMO) is tightening decarbonisation requirements for international shipping, which is expected to increase demand for lower-carbon marine fuels and create both export-facing opportunities and heightened competitive pressure for fuel producers.

On the opportunity side, strong overseas demand-side policies can underpin long-term offtake agreements for Australian-produced ethanol, biodiesel, SAF and other LCLFs, especially where domestic production is certified under recognised international sustainability schemes. Manildra Group's renewable ethanol is certified under the Roundtable on Sustainable Biomaterials (RSB), and our wheat slurry starch (processing residue) feedstock is recognised under ICAO's CORSIA framework as an approved SAF feedstock. Together, these credentials demonstrate the potential for Australian LCLF production to supply premium international markets while strengthening domestic fuel security, supporting regional jobs and deepening agricultural value-adding. Although ethanol is not yet a mainstream marine fuel in its own right, global marine decarbonisation pathways are evolving rapidly. Maintaining policy settings that keep ethanol and ethanol-derived pathways – including their role as feedstocks for advanced marine and aviation fuels – in play will be important as IMO-driven standards and international demand continue to mature.

However, in the absence of a strong, coordinated domestic policy framework, these same developments risk diverting capital, feedstocks and production offshore to jurisdictions with stronger demand-side incentives and lower perceived risk. This dynamic is already evident in relation to first-generation LCLFs, where weak and inconsistently enforced state-based mandates and the absence of any national blending framework have contributed to investment flowing offshore, rather than into Australian capacity.

Without credible, durable domestic demand signals and investment certainty, Australia will forfeit investment to competing jurisdictions, and Australian projects will be unable to secure the offtake and supply-chain commitments required to reach FID. If overseas schemes offer more predictable and stable support, Australian LCLF projects may struggle to reach FID despite strong fundamentals, particularly considering higher construction, energy and financing costs in Australia. Domestic fuel users would then be forced to rely even more heavily on imported fuels, increasing exposure to price and supply shocks, undermining fuel security and hollowing out Australia's sovereign manufacturing base.

To ensure that overseas policy developments support, rather than undermine, Australian projects reaching FID, domestic policy settings should:

- align sustainability and lifecycle emissions frameworks with recognised international standards (such as RSB, ISCC, CORSIA and other credible LCA methodologies), to avoid duplicative certification, provide clarity for investors and protect the integrity and export acceptability of Australian sustainability claims as international rules tighten;
- establish clear domestic demand-side measures – including strengthened and enforced biofuel blending mandates, and, over time, a national LCLF standard – so that production supported under the Cleaner Fuels Program has reliable access to both domestic and export markets; and
- preserve and appropriately manage export eligibility, allowing producers to participate in international LCLF markets while maintaining a strong domestic supply and fuel-security focus – for example, through expectations around domestic availability where feasible, and settings that remain responsive to evolving IMO requirements and growing overseas demand for LCLF for the marine sector.

These complementary domestic measures, together with well-designed production support under the Cleaner Fuels Program, are essential to converting global policy signals into bankable Australian investments, securing long-term offtake agreements and enabling projects to reach FID, while delivering enduring benefits for national emissions reduction, regional development and sovereign fuel security.

QUESTION 4.4: IN ADDITION TO PRODUCTION SUPPORT, WHAT OTHER MEASURES ARE CONSIDERED CRITICAL TO ACHIEVE FINAL INVESTMENT DECISIONS FOR PROJECTS? WHAT ARE THEIR KEY FEATURES?

In addition to production support, Manildra Group submits that durable demand-side policy levers are critical to achieving final investment decisions for large-scale LCLF projects.

This should include the retention, strengthening and enforcement of existing first-generation biofuel blending mandates at the State level, together with the progressive development of nationally consistent first- and second-generation biofuel blending mandates and, in time, a national LCLF standard.

These measures should be complemented by government procurement policies that preference LCLFs in public sector fleets, aviation, freight and other relevant applications. Together, these instruments provide long-term volume and price signals that underpin offtake agreements and build investor confidence that projects will be able to recover their capital over the life of the asset.

FID will also depend on fit-for-purpose infrastructure, logistics and regulatory settings. In particular, investment will not proceed at scale without enabling supply-chain infrastructure across storage, blending, handling and distribution – including strategically located bulk storage, port and export terminal capacity, and reliable rail and road freight connections between production sites, domestic markets and export gateways – supported by targeted public investment where appropriate. Such investments should be designed to move LCLFs efficiently from large regional production sites to domestic end-users and export markets, enable higher blends within existing distribution systems, and support whole-of-supply-chain efficiency and integrity (including segregation where required, quality assurance, and operational flexibility to respond to market demand).

Additionally, streamlined and predictable regulatory approval processes are essential, including planning and environmental approvals, fuel quality and blending standards, sustainability certification and clear interfaces with other Commonwealth and State schemes. Investors need confidence that compliant projects can secure approvals in a timely, coordinated manner and that the underlying regulatory frameworks will remain stable over the long term.

Without clear mandates and policy signals, together with enabling infrastructure and regulatory certainty, production incentives alone will not be sufficient to bring major LCLF projects to FID.

QUESTION 4.5: WHAT ARE THE INTERSECTING POLICIES YOU EXPECT NEED TO BE CONSIDERED TO UNLOCK A DOMESTIC LCLF PRODUCTION INDUSTRY?

A range of intersecting Commonwealth and State policies will need to be considered alongside the Cleaner Fuels Program to unlock a durable, bankable domestic LCLF production industry, including:

- **Guarantee of Origin (GO) Scheme** – alignment of LCLF production incentives with GO certification for LCLFs, ensuring that carbon intensity and sustainability claims are measured once, are consistent, and recognised across schemes.
- **National Bioenergy Feedstock Strategy** – coordination on sustainable feedstock availability, prioritisation of waste and residue streams, and recognition of whole-of-crop utilisation to avoid competition with food production and underpin long-term feedstock security for domestic LCLF projects.
- **National Food Security Plan** – explicit recognition that fuel and energy security are inseparable from food security, and that value-adding agricultural outputs into food, feed and fuel through domestic manufacturing strengthens national resilience.
- **Commonwealth and State net zero and sectoral decarbonisation strategies** – ensuring that LCLF production is integrated into broader emissions-reduction pathways and targets (including transport, agriculture and heavy industry), and that policy settings for LCLFs are aligned with, and reinforced by, national and state net zero commitments.
- **International and domestic sustainability and certification frameworks (RSB, ISCC and ICAO CORSIA)** – alignment of Program eligibility and sustainability verification with recognised schemes such as the Roundtable on Sustainable Biomaterials (RSB), International Sustainability and Carbon Certification (ISCC) and ICAO's CORSIA sustainability and lifecycle rules, allowing projects to rely on a single set of robust certifications for both domestic compliance and export market access.
- **GreenPower scheme** – coordination to ensure consistent treatment of LCLFs across certificate and accreditation frameworks, enabling producers to credibly demonstrate the use of renewable inputs without duplication or conflicting rules.
- **Commonwealth and State renewable gas policies** – including renewable gas targets, renewable gas certification and market settings for biogas and biomethane, considering the close interaction between LCLFs, renewable gases and shared feedstocks and infrastructure.
- **NSW Renewable Fuel Strategy and Renewable Fuel Scheme** – integration of Cleaner Fuels production support with demand-side obligations and certificate schemes, ensuring that domestic production is matched by clear, enforceable demand for LCLFs in priority sectors.
- **Waste and environmental regulation, including treatment of digestate and other co-products** – clear, nationally consistent rules to ensure nutrient-rich biofertilisers and other co-products are recognised as valuable circular-economy outputs rather than defaulting to "waste" classifications, with appropriate exemptions where environmental outcomes are demonstrably positive.

- **Tax and excise settings** – preserve current fuel excise treatment so that LCLFs are not placed at a competitive disadvantage relative to fossil-fuel counterparts.
- **Safeguard Mechanism and National Greenhouse and Energy Reporting (NGER) framework** – alignment to ensure that emissions reductions from the production and use of LCLFs are transparently recognised in facilities' reported Scope 1 and 2 emissions and, where appropriate, in Scope 3 value-chain reporting, can be credited towards compliance obligations where appropriate, and are not double-counted across schemes.
- **Emerging carbon border adjustment and trade measures** – ensuring that Program settings, including sustainability and carbon-intensity rules, are compatible with key export markets so Australian LCLF producers are not exposed to new trade barriers and can compete on a level playing field while demonstrating robust climate and sustainability performance.

QUESTION 4.6: IS THERE ANY OTHER FEEDBACK YOU WOULD LIKE TO PROVIDE THAT ISN'T COVERED BY QUESTIONS ABOVE?

Please refer to our above comments.