Roundtable
on Sustainable
Biomaterials

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RSB Submission: Cleaner Fuels Program - Policy Design and Engagement

The Roundtable on Sustainable Biomaterials (RSB) is a global, independent sustainability non-profit organisation advancing the transition to a just, sustainable, circular bio-based and low-carbon economy. RSB develops and maintains robust sustainability standards for bio-based and power-to-X fuels, materials and chemicals through an inclusive, multi-stakeholder process involving industry, governments, NGOs, civil society and academia.

RSB has a growing presence in Australia, with members and certified operators across the bioenergy, fuels and materials value chains, and longstanding experience supporting sustainable low carbon liquid fuel deployment globally.

In addition to offering regulatory fuel certification schemes such as the EU Renewable Energy Directive (RED) and ICAO CORSIA, RSB operates internationally recognised voluntary sustainability standards, including a low indirect land-use change (low-ILUC) standard. This standard was developed through an inclusive, five-chamber stakeholder process and provides science-based assurance for feedstocks and fuels that are critical to the responsible scaling of low-carbon liquid fuels. RSB certification is already formally recognised under Queensland's biofuels legislation as an approved sustainability standard, demonstrating its credibility, regulatory alignment, and practical applicability within the Australian policy context[1].

In the Asia-Pacific region, RSB has recently delivered targeted studies and policy engagements to support sustainable aviation fuel development and deployment, including a 2024 study on SAF feedstocks in Southeast Asia[2], SAF Certification Trainings in India[3] and a 2025 Power-to-X Sustainability Roadmap for the APAC region[4], co-developed with Australian fuel industry experts and highlighting Australia's strong potential as a producer of sustainable PtX fuels.

This submission draws on RSB's global expertise, regional analysis and Australian engagement to support the effective design of the Cleaner Fuels Program and the development of a credible, sustainable domestic low-carbon liquid fuels industry.

[1] Liquid Fuel Supply Regulation 2016 - Queensland Legislation - Queensland Government
[2] https://rsb.org/programmes/projects/decarbonising-aviation-sustainably-in-southeast-asia/
[3] https://rsb.org/2025/10/20/rsb-isma-partnership-equips-indias-saf-producers-for-rsb-icao-corsia-and-icao-corsia-certification-ahead-of-2027/
[4] https://rsb.org/programmes/projects/ptx-sustainability-roadmap-for-apac-region/

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1. Eligible fuels

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

RSB supports consideration of an eligibility approach under the Cleaner Fuels Program that is guided by high-integrity sustainability criteria rather than a fixed list of fuel types. Anchoring eligibility in robust, internationally aligned principles can support environmental integrity, global market access and investment confidence.

RSB's Principles and Criteria (P&Cs)[5] provide a technology- and feedstock-neutral framework for assessing sustainability across lifecycle greenhouse gas emissions, land use, biodiversity, water and social impacts. These principles align with internationally recognised sustainability frameworks and can help ensure Australian LCLF are well positioned to compete in global markets. RSB's voluntary Standard for Advanced Fuels[6] builds on these principles by setting consistent sustainability and lifecycle emissions requirements across bio-based and power-to-X fuel pathways, while RSB's CORSIA Certification Scheme[7] demonstrates how such criteria can be applied in practice for fuels intended for international aviation markets.

Linking eligibility to sustainability performance thresholds would allow the market to identify the most efficient LCLF pathways while helping to safeguard against unintended environmental and social impacts. Within this approach, complementary program design features could be considered to support fuels serving hard-to-abate sectors — including aviation, maritime and certain industrial applications — where near-term alternative decarbonisation options are limited.

Overall, a sustainability-based, fuel-agnostic eligibility approach, aligned with global standards such as RSB's P&Cs and CORSIA-compatible certification, could effectively support emissions reductions, fuel security and Australia's participation in international low carbon fuel markets.

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?

RSB does not recommend prioritising specific LCLF types solely by fuel category. Instead, prioritisation should be guided by use-case relevance, sustainability performance and decarbonisation impact, within a fuel-agnostic eligibility framework.

In particular, fuels serving hard-to-abate sectors such as aviation, maritime and certain industrial applications warrant consideration, as these sectors have limited near-term alternatives to low carbon liquid fuels. For aviation, sustainable aviation fuel (SAF) is currently the primary scalable decarbonisation option, and alignment with international sustainability and accounting frameworks (such as those applied under CORSIA) is especially important. RSB also notes that SAF encompasses pathways at different stages of technological and commercial maturity, which may face varying market and financing challenges.

Any prioritisation mechanisms should remain complementary rather than exclusive, ensuring that support does not unintentionally favour lower-cost fuels at the expense of pathways delivering higher system-wide emissions reductions, sustainability outcomes or international market value. Anchoring prioritisation decisions in robust, internationally aligned sustainability criteria would help maintain environmental integrity while allowing the market to respond efficiently.

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[5] https://rsb.org/wp-content/uploads/2024/06/RSB-Principles-and-Criteria.pdf
[6] https://rsb.org/wp-content/uploads/2024/06/RSB-STD-01-010-RSB-Standard-for-advanced-fuels.pdf
[7] https://rsb.org/certification/certification-schemes/rsb-corsia-certification/

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b. Should LCLF for certain sectors or uses be de-prioritised due to other viable decarbonisation pathways?

While some sectors may have a broader range of decarbonisation options available over time, LCLF can continue to play a complementary role alongside electrification, efficiency improvements and other low-emissions technologies.

Any decisions to adjust support across sectors would be best guided by evidence-based assessments of decarbonisation need, sustainability performance and system-wide emissions impact, rather than by predetermined assumptions about technology pathways. Maintaining flexibility will help ensure the program can adapt as technologies evolve and avoid unintended constraints on future decarbonisation options.

c. What market impacts are anticipated by influencing prioritisation of particular fuel types?

Influencing the prioritisation of particular fuel types is likely to affect investment signals, feedstock allocation and technology development pathways within the LCLF market. Strong prioritisation of lower-cost or more mature fuels (e.g. HEFA) could accelerate near-term supply but may also risk crowding out investment in higher-impact or emerging pathways that are important for long-term decarbonisation (e.g. ATJ or PtL).
Conversely, a sustainability-based and use-case-aware approach to prioritisation can help direct investment toward fuels that deliver higher system-wide emissions reductions, support hard-to-abate sectors and enhance international market competitiveness. Careful program design will be important to avoid unintended consequences, such as reduced diversity of supply or misalignment with global sustainability and certification frameworks.

2. Type of production support

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?

a. Are there any potential benefits, risks or constraints considering the two different production credit options?

RSB does not take a position on whether production credits should be fixed or variable. However, each approach presents different potential benefits and risks that may be relevant to the program's objectives.

A fixed production credit can provide investment certainty and administrative simplicity, which may be particularly important for emerging and capital-intensive LCLF pathways. However, if set without reference to market conditions, it may risk over- or under-incentivising certain fuels over time.

A variable credit linked to market prices may improve cost efficiency and responsiveness to market signals, but could also introduce revenue volatility, potentially increasing financing risk for projects — especially for less mature pathways such as advanced biofuels and power-to-X fuels. RSB's work on power-to-X fuels in the APAC region highlights that early-stage technologies often face higher capital costs and market uncertainty, making predictability of support an important consideration for investment decisions.

Regardless of the mechanism chosen, RSB considers it important that production credits are designed in a way that:

- aligns incentives with verifiable sustainability and emissions outcomes, and
- avoids unintended impacts on feedstock use, technology diversity or long-term decarbonisation pathways.

b. What outcomes do you think can be delivered with the available funding?

Assessing specific production volumes or project-level outcomes that could be delivered with the available funding falls outside RSB's primary remit as a sustainability standards organisation and would require detailed market analysis and further stakeholder engagement.

However, at a high level, the Cleaner Fuels Program funding can play an important role in providing early market signals, reducing investment risk and enabling first-mover projects to progress toward final investment decision.

The outcomes ultimately delivered will depend on program design, including how effectively funding leverages private capital, supports a diversity of sustainable LCLF pathways, and maintains strong sustainability and emissions integrity. Well-targeted support can help build initial scale, strengthen domestic capability and position Australia to participate in international low carbon fuel markets over time.

c. What type of mechanism provides the greatest investment certainty or level of bankability to projects?

RSB does not take a position on specific policy instruments. However, insights from RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region*[8] indicate that investment certainty and bankability for emerging LCLF projects are primarily driven by revenue predictability, long-term policy stability and reduced exposure to market volatility.

For less mature pathways such as advanced SAF and power-to-X fuels, mechanisms that provide clear, durable and bankable revenue signals over sufficient time horizons are particularly important to enable access to finance and support first-of-a-kind and early commercial projects. Regardless of the mechanism used, alignment with robust sustainability and certification frameworks is critical to support offtake confidence and investor trust.

d. How can this support be structured to prevent substantial upside to producers?

RSB does not seek to prescribe specific design features to manage producer returns. However, at a high level, support mechanisms can be structured to balance investment certainty with value for money by linking support to verified production, sustainability performance and defined timeframes, and by incorporating periodic review or adjustment as markets mature.

More generally, ensuring that support is time-limited, transparent and aligned with sustainability and emissions outcomes can help prevent unintended windfall gains while maintaining sufficient certainty to enable early investment. Clear eligibility criteria and alignment with internationally recognised sustainability frameworks can further support accountability and public confidence in program outcomes.

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?

RSB does not seek to forecast LCLF pricing outcomes or recommend specific pricing approaches. In the short to medium term, pricing is likely to reflect a combination of production costs, limited supply, sustainability and certification requirements, and policy and offtake arrangements, with pricing structures varying across fuels, sectors and markets.

Over the longer term, as production scales and markets mature, pricing may increasingly be influenced by cost reductions, improved supply chains and greater market integration, alongside evolving carbon and sustainability policy settings. Regardless of the pricing reference used, RSB considers it important that pricing and support frameworks are transparent, aligned with verifiable emissions outcomes and internationally recognised sustainability criteria, to support market confidence and long-term decarbonisation objectives.

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[8] ptx-and-sustainable-aviation_rsb_november-2025_digital.pdf

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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?

RSB does not consider cost alone to be a sufficient basis for prioritising projects under the Program. While cost effectiveness is an important consideration for maximising value for taxpayers, an exclusive focus on lowest-cost production or abatement risks favouring more mature or lower-impact pathways and may not deliver optimal long-term decarbonisation outcomes.

A balanced approach that considers cost alongside sustainability performance, emissions integrity, use-case relevance and contribution to hard-to-abate sector decarbonisation would better support the Program's policy intent. In particular, emerging pathways with higher near-term costs but strong long-term decarbonisation potential may warrant consideration where they meet robust, internationally aligned sustainability and emissions criteria.

Overall, integrating cost metrics within a broader sustainability- and impact-based assessment framework can help ensure public support delivers durable emissions reductions, supports market development and maintains environmental and social integrity.

Question 2.3: Should the production credit be linked to the quantum of LCLF produced, or the carbon emissions saving potential of the fuel?

Linking production support to carbon-intensity performance can help ensure that incentives are directed toward fuels delivering higher lifecycle greenhouse gas emissions reductions, thereby strengthening the connection between public support and measurable decarbonisation outcomes.

At the same time, RSB notes that greenhouse gas reductions alone are not sufficient indicators of sustainability. Metrics related to land use, biodiversity, water, social impacts and broader environmental integrity — as reflected in RSB's Principles and Criteria — are also critical to ensuring that emissions reductions are achieved responsibly and without unintended consequences.

Anchoring any carbon-intensity-based approach within a robust, internationally aligned sustainability framework can help promote efficiency and fairness, support market confidence, and ensure the Program delivers durable emissions reductions consistent with its policy objectives.

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?

RSB does not seek to quantify cost differentials between domestic and international LCLF production, as costs vary widely by fuel pathway, technology maturity, feedstock availability, infrastructure and policy settings. In the near term, some domestic LCLF pathways may face higher costs compared to established international producers, particularly where supply chains and markets are still developing.

At the same time, the transition to low carbon liquid fuels is a global challenge, and meeting international climate objectives — including those underpinning CORSIA — will require increased production across multiple regions, not reliance on a limited number of exporting countries. RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region*[9] highlights that countries across the region will require access to sustainable fuels, feedstocks and renewable resources, and that Australia is well positioned to play a role in supporting regional supply chains over time.

[9] ptx-and-sustainable-aviation_rsb_november-2025_digital.pdf

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From a longer-term perspective, domestic production aligned with robust, internationally recognised sustainability standards can contribute to global emissions reduction efforts, while also delivering benefits related to fuel security, resilience and traceability. Program design that recognises both near-term cost challenges and the value of international collaboration and market integration can help support the development of a competitive and sustainable LCLF sector in Australia.

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?

RSB does not take a position on whether production credits should be capped at a project level, nor on the appropriate level of any such cap. These considerations relate to detailed program design, fiscal management and project economics, which fall outside RSB's primary remit as a sustainability standards organisation.

At a high level, RSB notes that any approach adopted should be transparent, proportionate and aligned with the Program's sustainability and emissions objectives, and should avoid undermining investment certainty for projects that meet robust, internationally aligned sustainability criteria.

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?

RSB does not recommend restricting LCLF production solely to domestic supply. Allowing both domestic use and exports can support project bankability, market scale and investment confidence, particularly for fuels serving internationally integrated sectors such as aviation and maritime.

Restrictions on exports could limit access to larger or more creditworthy offtake markets, increase project risk and slow the scale-up of sustainable LCLF production. From a broader perspective, the transition to low carbon fuels is a global challenge, and enabling internationally aligned, sustainably certified fuels to move across borders can support collective climate objectives, including those underpinning CORSIA.

At the same time, strong sustainability frameworks and traceability requirements are important to ensure that both domestic and export-oriented production delivers genuine emissions reductions and contributes positively to fuel security, resilience and long-term market development.

Question 2.7: Is there a role for combined production support with capital grants for first-of-a-kind facilities?

RSB considers that there is a strong role for combined capital support and production-linked incentives in enabling first-of-a-kind (FoAK) facilities for advanced biofuels and power-to-X fuels. Insights from RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region* highlight that FoAK projects face not only high upfront capital and technology risk but also extended periods of commercial uncertainty beyond initial commissioning, as supply chains, offtake markets and operational performance mature.

Experience from early SAF and advanced fuel projects internationally demonstrates that FoAK is not a single hurdle, but the beginning of a longer scale-up journey. Blended support approaches can help projects navigate successive "valleys of death" by reducing early financial risk, enabling learning-by-doing, and sustaining momentum through early commercial operation, where costs remain high and revenues uncertain.

Where applied, such support should be time-limited, performance-based and aligned with robust sustainability and emissions criteria, ensuring that early public investment delivers durable emissions reductions and supports the transition from demonstration to scalable, competitive production.

Question 2.8: What other types of funding or concessional finance could support LCLF projects (e.g. funding from CEFC and NRF)?

RSB does not take a position on specific domestic funding instruments or concessional finance mechanisms, including the use of particular Australian financial institutions, as these considerations fall outside RSB's primary remit as a sustainability standards organisation.

At a high level, RSB notes that any public or concessional finance used to support LCLF projects should be aligned with robust, internationally recognised sustainability and emissions criteria, and designed to complement private investment while supporting credible, scalable decarbonisation outcomes.

Question 2.9: Is any other support required across the supply chain to enable domestic production of LCLF?

Insights from RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region*[10] and the *Sustainable Feedstock Assessment for SAF in Southeast Asia*[11] indicate that enabling domestic production of low carbon liquid fuels (LCLF) requires coordinated support across the full value chain, beyond production incentives alone. Key areas include:

- **Capital support for early and first-of-a-kind facilities**
  Targeted capital support can reduce upfront risk for advanced biofuels and power-to-X pathways, complement production-linked incentives, and enable learning-by-doing through early commercial deployment. Both studies highlight that FoAK projects face multiple "valleys of death" extending beyond initial commissioning.

- **Feedstock development and sustainability assurance**
  Support is needed for feedstock innovation, aggregation and supply chains, alongside robust sustainability risk profiling. Applying internationally recognised sustainability criteria — covering land use, biodiversity, water and social impacts — is critical to ensuring feedstock scale-up is credible and responsible.

- **Enabling infrastructure and logistics**
  Investment in processing facilities, storage and blending infrastructure, transport logistics, and access to utilities and decarbonisation inputs can materially improve project bankability and reduce lifecycle carbon intensity.

- **Demand-side and market-enabling measures such as Book and Claim**
  Clear demand signals aligned with lifecycle emissions performance are essential to underpin investment. The studies highlight the role of mechanisms such as Book and Claim, which can support early market

[10] ptx-and-sustainable-aviation_rsb_november-2025_digital.pdf
[11] rsb-sustainable-feedstock-assessment-saf-in-southeast-asia.pdf

development and offtake confidence where physical supply chains are still emerging, while maintaining environmental integrity.

- **Manufacturing capacity, skills and risk mitigation**
  Expanding domestic manufacturing capability and workforce skills can reduce costs and accelerate deployment. Risk-mitigation approaches, including tools to address contingency and delivery risks for FoAK projects, can further improve bankability and reduce overly conservative financing assumptions.

Overall, both studies conclude that aligning supply-chain support, market-enabling measures and risk management within robust, internationally recognised sustainability frameworks is essential to unlocking investment, supporting regional collaboration and enabling Australia to participate competitively in regional and global low carbon fuel markets.

Question 2.10: What lessons can Australia learn from other jurisdictions that have already implemented LCLF production support measures?

Insights from RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region* and the *Sustainable Feedstock Assessment for SAF in Southeast Asia* highlight several lessons from jurisdictions that have already implemented LCLF production support measures:

- **Long-term policy certainty matters**
  Jurisdictions that have successfully catalysed LCLF investment provide stable, long-term signals that extend beyond pilot or first-of-a-kind projects, enabling projects to progress through multiple stages of scale-up.

- **Blended and coordinated support is often required**
  Experience shows that production incentives alone are rarely sufficient for emerging pathways. Combining capital support, operating support and risk-sharing mechanisms has helped address early-stage technology, market and financing risks.

- **Strong sustainability frameworks underpin credibility and market access**
  International experience demonstrates that robust, transparent sustainability and lifecycle emissions criteria are essential to maintaining public confidence, enabling offtake, and ensuring access to international markets such as aviation under CORSIA.

- **Demand-side measures accelerate market formation**
  Jurisdictions that have paired supply-side support with demand signals — including mandates, procurement commitments or Book and Claim mechanisms — have been more effective in creating predictable markets and attracting investment.

- **Supply-chain and infrastructure readiness is critical**
  Lessons from other regions highlight the importance of early investment in feedstock supply chains, infrastructure and skills, to avoid bottlenecks that can delay scale-up even where production support is available.

Overall, the studies suggest that successful LCLF policy frameworks take a systems approach, aligning production support with sustainability assurance, demand creation and supply-chain development to enable durable and scalable outcomes.

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3. Fuel production

Question 3: Considering this objective, what production pathways should be focused on or prioritised?

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?

RSB does not support prioritising production pathways solely on the basis of technological maturity. Drawing on insights from RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region* and related feedstock analysis, a technology-agnostic, portfolio-based approach is more likely to support strategic growth and long-term scalability of Australia's low carbon liquid fuels (LCLF) industry.

More established pathways such as HEFA and HVO can play an important role in delivering near-term supply and operational learning, where sustainable feedstocks are available and robust sustainability criteria are met. However, the studies highlight that reliance on a limited set of mature pathways alone will be insufficient to meet growing long-term demand, particularly in hard-to-abate sectors such as aviation.

Emerging pathways — including Alcohol-to-Jet (ATJ), hydrothermal liquefaction, pyrolysis, thermochemical biomass-to-liquid routes, Fischer-Tropsch processes and power-to-X aviation fuels — are advancing rapidly and are expected to be critical for achieving meaningful scale over time. These pathways can leverage Australia's abundance of agricultural waste (e.g. rice straw). While these pathways typically carry higher technology and investment risk at early stages, they also offer significant long-term emissions reduction potential, reduced reliance on constrained biomass resources, and opportunities for regional development and innovation.

Rather than excluding less mature pathways, program design could support a sequenced pipeline of technologies, with differentiated support that reflects technology maturity while applying common sustainability and emissions integrity guardrails. This approach helps avoid bottlenecks, supports innovation, and enables projects with the greatest long-term impact to progress alongside lower-risk options.

Overall, RSB considers that limiting support to HEFA and HVO risks constraining industry growth and innovation, whereas a technology-agnostic framework grounded in robust sustainability criteria is better suited to building a resilient and scalable domestic LCLF sector.

b. How can nascent production pathways compete with more-established production pathways (e.g. HEFA and HVO)?

Nascent production pathways can compete with more-established pathways where program design recognises differences in technology maturity and risk, while maintaining common sustainability and emissions integrity requirements. Insights from RSB's PtX and SAF work highlight the importance of targeted de-risking for early-stage pathways, including support for first-of-a-kind deployment, learning-by-doing and early market formation. Ensuring technology-agnostic eligibility, aligned sustainability criteria and mechanisms that reduce financing and offtake risk can allow emerging pathways to scale alongside established options, rather than being crowded out solely on the basis of near-term cost or maturity.

b. What minimum stage of project development (and evidence) should be expected by projects under the program?

RSB does not seek to define specific project readiness thresholds. However, at a high level, projects supported under the Program could be expected to demonstrate:

- **Credible sustainability credentials**, including alignment with internationally recognised sustainability principles and lifecycle emissions accounting frameworks;
- **Technical and delivery feasibility**, supported by appropriate engineering studies, technology readiness assessments or pilot/demonstration evidence commensurate with pathway maturity;
- **Feedstock and supply-chain viability**, including evidence of sustainable feedstock sourcing and infrastructure planning;
- **Market and offtake intent**, such as indicative offtake discussions or demand signals appropriate to the project stage;
- **A clear pathway to scale**, including how the project contributes to longer-term industry development beyond initial deployment;
- **Broader ecosystem impacts,** such as broader soil, water and biodiversity impacts from regenerative agricultural practices, or social impacts from job creation or retention.

The level of evidence required should be proportionate to technology maturity, recognising that first-of-a-kind and emerging pathways may require different forms of validation than more established production routes, while still meeting robust sustainability and emissions integrity expectations.

Question 3.2: Should there be a minimum facility size to be eligible?

RSB does not recommend setting a strict minimum facility size as an eligibility requirement. Commercially viable scale can vary significantly by technology, feedstock and location, and smaller, regionally distributed facilities can be competitive while delivering strong community, resilience and supply-chain benefits.

At the same time, prioritising projects that demonstrate a credible pathway to commercial operation and scale-up may help ensure efficient deployment of public support. A flexible approach that assesses projects based on sustainability performance, viability and contribution to long-term industry development, rather than facility size alone, would better accommodate both established and emerging pathways.

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?

RSB supports the use of a carbon-intensity (CI) performance threshold as an eligibility requirement, provided it is grounded in robust lifecycle assessment and internationally aligned sustainability frameworks. Linking eligibility to verified CI reductions helps ensure that public support delivers genuine and measurable emissions benefits.

However, RSB does not recommend relying on CI performance alone. Greenhouse gas reductions must be complemented by other sustainability criteria to ensure that fuels deliver net environmental and social benefits. RSB's Principles and Criteria and the RSB Standard for Advanced Fuels address key considerations beyond GHG emissions, including:

- land use and protection of high conservation value areas,
- indirect land-use change (addressed through a risk-based approach),
- water use and quality,
- biodiversity protection, and

- labour, social and community impacts.

Accordingly, calculation and verification of CI performance should be embedded within a broader sustainability framework, using full lifecycle emissions accounting and independent certification. RSB's CORSIA Certification Scheme and Standard for Advanced Fuels provide internationally recognised examples of how CI thresholds can be applied alongside comprehensive sustainability safeguards.

Overall, anchoring eligibility in both CI performance and broader sustainability criteria supports environmental integrity, public confidence and international market acceptance, while allowing flexibility as technologies and markets evolve.

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?

Yes, a minimum carbon-intensity (CI) threshold would still play an important role, even where production incentives are based on emissions reductions rather than volume produced.

A minimum CI threshold helps establish a baseline level of environmental integrity, ensuring that only fuels delivering meaningful lifecycle emissions reductions are eligible for support. This is particularly important to avoid incentives flowing to pathways with marginal abatement outcomes or high variability in performance.

At the same time, CI-based incentives can reward incremental improvements above the threshold, encouraging continuous performance improvement and innovation. As noted previously, CI thresholds should be applied within a broader sustainability framework, recognising that GHG performance alone does not capture all relevant environmental and social impacts.

Overall, combining a minimum CI eligibility threshold with performance-based incentives can help balance environmental integrity, investment certainty and efficient use of public funds.

b. Should Indirect Land Use Change be included in the method for determining carbon intensity, for the purpose of the Program?

Yes — RSB considers that Indirect Land Use Change (ILUC) should be incorporated into carbon intensity assessments in a proportionate, risk-based manner that reflects real sustainability outcomes rather than relying on blanket penalties.

ILUC can materially affect the lifecycle carbon performance of certain feedstocks and pathways. A credible carbon intensity methodology should therefore account for ILUC risk where relevant, consistent with internationally recognised sustainability frameworks and best practices.

RSB's own *Low-ILUC Risk Biomass Module*[12] applies a risk-based approach, identifying when feedstocks are genuinely low risk and when additional mitigation is needed. This approach helps distinguish between feedstocks with minimal indirect effects and those with higher potential impacts without unfairly penalising responsible producers.

Overall, incorporating ILUC into CI assessments through risk-based evaluation and robust evidence can strengthen environmental integrity while avoiding unintended consequences associated with overly simplistic or uniform ILUC adjustments.

c. Should any feedstocks be prioritised or otherwise considered out of scope?

[12] RSB Low ILUC Risk Biomass Module – RSB

RSB does not recommend pre-defining specific feedstocks as priorities or excluding them solely by category. Instead, feedstocks should be assessed against robust, internationally recognised sustainability criteria, including lifecycle emissions performance, ILUC risk, land use, biodiversity and social impacts.

RSB's feedstock assessments, including work in Southeast Asia, highlight that sustainability outcomes are highly context-specific, reinforcing the importance of evidence-based, risk-based evaluation rather than categorical inclusion or exclusion. Feedstocks that cannot demonstrate acceptable sustainability performance under such frameworks would be appropriately considered out of scope.

Question 3.4: Other than carbon intensity, should any other sustainability criteria be included?
In addition to carbon intensity other sustainability criteria to be considered include:

Yes. RSB considers that carbon intensity alone is not sufficient to ensure the sustainability of low carbon liquid fuels. Additional criteria are essential to safeguard environmental integrity, social licence and long-term market credibility. In addition to carbon intensity, RSB's globally recognised *Principles & Criteria*[13], the *RSB Standard for Advanced Fuels*[14] and the *RSB CORSIA Certification Scheme*[15] identify key sustainability considerations applicable across fuel pathways, including:

- **Land use and biodiversity protection**, including avoidance of high conservation value and high carbon stock areas;
- **Indirect land use change (ILUC) risk**, addressed through proportionate, risk-based assessment and mitigation;
- **Water use and quality,** particularly in water-stressed regions;
- **Feedstock sustainability**, **traceability and chain-of-custody**, including additionality and avoidance of competition with food and feed;
- **Labour rights, social impacts and community engagement**, to ensure responsible development; and
- **Governance, transparency and independent verification**, to maintain public confidence and market integrity.

RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region*[16] further highlights that emerging pathways such as power-to-X fuels will require dedicated frameworks for sustainable raw material sourcing, traceability and supply-chain management as these technologies scale.

Incorporating these criteria alongside carbon intensity — within robust, internationally aligned sustainability frameworks — helps ensure that emissions reductions are achieved responsibly and that public support contributes to durable, high-integrity decarbonisation outcomes.

Question 3.5: Which international and domestic sustainability schemes should be allowed to verify sustainability claims?

Sustainability claims under the Program should be verified through internationally recognised certification schemes, including those recognised for use under CORSIA.

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[13] RSB-Principles-and-Criteria.pdf
[14] RSB-STD-01-010-RSB-Standard-for-advanced-fuels.pdf
[15] https://rsb.org/certification/certification-schemes/rsb-corsia-certification/
[16] ptx-and-sustainable-aviation_rsb_november-2025_digital.pdf

RSB is a CORSIA-recognised sustainability scheme and one of the most comprehensive and rigorous global certification systems for low carbon fuels. It provides lifecycle emissions accounting alongside robust environmental and social sustainability criteria, traceability and independent verification, and is distinguished by its independent oversight[17], multi-stakeholder governance model, and principles that go beyond minimum regulatory requirements to support a holistic and credible sustainability transition.

Allowing RSB to be used alongside other CORSIA-recognised schemes would support international alignment, market access and high-integrity sustainability outcomes.

4. Other policy considerations

Question 4.1: What are your views on the aforementioned factors affecting the merit of a proposal?

RSB supports the inclusion of clear and transparent merit criteria to assess proposals under the Program. In particular, RSB considers it important that assessment factors place strong emphasis on sustainability and emissions integrity, including lifecycle greenhouse gas performance, treatment of land-use and feedstock risks, traceability and alignment with internationally recognised sustainability frameworks.

Care should be taken to ensure that merit assessment does not over-prioritise short-term cost or technological maturity at the expense of long-term decarbonisation impact, market credibility and social licence. A balanced set of merit criteria can help ensure that supported projects deliver durable emissions reductions and contribute to the development of a high-integrity domestic LCLF sector.

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?

RSB considers the Community Benefit Principles under the Future Made in Australia Act to be directly relevant to low carbon liquid fuel projects, given their reliance on feedstocks, infrastructure development, skilled workforces and engagement with local and First Nations communities. These principles align closely with RSB's internationally recognised Principles & Criteria, which address social, economic and governance outcomes alongside environmental performance.

RSB's framework covers all of the Community Benefit Principles, including secure and safe employment, skills development and workforce inclusion, community engagement and benefit-sharing, respect for First Nations rights, strengthening domestic supply chains, and transparent governance. These elements are addressed through sustainability standards and safeguards, while recognising that the practical implementation of some principles — such as workforce programs or industrial policy settings — appropriately sits with government and project proponents.

RSB's work also highlights the importance of workforce transition and skills redeployment, including for workers from legacy fossil fuel refining and related sectors. Targeted training and reskilling can support movement into new roles across feedstock supply, fuel production, infrastructure and logistics, often at or near existing industrial sites.

Many LCLF projects are likely to be located in regional areas close to feedstock sources, reinforcing the importance of early and ongoing engagement with local and First Nations communities to ensure shared benefits, social acceptance and long-term regional development.

[17] https://rsb.org/2025/12/02/rsb-oversight-report-2025-certification-transparency/

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Overall, RSB considers that aligning Community Benefit Principles with robust sustainability standards and proactive workforce transition measures can help ensure LCLF projects support a just transition, strengthen domestic industrial capability and deliver durable social licence.

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 play an important role in supporting Australian LCLF projects to reach final investment decision by shaping long-term demand, price signals and market access, particularly for internationally traded fuels such as sustainable aviation fuel. RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region* highlights that international frameworks — including ICAO's LTAG and sustainability and lifecycle requirements applied under CORSIA — are central to creating credible, bankable markets for low carbon fuels.

Domestic policy settings that are aligned with these international frameworks can reinforce investor confidence by reducing regulatory uncertainty, enabling access to overseas demand-side measures (such as SAF targets and mandates), and supporting export opportunities. Alignment on sustainability criteria, lifecycle accounting and recognised certification helps ensure Australian projects can participate in global markets, leverage international offtake and contribute effectively to shared global decarbonisation objectives.

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?

While RSB does not provide detailed investment support prescriptions, insights from the *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region* indicate that broader enabling measures beyond production support are critical for projects to reach final investment decision (FID). These measures help reduce perceived risk, strengthen revenue certainty, and build credible markets for low carbon liquid fuels.

Key measures include:

- **Clear and sustained demand signals**
  Predictable demand frameworks — such as global and regional SAF targets, low carbon fuel standards, and offtake commitments — help underpin long-term revenue expectations and reduce offtake risk.
- **Aligned sustainability and certification frameworks**
  Consistency between domestic requirements and internationally recognised systems (e.g., CORSIA-aligned criteria, traceability and verification standards) reduces compliance risk and supports access to export and compliance markets.
- **Supply-chain and infrastructure support**
  Early investment in feedstock supply chains, logistics, storage, blending facilities and utilities (e.g., renewable hydrogen) can reduce execution risk and improve project bankability.
- **Workforce transition and skills development**
  Targeted training, reskilling and labour transition support help ensure access to the skilled workforce needed for project delivery and operations, including for workers transitioning from legacy fossil fuel sectors.

- **Risk-mitigation mechanisms**
  Tools that reduce technology, delivery and market risk — such as support for first-of-a-kind demonstration, insurance or early revenue support — can improve investor confidence and facilitate access to finance.

Collectively, these measures complement production incentives by addressing the broader ecosystem of risks and enablers that influence investment decisions and long-term commercial viability of sustainable fuel projects.

Question 4.5: What are the intersecting policies you expect need to be considered to unlock a domestic LCLF production industry?

Unlocking a domestic low carbon liquid fuels (LCLF) industry will require a coordinated suite of intersecting policies that address market demand, supply chains, infrastructure, workforce capacity and sustainability governance. Insights from RSB's *PtX and Sustainable Aviation Roadmap for the Asia-Pacific region* underscore that production support alone is unlikely to catalyse investment and scale without complementary frameworks that reduce risk and strengthen market signals.

Key intersecting policies include:

- **Demand-side mechanisms** such as SAF targets/mandates, low carbon fuel standards or procurement commitments that create predictable, long-term offtake demand and revenue certainty for producers.
- **National feedstock strategies** that optimise the sustainable mobilisation of biomass, residues and other resources, address seasonal and regional variability, and provide clarity on land use, additionality and traceability.
- **National hydrogen and carbon management strategies** that coordinate the build-out of renewable energy, hydrogen production, CO_2 capture, transport and storage infrastructure, all of which are essential inputs for power-to-X LCLF pathways.
- **Infrastructure investment frameworks** that support processing, blending, storage, logistics and utilities needed to link feedstock sources with production facilities and end markets.
- **Monitoring, reporting and verification (MRV)** and sustainability reporting schemes that align domestic carbon accounting and fuel sustainability requirements with international frameworks (e.g., lifecycle emissions standards, CORSIA-aligned criteria) to reduce compliance risk and enable access to export markets.

Together with production incentives, these intersecting policies can help create the enabling ecosystem — from demand clarity and sustainable feedstock supply to reliable infrastructure and trusted sustainability governance — needed to unlock a viable and scalable domestic LCLF industry.

Question 4.6: Is there any other feedback you would like to provide that isn't covered by questions above?

RSB notes that the consultation questions cover many of the key issues relevant to establishing a domestic low carbon liquid fuels industry.

One additional area we wish to highlight is the growing relevance of Book and Claim mechanisms, particularly in supporting the early ramp-up and economics of sustainable aviation fuel (SAF) where physical supply chains and distribution infrastructure are still developing.

Based on RSB's experience, high-integrity Book and Claim systems can help unlock demand, improve offtake certainty and enable investment by allowing verified sustainability and emissions attributes to be transferred independently of physical fuel delivery. Recent international developments demonstrate the potential role of policy in enabling such

approaches. In particular, Brazil is emerging as a pioneer in exploring policy-supported, high-integrity Book and Claim frameworks, informed by RSB's capacity-building and application studies for the Brazilian market[18].

RSB considers that, if designed with robust sustainability standards, traceability and independent verification, Book and Claim mechanisms could play a complementary role alongside physical supply pathways, particularly for SAF, helping to accelerate market formation and support investment in domestic LCLF production.

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[18] RSB Publishes First Application Study on Book and Claim Capacity Building Project For the Brazilian Market – RSB