



# Achieving a viable Low Carbon Liquid Fuels Industry in Australia

*A value-chain perspective*

**AUGUST 2026**



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## **Climate Leaders Coalition**

[www.climateleaders.org.au](http://www.climateleaders.org.au)

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# Foreword

## Acknowledgement of Country

The Climate Leaders Coalition acknowledges and pays our respects to Aboriginal and Torres Strait Islander peoples as the First Peoples of Australia whose ancestral lands and waters we work and live on.

We honour their wisdom and pay respect to Elders past and present and acknowledge the cultural authority of all Aboriginal and Torres Strait Islander peoples across Australia.

The Climate Leaders Coalition is a group of CEOs and their businesses, committed to climate goals and pre-competitive collaboration on areas of common interest.

The Climate Leaders Coalition companies come to the low carbon liquid fuels opportunity from different parts of the same value chain. Some lead businesses that could help produce low carbon liquid fuels domestically, others lead businesses that may purchase, transport, store, distribute or support their use. Different parts of the value chain, but one shared interest in understanding what it would take for an Australian low carbon liquid fuels industry to develop successfully.

Aviation and heavy freight are among the hardest sectors to decarbonise, and low carbon liquid fuels are one of the few credible pathways available to them this decade. Built here, this industry has the potential to strengthen fuel security and create regional jobs and investment. Built somewhere else, Australia may continue to rely on import fuels and hand the economic benefits to someone else.

This report is the product of work by companies and organisations across the value chain, brought together by the Climate Leaders Coalition, to explore the opportunities, challenges and uncertainties associated with developing a low carbon liquid fuels industry in Australia. Participants contributed information, expertise and perspectives to inform the discussion. Given the complexity and emerging nature of the sector, participants do not necessarily agree on every assumption, modelling approach, finding, policy mechanism or conclusion contained in this report. Rather than presenting a consensus position, the report is intended to support informed dialogue and consideration of issues relevant to the development of the industry.

We offer this report as a contribution to an important national conversation about the role low carbon liquid fuels may play in Australia's future.



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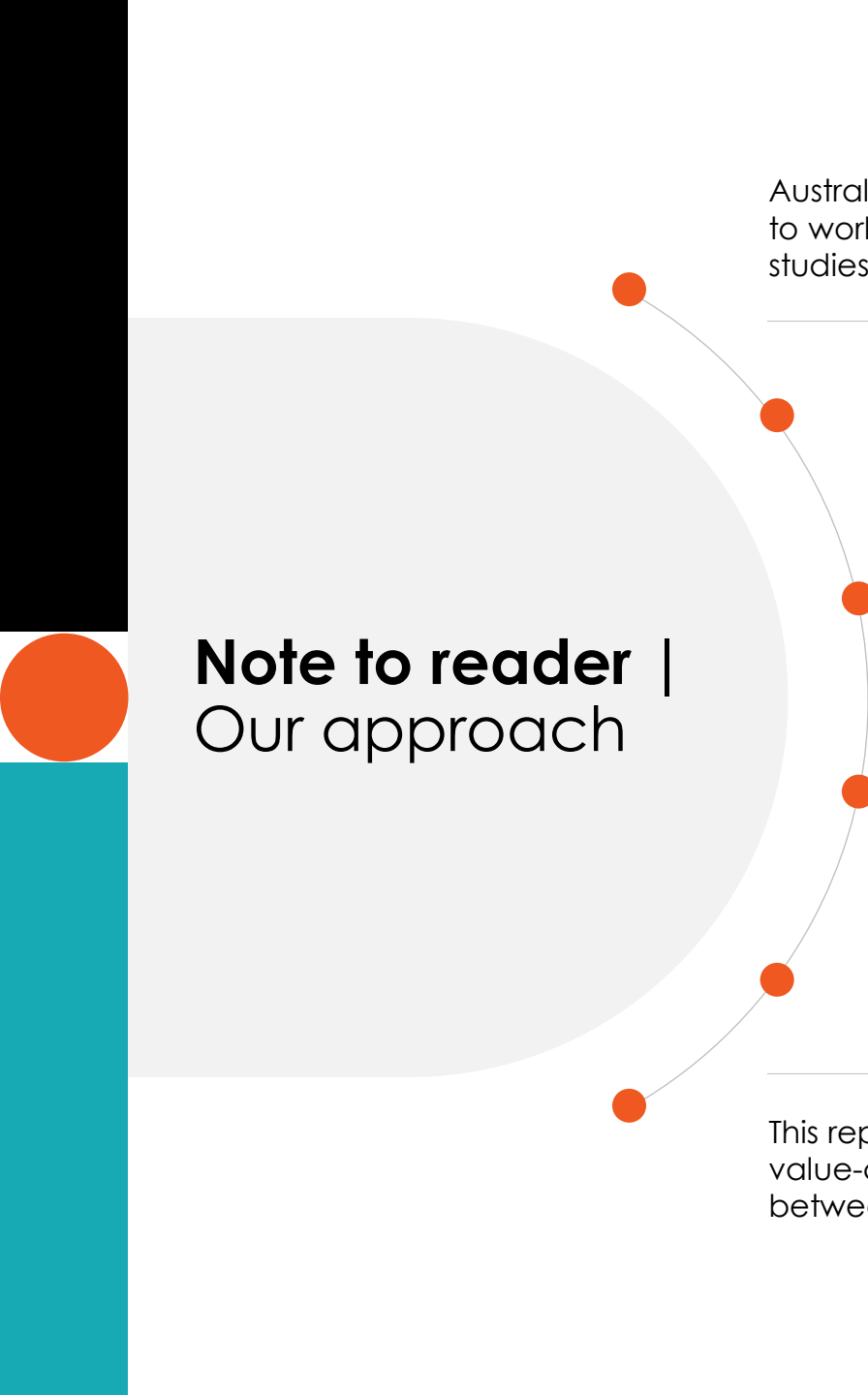
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## Note to reader | Our approach

Australia's low carbon liquid fuels industry is still early-stage, and one of the challenges the industry needs to work through together is consistency: in carbon accounting, cost methodologies, and how different studies define and measure the same thing.

A great deal of credible work has already been done to quantify the costs and opportunity of an Australian LCLF industry — including analysis published by Sydney Airport, GrainCorp, and various state governments. This report doesn't seek to replace or adjudicate between that work; it draws on it.

Part of the reason industry is looking for a Guarantee of Origin (GO) scheme is that it would give the market a single, agreed methodology for measuring and verifying low carbon liquid fuels — something that doesn't fully exist yet. Until it does, different organisations and different reports will reasonably produce different numbers.

For this report, the Working Group chose to build on the modelling in Refined Ambitions (CEFC/Deloitte, 2025) — an independent, credible model already familiar to industry and government — rather than developing a new one. Rennie Advisory extended this model, at the Working Group's direction, to support a whole-of-value-chain view.

Not every participating organisation agrees with every number in this modelling — and that's expected at this stage of the industry's development, where methodologies are still maturing and inputs like feedstock pricing and carbon pathways remain uncertain.

This report is not intended to settle those modelling questions. Its purpose is to offer a shared, whole-of-value-chain way of thinking about the challenge — a common starting point for continued dialogue between industry and government, not a final position on any single number.



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## The question this report answers

“

***What conditions must exist for industry to invest in an Australian LCLF industry that strengthens fuel security, is economically viable, and reduces emissions?***”

This report sets out why Australia should build a domestic LCLF industry, defines what a successful industry looks like, diagnoses why it is not currently investible, and specifies what must change. It extends, rather than repeats, the evidence base established by *Refined Ambitions* (CEFC, 2025) and CSIRO's LCLF opportunities work.

# Executive summary

Australia already participates in the global LCLF market through the export of feedstock material and as an importer of fuels. As the nation explores the opportunity of domestically produced LCLF, we must ensure the Australian fuel system stays affordable, secure and low-carbon. Domestic LCLF must be assessed holistically against fuel security, economic viability, carbon abatement and regional development objectives.

This report seeks to answer the question of whether public and private investment in a domestic industry is justified and considers the broader benefits:

- **Fuel security** - domestic supply as a hedge against disruption to imported fuel, which storage and offsets do not replace in full.
- **Limited abatement alternatives** - aviation, and some other hard-to-abate uses, have few near-term options other than LCLF. In heavy road freight, LCLFs can provide a pathway for long-distance, high-payload and infrastructure-constrained freight tasks.
- **Regional economic opportunity** - investment, activity and employment concentrated in feedstock-producing regions.
- **Sovereign capability and innovation** - retaining the industrial and technical capacity to produce these fuels domestically.
- **Cost and learning trajectory** - the extent to which early domestic investment shapes future cost positions.

These objectives need to be weighed alongside the broader economic impact to the fuel value chain and the wider Australian public.

Two implications follow.

1. Because the case rests on strategic and regional value rather than volume or price alone, it suggests a smaller, more targeted and strategically located industry that is right-sized and directed to achieving specific objectives such as fuel security and regional economic development.
2. The residual cost of producing domestically is best understood as the ongoing price of the security, capability and regional development that domestic production provides. Where a premium is paid, it should be attributed transparently to the objectives it serves and sized to what those objectives are worth, rather than treated as an undifferentiated cost.

Stakeholders across the LCLF value chain are calling for intervention to address key barriers to progress:

- **Investors** are asking for policy support that provides the certainty needed for projects to reach FID.
- **Fuel buyers** want government to set the demand signal, not wait for the market to form one.

1

**Why should Australia build  
a domestic LCLF industry?**

# Australia already participates in the global LCLF market through the export of feedstock material and as an importer of fuels

## Domestic LCLF production can deliver additional benefits:



### Support achieving decarbonisation

- Liquid fuel use produced ~150 Mt CO<sub>2</sub>-e in 2022-23, among the hardest emissions in the economy to abate, and the figure is still rising.<sup>1</sup>
- 49% of consumption sits in sectors where electrification is challenging (aviation, mining, rail, maritime, construction and heavy road freight<sup>2</sup>) which will remain dependent on liquid fuels through their transition period or in their long-term future state, in some cases post-2050<sup>1</sup>.
- International regulation and mandates will drive uptake of LCLF globally, domestic production can secure that abatement.
- Electrification will not be possible in all cases and LCLF offers a pathway for abatement. Without support to decarbonise, Australia's transport sector will become Australia's largest source of emissions by 2030<sup>1</sup>.
- However, with only three LCLF technology-feedstock combinations currently able to produce LCLF below a \$1000/t abatement cost, there are economic viability questions<sup>3</sup>. At this level, SAF abatement costs are higher than the cost of achieving the same tonne of abatement through ACCUs, but with additional benefit of fuel security and reducing increasing ACCUs cost exposure over time<sup>3</sup>.



### Bolster fuel security

- Australia imports more than 80% of its liquid fuel, concentrating supply risk in offshore refineries and extended shipping routes.
- Domestic production uses feedstocks over which we have sovereignty, reducing reliance on imported refined product and extended supply chains.
- Sovereign capability matters to strategic fuel users and continuity of supply can carry a premium over least-cost imports.
- In doing so it adds to sovereign refining capability, anchors long-lived assets and skilled jobs in regional economies through an aggregation and processing sector, and establishes the certification and supply chain infrastructure on which a broader Australian bioeconomy can be built.



### Increase economic development

- Australia currently exports raw feedstock and imports the LCLF refined product back. Australia can capture value onshore by developing processing.
- Feedstocks are often in regional communities, some requiring transition such as sugarcane, and diversion of wastes can create invaluable secondary incomes for producers.
- LCLF production can support development of capability for a broader bioeconomy.
- Australia today sits at both ends of the LCLF value chain: it exports unprocessed feedstock and imports refined fuel. A domestic industry closes that loop, converting agricultural outputs into finished fuel onshore and capturing processing value that currently accrues offshore.

<sup>1</sup> Source: Refined Ambitions: Exploring Australia's low carbon liquid fuel potential, Deloitte/CEFC, 2025

<sup>2</sup> Battery-electric heavy-duty vehicles are becoming increasingly viable for predictable and return-to-base operations, while renewable diesel and other verified low-carbon liquid fuels are likely to play an important role for longer-distance, regional and infrastructure-constrained freight tasks.

<sup>3</sup> Source: CEFC Refined Ambitions (2025).

# Australia's liquid-fuel system must be economically viable, secure and offer sustainable decarbonisation

Support for domestic LCLF production must consider the system's objectives and be justified in terms of public value:

Australia's liquid fuel choice has three considerations that need to be carefully balanced: economic viability, security and sustainability.

- Staying on imported fossil fuel is cheaper but neither secure nor low carbon.
- Imported LCLF is low carbon, comes at a cost premium, and leaves supply exposed.
- All-domestic LCLF strengthens security and cuts emissions – affordability remains the gap.

This report makes the case for a domestic LCLF capability right-sized to strengthen security and cut emissions without bearing the full cost of self-sufficiency.

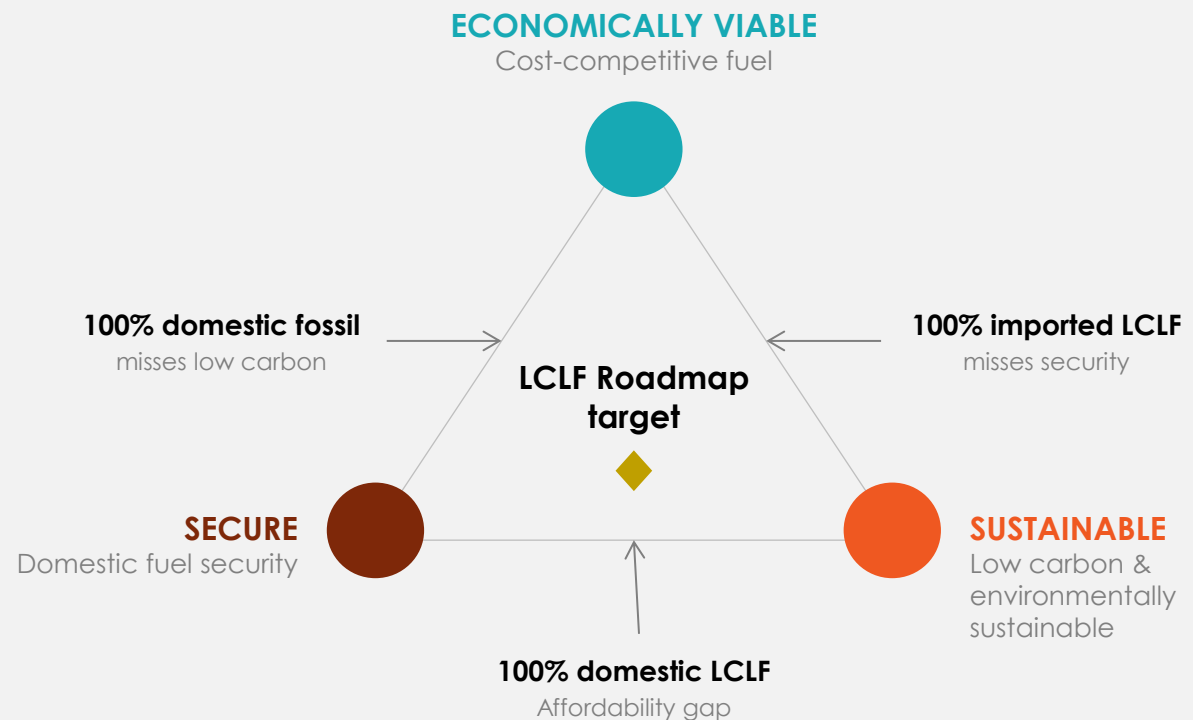
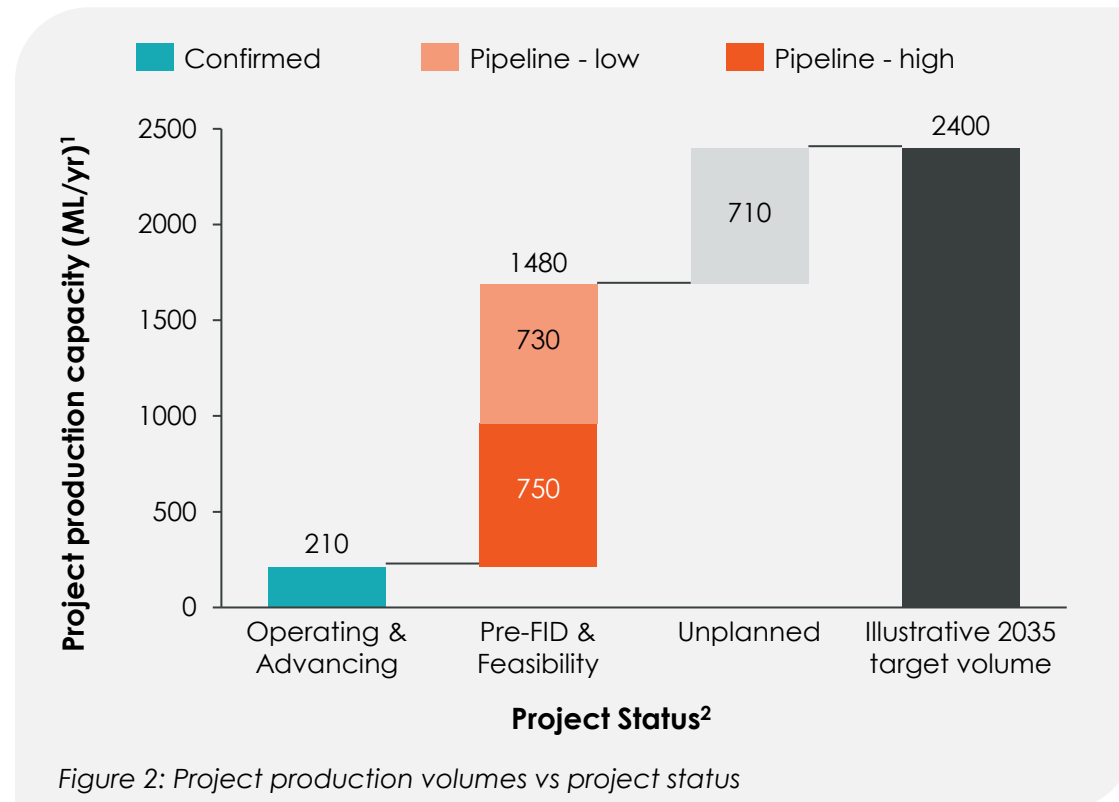


Figure 1: Australian liquid fuel considerations

# The right size for a domestic industry is an open question

To determine the optimal size of industry in Australia, several considerations will need to be weighed. These include targeting a scale that's deliverable on the current project pipeline, with a scale large enough to constitute a meaningful sovereign floor and to stand up certification, supply chains and skills. What that right size is remains an open question. To test what building towards it would take, this report uses an illustrative volume of 2,400 ML/yr. This volume draws on international examples of blending rates (10% SAF, 5% renewable diesel) and is a stretch case for the current pipeline. It offers a modest sovereign floor. However, it is not itself a claim about what the right size is.



Notes: 1.) Target of ~2,400 ML/yr (2.4 BL/yr) assumes a 10% SAF and 5% renewable diesel blend on current fuel volumes (Refined Ambitions, 2025). 2.) Pipeline is publicly announced projects at July 2026: confirmed ~210 ML (operating/advancing to FID); pipeline ~1,480 ML (pre-FID, requiring FID, split high ~750 / low ~730 ML); unplanned ~710 ML (no project yet). BP Kwinana (580 ML) paused, not cancelled, excluded. Volumes are nameplate capacity. 3.) Decarbonisation ~6 Mt CO<sub>2</sub>-e/yr (~4% of liquid fuel emissions; lifecycle basis — combustion still emits CO<sub>2</sub>). 4.) Fuel security ~7% of imports (2040) reflect the ~2.4 BL Activation state (Rennie/CSIRO, 2025). 5.) ~\$15 bn feedstock opportunity is a 2050 whole-of-industry figure (Refined Ambitions); Activation accesses a share. Figures indicative, mid-2026 AUD.

- Australia's current announced pipeline is ~2,000 ML/yr across roughly 10 projects.
- An illustrative volumetric mandate (10% SAF and 5% RD) draws on international examples to estimate demand
- 2,400 ML of production volume would deliver approximately 4% of Australia's current transport emissions abatement and, if projected forward to 2050, approximately 8% of residual fuel demand.
- This would require roughly 5–12 plants operating by 2035. That's a small slice of what's possible long-term with Australia's full biogenic feedstock base theoretically supporting ~65 plants by 2045.
- Only ~210 ML of production is near-certain today. The remaining ~1,480 ML sits at pre-FID and is struggling to convert to output without the policy certainty and price support that make FID bankable.

2

**What would a successful  
industry look like?**

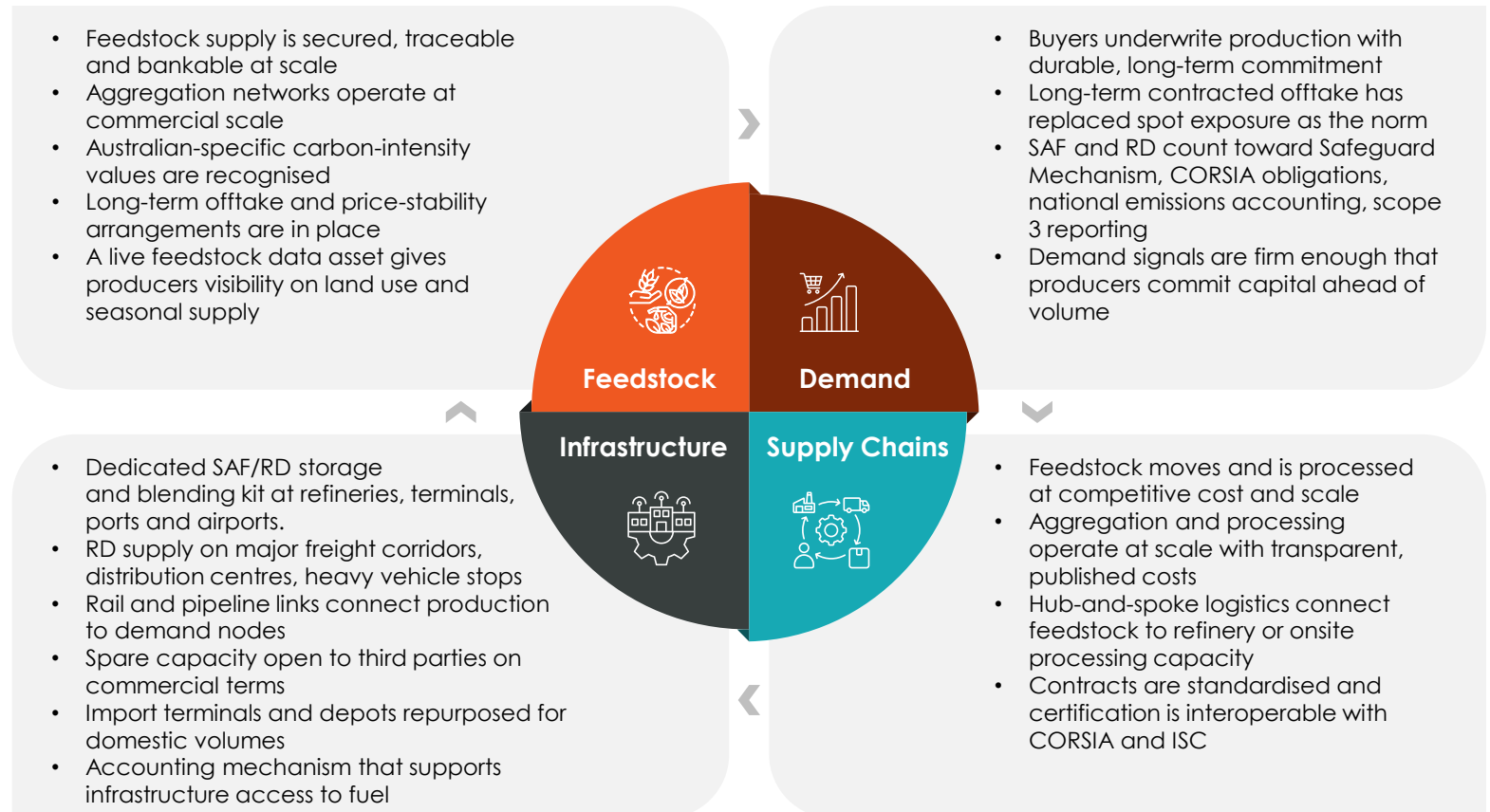
# A successful industry has four physical and market characteristics in place: feedstock, demand, supply chains and infrastructure

Defining what good looks like for each characteristic reveals the gaps that must close next.

Feedstock, demand, supply chains, and infrastructure are largely interdependent. Secured feedstock has no value without demand to pull it through; demand cannot be met without supply chains to move and process it; and neither functions without shared blending, storage, and distribution infrastructure. The central question is how much of this the market can deliver on its own, and where it may be strategic for government to close the gap.

Durable demand gives feedstock suppliers and producers the confidence to invest and to bring delivered costs down the cost curve as far as the feedstock base allows. Open-access infrastructure and rail and pipeline links reduce cost and risk across every project. The industry therefore scales fastest where all four are advanced together rather than sequentially, because each element removes a constraint on the others.

Industry is best placed to secure feedstock, build supply chains, and commit capital; government is needed where the market cannot move alone – for example, in accepting the price risk of long-term offtake of domestic production priced well above the global import price.



# National feedstock volumes look sufficient in aggregate, but project-level access depends on location, aggregation, and price competition against export parity

## Feedstock supply chain

National biogenic supply is estimated to convert to roughly 7,000 ML of fuel by 2030, rising toward 13,000 ML by 2050 (CSIRO). What a production facility can actually secure depends on where the feedstock sits, whether it can be aggregated, and the price at which it can be pulled away from existing uses.

Most suitable feedstock – used cooking oil (UCO), tallow, and oilseeds – is fragmented across many small sources or already exported. New domestic demand induces marginal supply that is further from existing collection and processing infrastructure, raising delivered cost and counterparty risk. Aggregation is thin, collection networks are immature, and much feedstock carries an existing use that must be displaced.

Because these feedstocks trade internationally, export parity sets an effective price floor. Domestic demand is absorbed comfortably up to a point; beyond it, a project must out-bid export markets and feedstock cost rises toward opportunity-cost levels. The binding question for any single project is therefore not whether national volume exists, but whether it can secure aggregated, appropriately located supply at a price its economics can bear.

Queensland sugarcane is the clearest example: an established feedstock base, existing aggregation, and a diversification pathway for a region facing transition. Co-located AtJ and HEFA production there could anchor domestic supply into nearby aviation and defence demand. But there are significant existing barriers for this transition to occur requiring a coordinated effort between three levels of government and the supply chain.

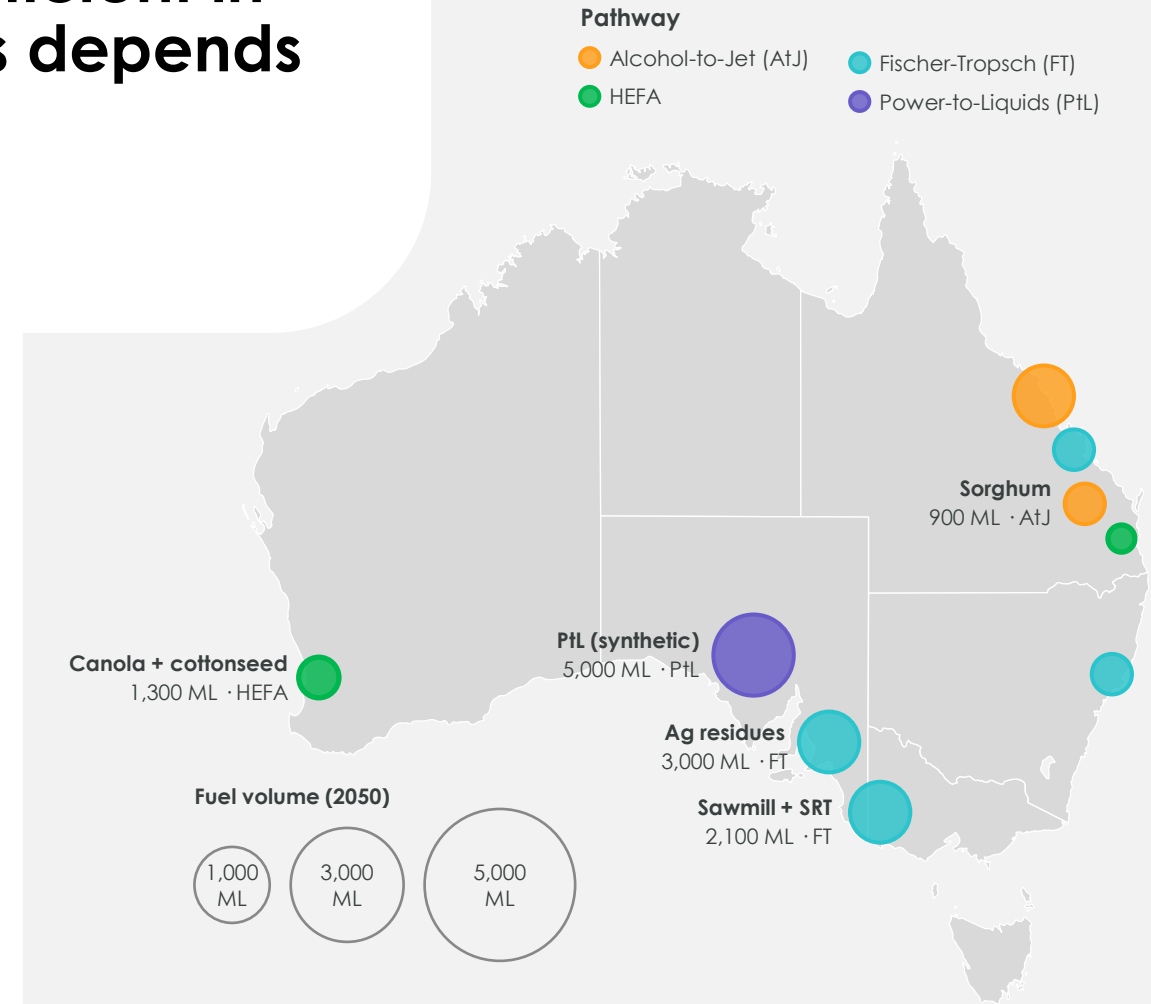


Figure 4: Indicative geographic distribution of 2050 domestic LCLF production (primary processing capacity), by feedstock and pathway, reaching 12,800 ML feedstock plus 5,000 ML PtL

Source: Indicative only. Plant locations reflect feedstock geography, not committed siting — actual facilities may locate near demand, port, or blending infrastructure instead. Circle size denotes 2050 fuel volume by feedstock/pathway combination (CSIRO LCLF Opportunities report; ~200 ML per plant assumed). State allocations are firm for sugarcane (~95% QLD, CSIRO) and canola (WA 44% / NSW 28% / Vic 21% / SA 7%, ABS Agricultural Commodities 2024-25); allocations for agricultural residues, sawmill residues, municipal solid waste, and tallow/UCO are directional, based on known production geography (cropping belt, Green Triangle/Tasmania forestry, major cities, abattoir locations) rather than firm plant-level data. For another source of information on feedstocks, see GrainCorp's From [Paddock to Plane: Feedstock Whitepaper](#)

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**What are the barriers to investment?**

# Along the LCLF value chain, industry identified barriers that require intervention to allow investment, production and purchase to continue

## Barriers to LCLF industry development raised by industry stakeholders

| Ranked impact barrier             | Key insights                                                                                                                                                                                                                                                                                                                 | What we heard from industry                                                                                                     |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 1 <b>Economic competitiveness</b> | <ul style="list-style-type: none"> <li>LCLF does and will continue to compete with cheaper offset pathways</li> <li>The price gap is too big for the market to close on its own</li> <li>Unserved buyers expect \$5-100m/yr in added abatement cost by 2035</li> </ul>                                                       | <p>“</p> <p>The price premium is huge and it will only stack up over the long term</p>                                          |
| 2 <b>Policy uncertainty</b>       | <ul style="list-style-type: none"> <li>The binding constraint is policy durability, not the choice of instrument</li> <li>Three live uncertainties: demand-side measure, GO / CI methodology, Cleaner Fuels Program</li> <li>The long-term investment requires policy investors can rely on</li> </ul>                       | <p>“</p> <p>The swing of the pendulum is really unhelpful. This is a marathon and government policy can't be start-stop.</p>    |
| 3 <b>Demand side appetite</b>     | <ul style="list-style-type: none"> <li>Buyers and producers are planning on relying on different offtake expectations</li> <li>Price tolerance of buyers sits mostly around <math>\leq 17c/L</math></li> <li>Demand-appetite issue is fundamentally a risk-allocation problem</li> </ul>                                     | <p>“</p> <p>We'd only enter into the long term if the price is acceptable, traditionally we agree two years and no more.</p>    |
| 4 <b>Infrastructure access</b>    | <ul style="list-style-type: none"> <li>Blending capacity is limited and has no obvious owner</li> <li>Airport distribution is the one genuine physical constraint</li> <li>Reliable RD supply through major freight corridors, metropolitan and regional distribution centres and heavy vehicle stops is critical</li> </ul> | <p>“</p> <p>The barriers are tankage, blending and the fuel network; there is work to solve from blending through to plane.</p> |
| 5 <b>Regulatory misalignment</b>  | <ul style="list-style-type: none"> <li>A single project may need to satisfy various certification schemes at once, leading to multiplication of audit burden</li> <li>How to measure a fuel's carbon footprint has not been settled and that number decides both eligibility and price</li> </ul>                            | <p>“</p> <p>The biggest barrier is the PGO system; interoperability takes too long and the scheme stops at the border.</p>      |

# Investors are asking for policy support that provides the certainty needed for projects to reach FID. Fuel buyers want government to set the demand signal, not wait for the market to form one

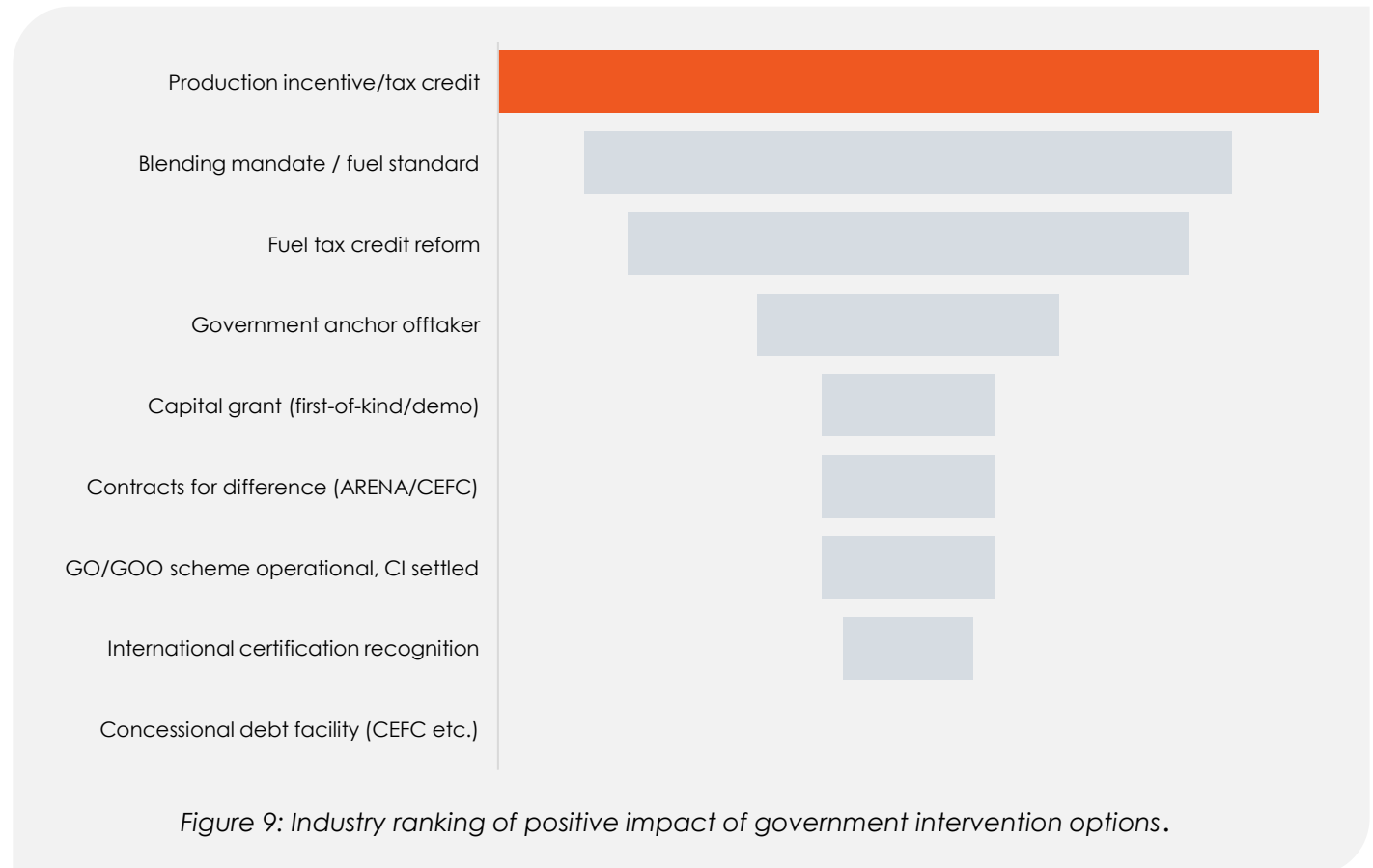
## Policy uncertainty

The evidence indicates that a binding constraint is durability and predictability of the operating and policy framework. A project financed over twenty years requires confidence that the conditions on which its revenue depends will persist across that period and across changes of government.

Three sources of uncertainty are live:

- The Australian Government has begun consultation on a demand-side measure.
- The Guarantee of Origin scheme remains in design, with carbon intensity methodology not yet settled.
- The Cleaner Fuels Program is in development.

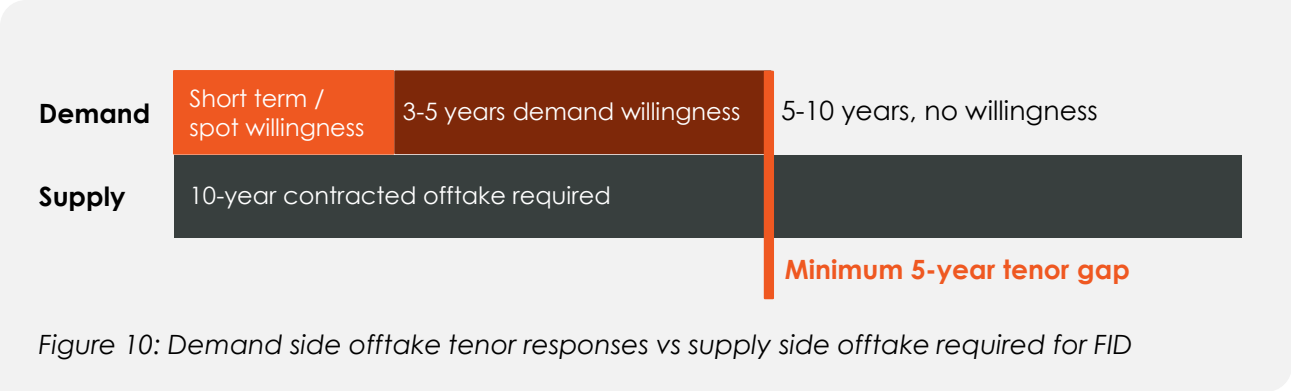
Each is a reason for a developer or investor to wait. Committing ahead of settled parameters risks building an asset that does not qualify under the eventual framework.



# Expressed interest in LCLF is not the same as a signed offtake.

## Volume, price tolerance and contract duration convert interest into bankable demand

### Demand-side appetite



Demand-side buyers are only willing to commit to price and volume over the horizon they can forecast their own cost exposure, which for most of industry sits well inside five years. Producers need revenue certainty over the full debt amortisation period, typically ten years, because that is what lenders require to underwrite the capital stack.<sup>1</sup>

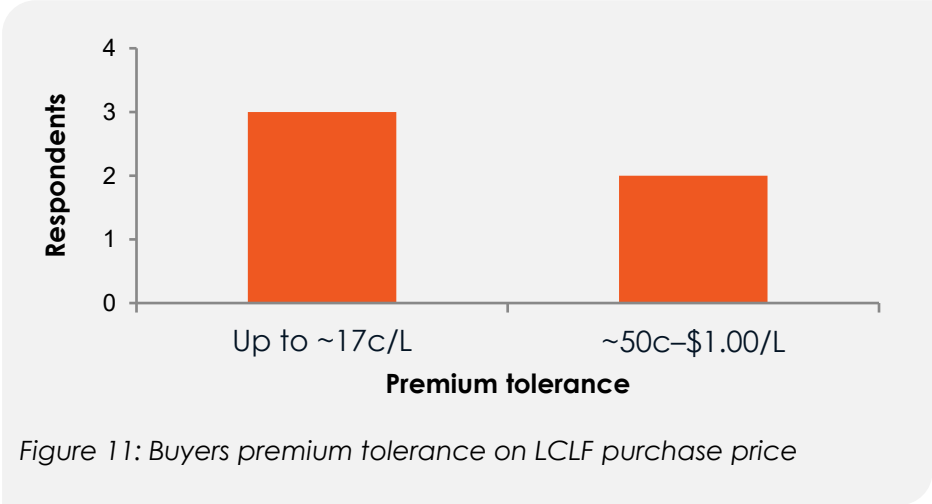
This tenor mismatch is an implication of the core issue: allocation of project risk. Project finance requires sufficient risk confidence, and the industry is using offtake agreements as the avenue to secure confidence.

To achieve progress there is work required to find the point at which that confidence is achieved through a combination of government and industry support.

Price tolerance compounds the tenor gap issue.

Buyers have indicated they will pay no more than ~17c/L above the fossil comparator, a minority tolerate ~50c–\$1.00/L, and none indicated any band above \$1.00/L, all of which are below the premium the modelling projects.

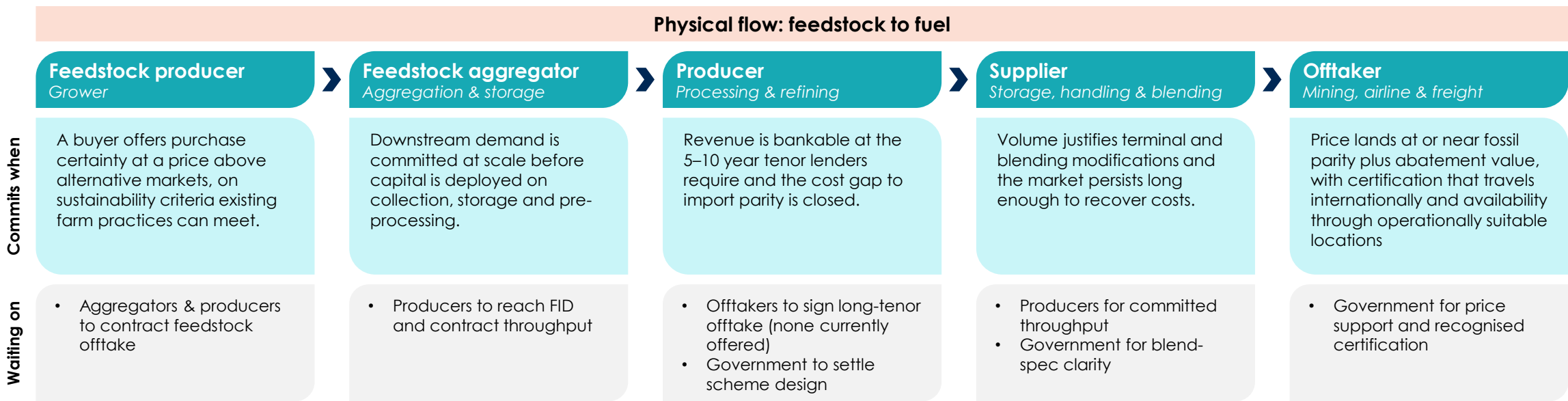
Demand certainty is the dominant theme in intervention. Current demand is insufficient to support project finance because lenders require contracted long-term revenues before reaching financial close.



Source: CLC Commitments Register, Sections B3 & B4.  
<sup>1</sup> Freight operators frequently provide services under customer contracts with defined fuel adjustment mechanisms, service levels, and competitive pricing. Adoption of LCLFs at scale will depend on customer willingness to recognise and share the premium, certainty that emissions attributes can be allocated to the relevant customer, and contract terms that do not transfer unmanageable price risk to the freight operator.

# Each segment of the value chain commits when its own enabling conditions and commercial test is met

Bottlenecks and dependencies along the value chain require collaboration to overcome.



The commitment cascade runs the other way: each actor is waiting on the one downstream of it

**Financier**

Funds contracted cashflow, not objectives. Capital arrives last, once a signed offtake and durable policy both exist.

**Waiting on** the offtaker and government, the final two links

**Government**

Every chain of dependencies above ends at a decision only government can make: price support, scheme design, blend specifications, certification recognition.

**Waiting on** evidence that intervention is in the best interests of Australians and is minimum-sufficient to stand up the industry.

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# What is the path forward?

## The Roadmap

# Activities along the report are guided by three principles: strategic anchoring, joint commitment, and supply chain derisking

## Report principles



### Activities are anchored to strategic objectives

- Activities are aligned to decarbonisation, fuel security and economic development.
- Future asks of government or industry are transparent in the objective it serves, so intervention can be sized to what the objective is worth.
- The premium is deliberate and transparent.



### Government and industry commit together

- The value chain is a cascade of actors each waiting on the one downstream.
- Breaking the deadlock requires reciprocal commitment.
- Industry converts stated intent into contracted volumes as government settles scheme design and price support.



### Supply chain derisk

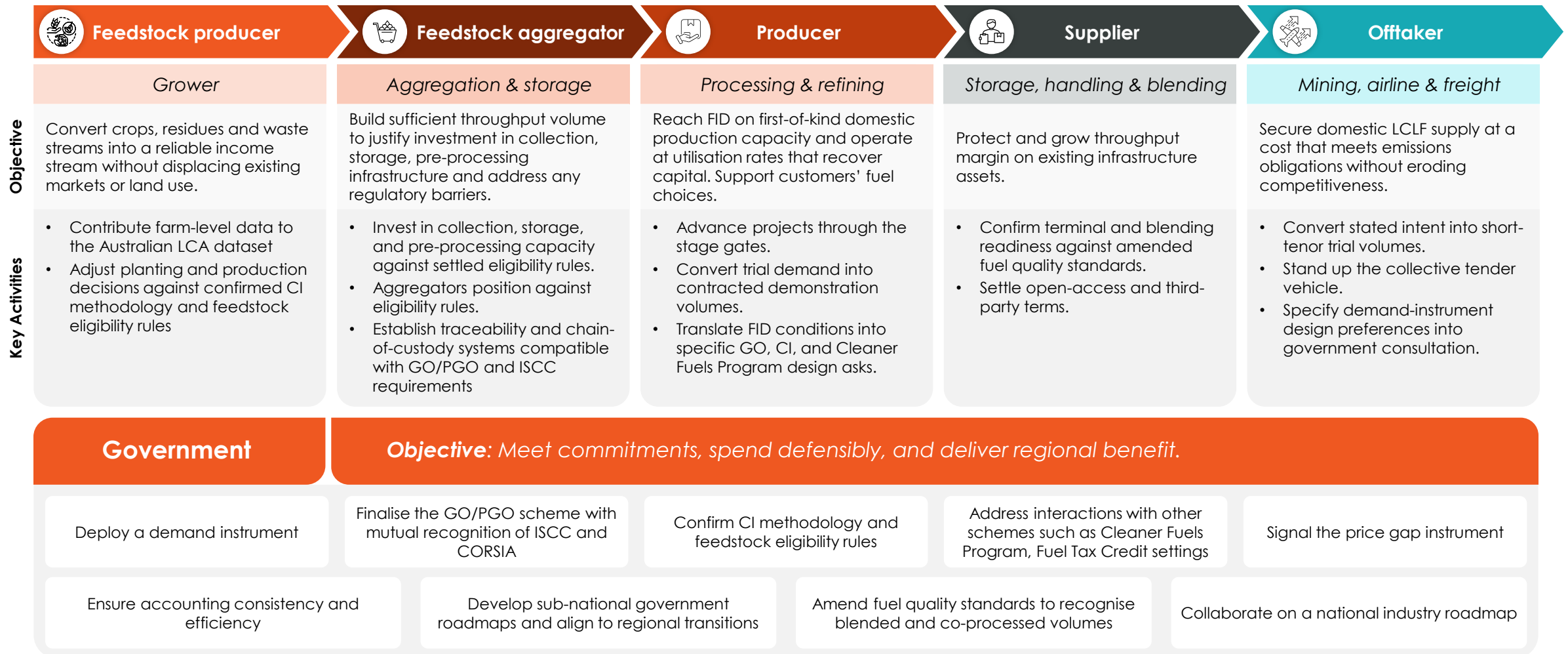
- Each segment of the value chain commits when its own enabling conditions are met.
- Activities are sequenced to derisk each segment in turn: feedstock aggregation, production FID, blending and distribution, offtake.
- Support is targeted where risk actually binds, keeping intervention to the minimum sufficient.

# Government and industry can work together on key activities that support reaching Activation by 2035

## Potential activities for consideration and alignment between government and industry

|            | Foundations (2026-2028)<br><i>Objective: settle the policy and regulatory base, develop the feedstock supply chain and support FID.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Activation (2028-2035)<br><i>Objective: Annual domestic production, reaching FID and commissioning. This report uses ~2,400 ML/yr as an illustrative volume</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Scale (2035+)<br><i>Objective: capability sized to the no-alternative share of residual demand, with export and PtL optionality preserved.</i>                                                                                                                                                                                                                                      |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Industry   | <ul style="list-style-type: none"> <li>Feedstock aggregators: invest in collection, storage and pre-processing against settled eligibility rules</li> <li>Producers and researchers: build the Australian LCA dataset that certification and CI calculation require</li> <li>Fuel suppliers: confirm terminal and blending readiness against amended standards</li> <li>Offtakers: establish trial and demonstration volumes at short tenor, converting stated intent into demand; verify equipment compatibility and operational performance</li> <li>All: Increase community awareness on the objectives and benefits of a LCLF market in Australia.</li> </ul>                                                                                                                                              | <ul style="list-style-type: none"> <li>Feedstock suppliers: scale contracted supply against multi-year offtake from operating facilities</li> <li>Producers: take committed and conditional projects through FEED to FID against the settled regulatory base</li> <li>Offtakers: convert trial volumes to medium-tenor offtake as price support narrows the gap; aggregate procurement where individual tenor capacity stays short (where compliant with competition law)</li> <li>Financiers: fund contracted cashflow through CfD-backed structures; pursue taxonomy classification for production facilities to unlock sustainable finance flows</li> </ul> | <ul style="list-style-type: none"> <li>Producers: expand within the hard-to-abate envelope as electrification boundaries firm up; the biogenic ceiling (~12,800 ML/yr) remains headroom</li> <li>Exporters: retain the feedstock export position where domestic conversion economics have not improved</li> <li>All: develop PtL where renewable energy economics permit</li> </ul> |
| Government | <ul style="list-style-type: none"> <li>Deploy a demand instrument</li> <li>Finalise the Guarantee of Origin (GO)/Product GO scheme with mutual recognition of ISCC and CORSIA</li> <li>Ensure accounting consistency and efficiency.</li> <li>Develop sub-national government roadmaps and align to regional transitions</li> <li>Signal any instrument to manage price gap to imported alternatives</li> <li>Amend fuel quality standards to recognise blended and co-processed volumes</li> <li>Confirm CI methodology and feedstock eligibility rules, giving growers and aggregators the planning certainty to change practice</li> <li>Consider interaction with Cleaner Fuels Program, Fuel Tax Credit settings, GO arrangements and fuel quality standards for any unintended disincentives.</li> </ul> | <ul style="list-style-type: none"> <li>Deploy a production incentive, closing the gap to import parity for facilities serving hard-to-abate demand</li> <li>Structure CfD or revenue-floor support through ARENA/CEFC where the production incentive alone does not deliver bankable cashflow</li> <li>Provide concessional debt and first-of-kind capital grants where infrastructure access genuinely binds</li> </ul>                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Recalibrate support against the reviewed evidence. Taper where costs have narrowed, state recurring cost openly where they have not</li> <li>Maintain certification interoperability as international schemes evolve</li> <li>Count territorial abatement against the Safeguard Mechanism and NDC pathway</li> </ul>                         |

# Foundations: Key activities along the supply chain to be delivered over the next 24 months



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**Contributing Industry Participants**

Many organisations contributed to the development of this report. Some of these include:



ASFI



Brisbane Airport



CANEGROWERS



Cathay Pacific Airways



Viva Energy

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# Appendices

# Appendix A: Commitments register – barriers, interventions and supply-side

Economic competitiveness and policy uncertainty dominate; respondents want direct production support, not market mechanisms.

| Barrier significance (count of ratings) |          |             |          |                 |    |
|-----------------------------------------|----------|-------------|----------|-----------------|----|
| Barrier                                 | Critical | Significant | Moderate | Not Significant | n  |
| Economic competitiveness                | 7        | 3           | 0        | 1               | 11 |
| Policy uncertainty                      | 6        | 3           | 1        | 1               | 11 |
| Offtake / demand formation              | 3        | 5           | 0        | 2               | 10 |
| Regulatory misalignment                 | 2        | 2           | 6        | 0               | 10 |
| Infrastructure access                   | 2        | 2           | 5        | 2               | 11 |

| Government intervention priority            |             |
|---------------------------------------------|-------------|
| Intervention                                | No. 1 votes |
| Production incentive / tax credit           | 5           |
| Blending mandate / fuel standard            | 4           |
| Fuel tax credit reform                      | 2           |
| Government anchor offtaker                  | 2           |
| Capital grant (first-of-kind)               | 1           |
| CfD / GO scheme / certification recognition | 0           |



Cost of no domestic industry by 2035:

Higher abatement cost (4), decarbonisation gap (3), regulatory exposure (2), no material consequence (2); quantified impacts range from <\$5m to >\$100m/yr.



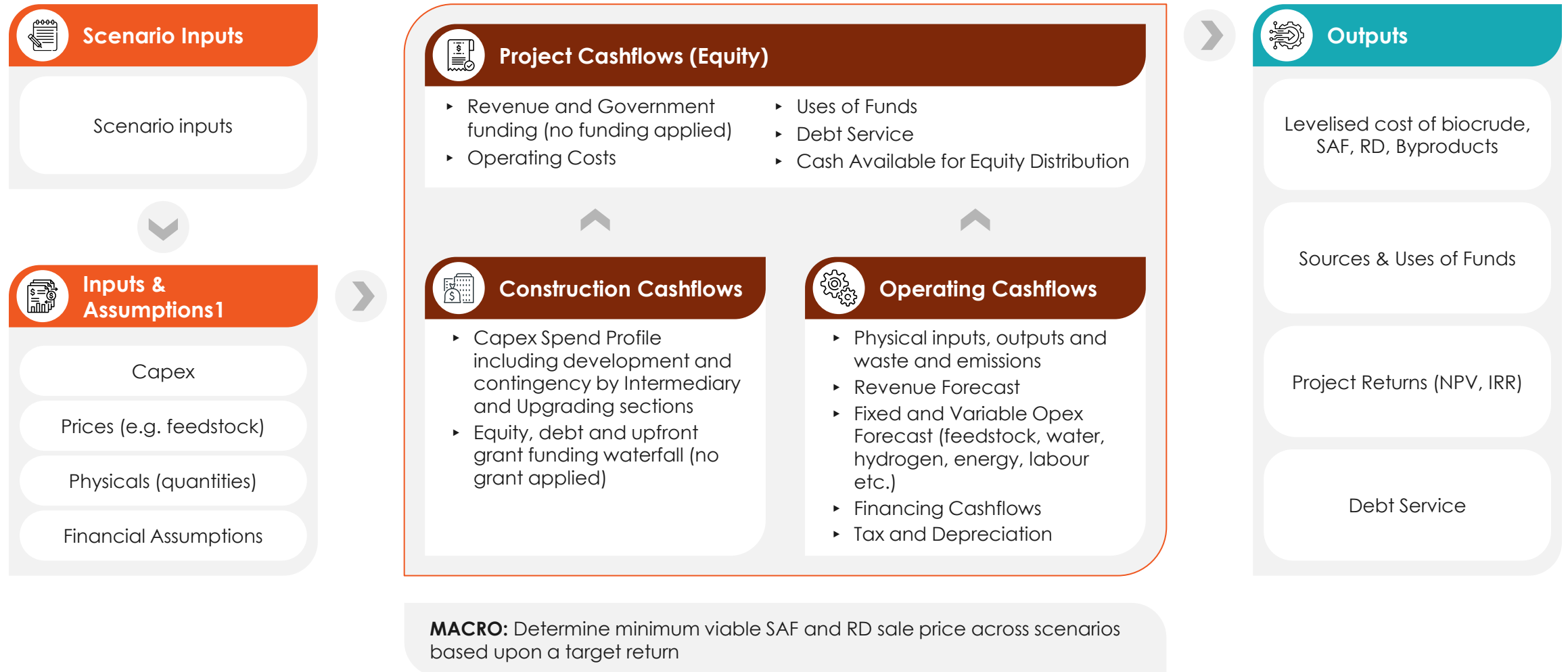
Supply-side (n=1, indicative only):

One pre-FEED HEFA / HVO project, ~770 ML/yr, QLD, target FID ~2027, ~10-year offtake required; single binding constraint = policy or price support.

Direct production support (incentive or tax credit) and a blending mandate dominate; market mechanisms attract no first-place votes.

Source: CLC LCLF Commitments Register (2026), n=12; aggregated and de-identified. Supply-side below the n≥3 threshold, reported qualitatively without attribution.

# Appendix B: Rennie's LCLF financial model estimates the cost of production of SAF and RD across 20 feedstock and fuel combinations



Source: 1. Inputs and Assumptions are derived from the CEFC Refined Ambitions (2025) [appendices](#).