

Green Fuels Accelerator (GFA)

Supporting commercialisation of low carbon liquid fuel projects in Australia



The Green Fuels Accelerator (GFA) aims to help Australia realise the opportunity to achieve low carbon fuel security



The market opportunity is enormous.

Sustainable Aviation Fuel alone could be a US\$544 billion annual market by 2050. Asia will be the demand centre.



Australia is uniquely positioned to lead

given abundant land, our domestic fuel security needs, proximity to Asian markets, and a leading FDI environment.



Australia has a pipeline of promising projects.

Getting First of a Kind (FOAK) projects to financial close is what determines whether Australia captures this opportunity or cedes it.

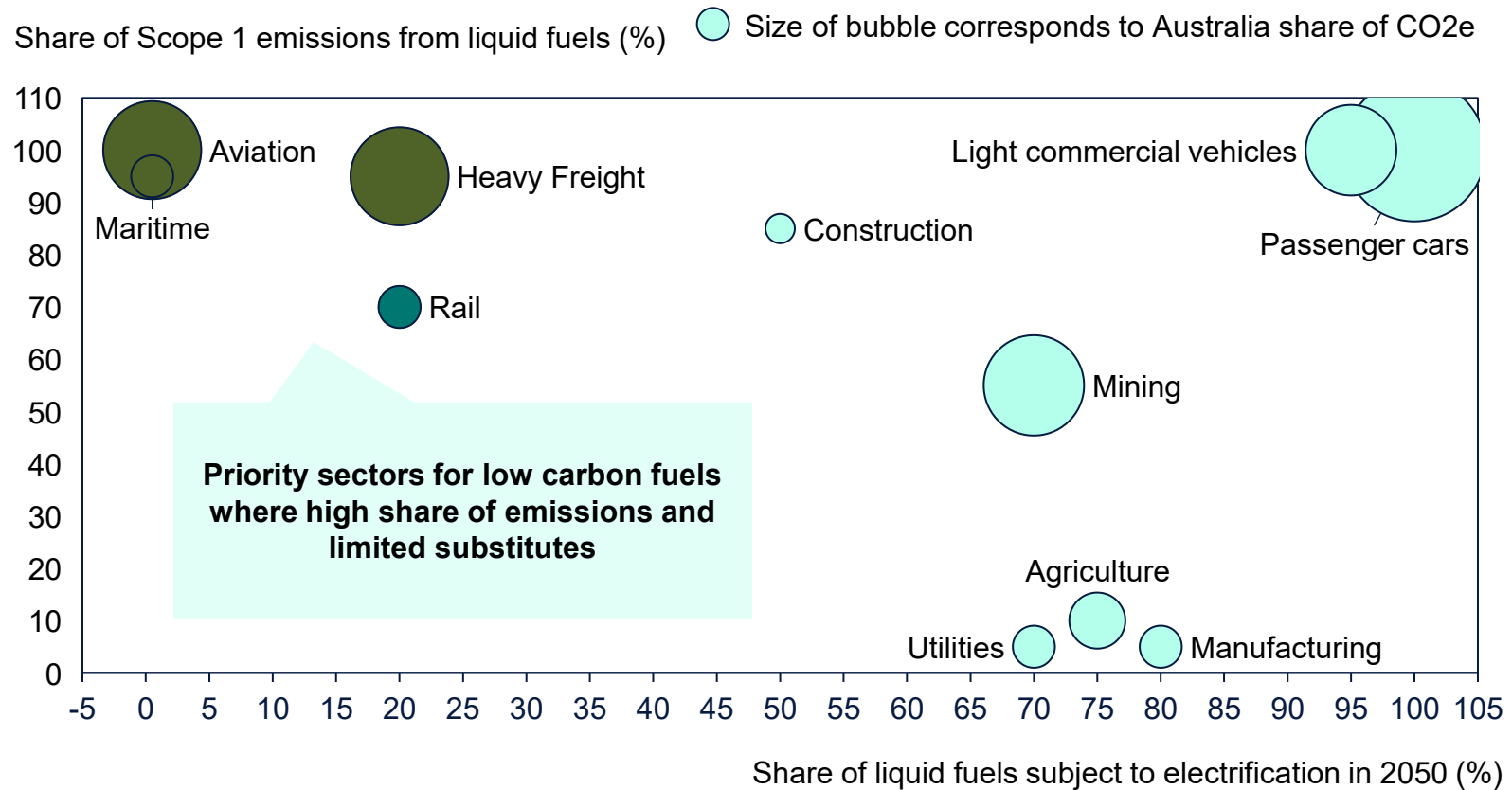


The Green Fuels Accelerator (GFA) aims to unlock Australia's low carbon fuel opportunity.

The GFA will provide targeted commercialisation support to high potential Australian low carbon liquid fuel projects to help their investment readiness.

Low carbon liquid fuels (LCLF) provide a scalable alternative to fossil fuels in sectors where electrification is challenging



Sectors based on importance of liquid fuels for emissions and potential substitutes



Low-carbon liquid fuels (LCLF) such as sustainable biofuels and synthetic e-fuels, are crucial for decarbonisation because they provide a scalable alternative to fossil fuels in sectors where electrification is challenging (e.g., aviation, maritime transport, heavy-duty road transport, heavy industry). These fuels help reduce lifecycle greenhouse gas (GHG) emissions while leveraging existing fuel infrastructure, making them a practical transition solution.

These impacted sectors represent over **10%** of global GDP and are large markets – for example, sustainable aviation fuel alone could be **US\$544b** in 2050.

Australia is ideally positioned to be a global leader in low carbon liquid fuels production

 Factor	 Description
Abundant land	<ul style="list-style-type: none">• Australia could produce ~14,000 ML (megalitres) of aviation fuel—about 70% of forecast 2050 demand—using only ~0.5% of national land• In particular, Australia has over 300 million hectares of marginal land
Efficient logistics	<ul style="list-style-type: none">• Almost all jet fuel is imported with ships returning empty to refineries in (mostly) Asia, so the means of export are already in place• Close proximity to key Asian markets (supported by free trade deals)
Large domestic market	<ul style="list-style-type: none">• Australia is a major user of liquid fuels, consuming over 56 BL annually. Liquid fuels are central to the energy demands of 11 major sectors of the Australian economy. By 2050, Australia’s domestic LCLF is estimated to be A\$36 billion annually (in current dollars)• Fuel has become a security concern with over 80% of liquid fuels imported and only 30 days of fuel reserves. The Australian Defence Force has already started SAF pilots, certification programs and industry partnerships as part of its Future Energy Strategy (2024)
Supportive government policy	<ul style="list-style-type: none">• Australia has allocated A\$250 million to support pre-commercial innovation, demonstration and deployment of LCLF, plus there is the ongoing development of SAF certification and guarantee of origin standards, and clean fuel standards. The Australian Government has also announced a further \$1.1 billion to support the production of low carbon liquid fuels (LCLF), including possible production incentives and grants
Attractive FDI environment	<ul style="list-style-type: none">• Australia ranks in the top 10 on FDI attractiveness



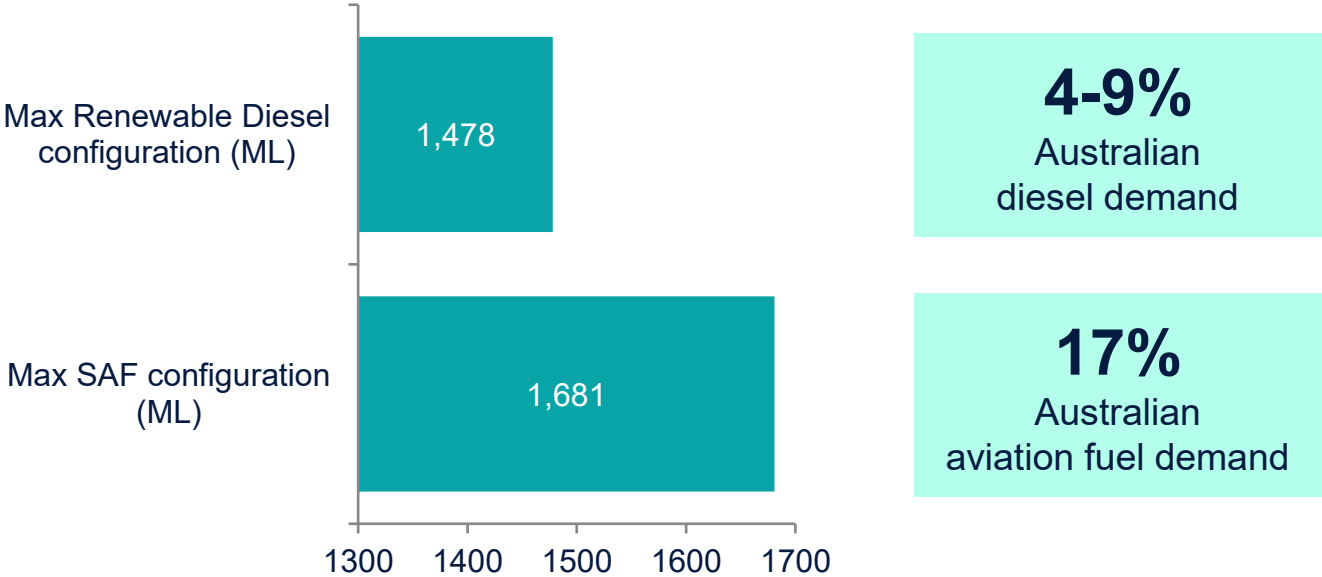
Australia has a pipeline of promising LCLF projects currently in development

LCLF Project Pipeline in Australia

Stage	Projects	Capex	Emissions (Mt CO2-e)
Announced	2	\$1.1B	0.2
Pre-FEED	6	\$8.3B	3.1
FEED	4	\$9.9B	1.9
Total	12	\$19.3B	5.2

Potential output from this pipeline of projects

If all SAF & renewable diesel capacity were configured to produce a single product:



Note: 1. 4% refers to Australia's full diesel demand. 9% refers to priority diesel demand in the mining, heavy freight, agriculture and utilities industries. Capacity figures represent announced project targets, not committed production. Actual output will depend on project progression to FID and final configuration decisions. SAF and renewable diesel facilities can typically flex between product types depending on market conditions.





Source: Clean Deal Monitor (produced by Cyan Ventures and Mission Possible Partnership)



There are some key gaps in adoption readiness for low carbon liquid fuels in Australia

US Department of Energy Adoption Readiness Level Framework (April 2025) | Risk assessment across 17 dimensions

● High Risk ● Medium Risk ● Low Risk

Category	Dimension	Risk	Category	Dimension	Risk
 A. Value proposition	Delivered Cost	High	 C. Resource maturity	Capital Flow	High
	Functional Performance	Low		Supply Chain Maturity	High
	Ease of Use / Complexity	Medium		Workforce & Skills	Medium
 B. Market acceptance	Demand Maturity / Market Openness	High	 D. Licence to operate	Infrastructure	Medium
	Market Size	Low		Regulatory Environment	High
	Downstream Value Chain	High		Community & Stakeholder Acceptance	Medium
	Customer Awareness & Education	Medium		Environmental Impact & Sustainability	Medium
	Competition & Substitutes	Medium		Trade & Geopolitical Factors	Medium
			Equity & Justice Considerations	Low	



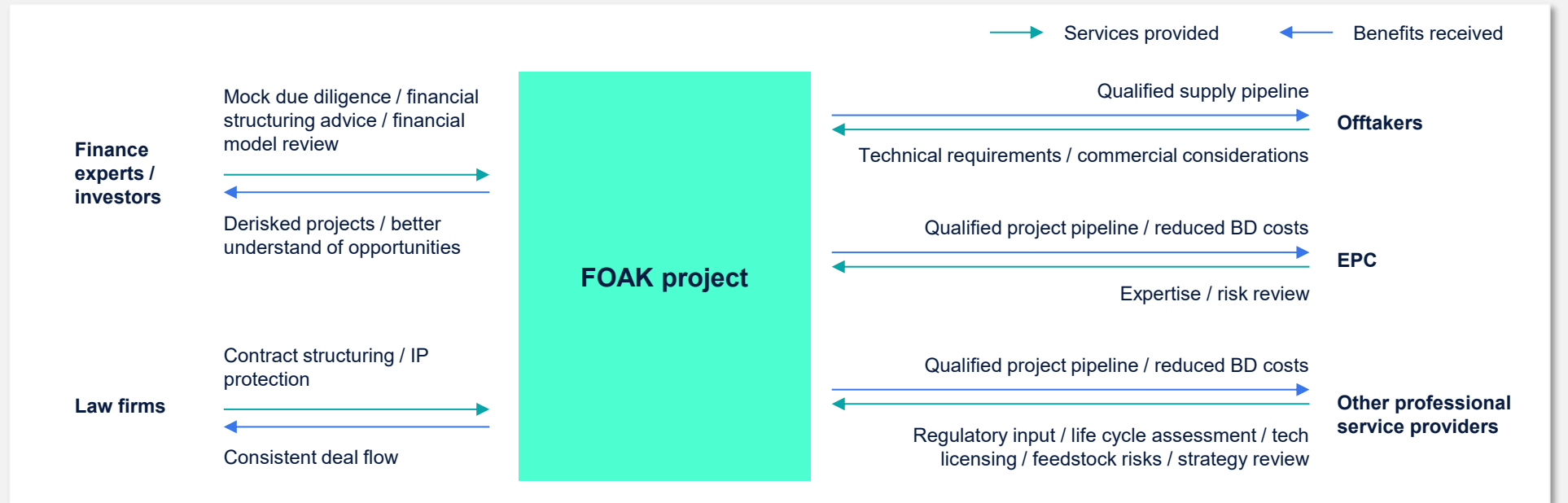
The Green Fuels Accelerator will provide targeted commercialisation support to high potential low carbon liquid fuel projects in Australia

The challenge...

The absence of any reference project creates a genuine first-mover problem. Debt markets can't price the risk without comparables, and equity sponsors with LCLF experience now have better risk-adjusted returns in the US under the IRA.

The opportunity...

Pilot an approach (focused on low carbon liquid fuels) that will provide specific commercialisation support to promising clean industry development projects in Australia, including technical support, regulatory guidance, financing / offtake strategy and general strategy assistance; and link projects to key partners such as investors and offtakers to help them reach financial close faster and with higher probability than otherwise



The seven selected projects span conversion technologies across Queensland, New South Wales, and Western Australia



Company	Region	Overview
Licella	Queensland	Integrated biorefinery using Cat-HTR™ hydrothermal liquefaction (HTL) to convert non-food biomass into bio-oil, for low-carbon liquid fuels including SAF
Renergi	Western Australia	Grinding pyrolysis converting waste streams into bio-oil and biochar
Renewable Developments Australia (RDA)	Queensland	Integrated ethanol to jet facility using on site sugarcane feedstock
Wagner Sustainable Fuels	Queensland	SAF blending terminal and large-scale refinery converting waste feedstocks
Mercurius Biorefining	Queensland	REACH™ conversion of lignocellulosic biomass to drop in SAF, renewable diesel and sustainable marine fuel
Wildfire Energy	Queensland	Moving injection horizontal gasification to produce bio methanol and SAF
Ethtec	NSW	cellulosic ethanol pilot converting agricultural and forestry residues

We will be delivering this project with funding from ARENA and support from various industry partners



...and various other leading companies and industry experts.