17 July 2024

The Director
Gas & Liquid Fuels Division
Liquid Fuels Branch
Liquid Fuels Transition Section
51 Allara Street
CANBERRA ACT 2601

Via email: GLFLFBLiquidFuelsTransition@dcceew.gov.au

Dear Sir/Madam,

Response to Low Carbon Liquid Fuels Consultation Paper (June 2024)

Reference is made to your invitation to provide comment on the Department's Consultation Paper entitled: *Low Carbon Liquid Fuels – A future Made in Australia: Unlocking Australia's low carbon liquid fuel opportunity*.

Below please find ACAPMA's submission to this consultation.

Given the scope of interest of ACAPMA's members (i.e. fuel transport, fuel wholesale and fuel retail), our response to the consultation paper has been confined to issues associated with the transport, storage and retailing of low carbon liquid fuels in Australia.

1. About ACAPMA

The Australasian Convenience and Petroleum Marketers Association (ACAPMA) is the national peak body representing the interests of the petroleum distribution/wholesaling and the petrol-convenience retail industry. These two industry sectors generated annual revenues of around $102B in 2023 and employed an estimated 51,500 Australians, working in around 4500 businesses.

ACAPMA is first and foremost an employer organisation that is formally recognised under Australian law as the *industrial advocate* for fuel marketing and fuel distribution businesses. First established in 1976, the Association started operations as the Australian Petroleum Agents and Distributors Association (APADA) and subsequently changed its name to ACAPMA in 2007. The name change was accompanied by a change in the Association's Constitution to incorporate national representation of fuel retailers.

Today, the Association directly represents 95% of fuel distributors/wholesalers in the country and directly and indirectly (via franchisees and distributor-owned retailers) around 5700 of the 8027 service stations (i.e. 71%) operating in Australia.

The scope of ACAPMA's membership extends from the 'refinery gate' through to the forecourt of Australia's national network of service stations and petrol convenience outlets – including fuel importation, fuel wholesalers, fuel distributors, fuel retailers, petroleum equipment suppliers, and petroleum service providers.

ACAPMA's member businesses range from Australian-owned subsidiaries of international companies to large Australian-owned businesses, to independently owned mid-cap Australian companies, and small *single retail site* family-owned businesses.

Given the diversity of our membership base, ACAPMA strives to assemble an aggregate *whole-of-industry* perspective on key public policy and market regulation - with a view to providing policymakers and regulators with meaningful industry insights that are directly relevant to issues under consideration.

Given the wide variance in the market propositions (and market presence) of individual market participants, ACAPMA's aggregate *whole-of-industry* perspective should not be taken as necessarily being wholly representative of the position of any individual fuel retailer.

It is therefore possible that one or more of ACAPMA's members may have an individual enterprise position that varies markedly from the one presented in this paper.

2. Guiding principles used in this submission.

While Australia's fuel distribution & wholesale businesses and Australia's fuel retail businesses are not directly *invested* in the manufacture of transport fuels (neither conventional nor future fuels), the industry recognises that it has an active role to play in supporting an orderly transition to low carbon mobility - under the umbrella of Australia's 'Net Zero 2050' aspirations.

Achievement of this orderly transition will require all stakeholders to work cooperatively on a comprehensive transition plan that supports achievement of Australia's *Net Zero* objective without creating undue economic and social harm. At a practical level, this means ensuring that Australia's net zero transition is advanced from sound engineering and economic principles.

ACAPMA's response to this Consultation Paper has been guided by key elements of the Association's Public Policy Framework (2023), as articulated in the following sub-sections.

2.1 Low carbon policy (and regulation) must focus on emissions performance – as opposed to picking technology 'winners'

ACAPMA notes that there are numerous examples (both national and international) of governments imposing 'green' fuel mandates as a means of achieving environmental goals,

only to later repeal these measures on the grounds of the creation of significant adverse economic and social consequences. National and International experience with the introduction of mandates of first-generation biofuels (in Europe, North America, and Australia) around the turn of the century is a case in point.

ACAPMA believes that all Australian Governments should avoid setting low carbon mobility policy that amounts to picking technology "winners". Such an approach not only risks unintended consequences but may also result in shutting out non "favoured" fuels and technology that may has the potential to deliver environmental improvements earlier - and at a lower overall cost to the national economy.

ACAPMA therefore opposes mandates. Mandates effectively limit the constructive competitive tension needed in a market to ensure that economies realise desired emission reductions at the least possible cost to the national economy.

2.2 Government policies targeting low carbon mobility must support an economically viable and socially just transition to Net Zero 2050.

Articulation of a policy target without due consideration of how that target can be achieved in practice is not only disingenuous - it will also likely result in unnecessary destruction of asset value and Australian businesses, with consequent adverse impacts on employment.

It therefore follows that Australia's Net Zero Policy (including the implied low carbon mobility targets) must be supported by a transition plan that is economically and technologically achievable. Wholesale reliance upon contested technological breakthroughs and blind ambition for the achievement of economic scale is not a sound basis for future achievement of Australia's Net Zero ambitions.

The transition to low carbon mobility must also take account of the likely different rates of consumer adoption of low carbon vehicles given the different socio-demographic profiles of Australian households, particularly given that the costs of adoption of low carbon mobility are significantly higher than conventional mobility.

2.3 Advanced (or early) investment in low carbon mobility infrastructure should be supported by public funding until such time as market demand supports wholesale private sector investment.

New investment in low carbon mobility infrastructure that is developed in advance of demand is typically uneconomic. It therefore follows that achievement of the public good associated with early provision of this infrastructure should be underpinned by proportionate co-investment by all Australian Governments.

Forcing private sector investment ahead of demand for low carbon mobility technologies will undoubtedly result in Australian fuel businesses being required to offset uneconomic

investment costs by increasing the cost of conventional fuels for Australian businesses and households – an outcome that is considered economically unjust and socially inequitable.

2.4 Progress on low carbon mobility to support Net Zero 2050 should not come at the expense of Australia's national fuel security goals.

Australia's conventional fuel industry is critical to the national security of the country and will likely remain so until the majority of Australia's on-road and off-road vehicles transition to low carbon technologies and fuels.

Given the growing significance of geopolitical issues, government policy must balance required investment in low carbon mobility with the equally important requirement to continue investment in improving Australia's liquid fuel security. Such a balance requires due consideration of the scarcity of funding for new investment (in either conventional or future fuel infrastructure) and the likely reduced timeframes for realisation of a commercial return from new investment in conventional fuel import, storage, transport, and retail infrastructure.

2.5 Development of a low carbon mobility market (including low carbon liquid fuels) should ensure competition neutrality.

Mobility costs are a significant cost input to the Australian economy. Traditionally, successive Australian governments have sought to ensure that these costs remain reasonable and affordable by ensuring that there is a strong competitive tension in the Australian fuel wholesale and fuel retail markets. These efforts extend to the provision of special powers of oversight of the fuel retail industry by the ACCC, as determined by successive Federal Treasurer's over the past two decades.

It therefore follows that, as all Australian Governments seek to promote growth of the low carbon mobility market, the design of government policies and funding programmes must avoid inadvertently ceding a concentration of market power to specific enterprises and/or organisations. This is particularly pertinent with respect to the awarding of government grants (i.e. taxpayer funds) for new low carbon mobility infrastructure or low carbon liquid fuel production plants.

3. Statement of ACAPMA's overall position on Low Carbon Liquid Fuels (LCLFs).

ACAPMA supports actions taken by all Australian Governments in respect of promoting the early market adoption of low carbon transport fuels such as renewable diesel and SAF in the near term - and synthetic diesel in the medium to long term. The principal benefit of these initiatives is that they provide an opportunity to realise GHG emission reductions from the hard to abate diesel vehicles and diesel machinery sector by utilising existing fuel supply infrastructure and existing diesel vehicles and machinery.

This support is premised on the following observations about Australia's LCLF opportunity - and the nature of incentives for their market adoption:

1. **LCLFs represent a significant abatement opportunity in the near-term.** Development of early supply of low carbon renewable diesel for the Australian diesel market presents a tangible opportunity to deliver emissions reduction from the 'hard to abate' road transport and heavy machinery industrial sectors (e.g. Mining, Agriculture, industry, and rail transport) – particularly given the forecast near zero availability of BEV and FCEV drivetrains for these applications (both on-road and off-road) in the next 5 to 10 years.

2. **LCLF's must be distinguished from first-generation biofuels (and biofuel blends).** The Association's support for low carbon liquid fuels – including renewable diesel - is premised on the firm understanding that these fuels deliver a significant reduction in GHG emissions (as compared with equivalent conventional fuel operation) AND that these fuels can readily utilise existing national fuel transport, fuel storage and fuel retailing infrastructure. That is, they do not necessitate expensive adaptation or augmentation of national fuel supply infrastructure.

   Within this context, first generation biofuels (e.g. ethanol-petrol blends) and biodiesel produced from agricultural feedstocks like Tallow are NOT considered to be low carbon liquid fuels given that the utilisation of high-volume blends of these fuels requires substantial modification of both national fuel supply infrastructure. Further, these fuels demonstrate negligible GHG emission benefits and have historically created sustainability issues (e.g. Food vs Fuel conundrum)

3. **LCLF's must deliver significant GHG reductions relative to conventional fuels.** Any new standard for low carbon fuels – including that for renewable diesel and sustainable aviation fuel – should stipulate a minimum emission reduction threshold compared with the life cycle emissions of conventional fuels.

   Within this context, ACAPMA notes that the European Union's Renewable Energy Directive II [see Directive - EU - 2023/2413 - EN - Renewable Energy Directive - EUR-Lex (europa.eu)] stipulates an emissions reduction of at least 65%. By comparison, the USA's Renewable Fuel Standard stipulates a life cycle emissions reduction of at least 20% compared with conventional fuels [see Final Renewable Fuels Standards Rule for 2023, 2024, and 2025 | US EPA)]

   Such fuels could reasonably be blended with conventional fuel initially to deliver a lesser GHG emissions benefit, with a view to a progressive increase in blend concentrations over time.

4. **The early market adoption of LCLFs should be incentivised in Australia.** Recognising the current significant cost disadvantage of renewable diesel (150% of average diesel price)

and synthetic diesel (250% of average diesel price), there will be a need to incentivise market adoption of these fuels via the simultaneous pursuit of *Market Push* policy and *Market Pull* policy mechanisms. Care should be taken with the design of Market Push (or Supply side) mechanisms to ensure that they do not distort market competition in the highly competitive national fuels market. Similarly, Market Pull (or Demand side) interventions should be targeted at the end-consumer directly – as opposed to a vicarious construct involving *downstream fuel market participants* (i.e. fuel wholesalers or fuel retailers).

5. **Imported and domestic LCLFs should be treated equally – at least in the near term.** While ACAPMA understands the Australian Government's desire to incentivise domestic production of LCLFs under the banner of the Made in Australia Program, such an approach creates two substantial issues. First, it constrains the degree to which LCLFs could be used to lower emissions from conventional fuel consumption in the near-term. Second, disproportionate financial incentives for producers potentially distorts competition in the Australian wholesale diesel market.

   ACAPMA believes that the avoidance of these two downside risks is best achieved via the application of modest production incentives that are supported by meaningful *demand side* incentives for the adoption of low carbon liquid fuels.

6. **Strategies to incentivise market adoption of SAF and renewable diesel fuels should recognise fundamental differences in market characteristics.** ACAPMA notes that the current national discussion about LCLFs has implied that the market development strategies for both sustainable aviation fuels and renewable diesel (on-road and off-road use) will likely be similar.

   It is strongly suggested that the characteristics of these two markets are dramatically different in terms of scale and market behaviours. Accordingly, ACAPMA believes that the strategies for the development of the markets for these two fuels will likely need to be differentiated.

7. **Fuel mandates are problematic. They are not suited in situations where there is significant uncertainty surrounding the future demand-supply balance.** Experience with legislated mandates, both in Australia and in overseas jurisdictions, reveals that Mandates are inflexible and often produce unintended adverse consequences (for market participants and end-consumers alike) – particularly where the future supply-demand balance in unknown. In cases where the mandate dictates market utilisation of a fuel volume that cannot be supported by supply, scarcity results and the new fuel attracts a higher cost premium than warranted by the incremental production cost. Similarly, a conservative mandate can result in discontinuous investment as demand lags supply (and consequent investment in new production capacity).

4. Specific comments (to Consultation Paper Questions).

The following comments are provided in respect of the questions posed in the Consultation Paper.

4.1 Nature of the low carbon liquid fuels opportunity.

4.1.1 An unparalleled opportunity to reduce emissions from transport and machinery

Australia consumed 29.8 billion litres of diesel oil in 2023 and 7.5 billion litres of aviation fuel (i.e. AVtur and Avgas products). The annual consumption of these two fuels contributed an estimated 98.962 million tonnes of CO_2-e to Australia's GHG emissions in 2023 – approximately 79.062 million tonnes due to diesel consumption and 19.900 million tonnes due to aviation fuel consumption.

Given that consumption of these two fuels predominantly occurs in substantial industries with complex engine technologies, the delivery of significant emission reductions is unlikely to be achieved by the replacement of existing technology with low carbon drivetrains (e.g. BEV and Hydrogen FCEVs) in the near term - due to both the nature of the drive-cycles and the high cost of technology switching. As a result key segments of the Australian Transport Sector (i.e. road freight, agriculture, mining, rail transport, coastal shipping and aviation) are generally deemed to be "hard-to-abate" sectors given the current impracticality of technology replacement.

Low carbon fuels – specifically low carbon diesel and sustainable aviation fuel (SAF) – present a very significant opportunity to lower the significant annual GHG emissions produced by these hard to abate sectors given that they can be used by incumbent vehicle and engine technologies. These fuels also impose lower overall adjustment costs on the national economy (when compared with BEV and FCEV technologies) as they do not require the development of new transport energy infrastructure (e.g. national high-capacity vehicle recharging networks or a national network of Hydrogen refuelling stations) – they can readily utilise existing national fuel distribution and storage infrastructure.

Some forms of Renewable Diesel (i.e. Hydrotreated Vegetable Oil or HVO) have the potential to reduce emissions by up to 80% relative to conventional diesel consumption. If utilised on a blend basis (e.g. R20), the market adoption of this fuel provides the potential to reduce annual GHG emissions from diesel consumption by 16% (which equates to around 12.650 million tonnes of CO2-e) per year.

Over the longer term, synthetic diesel (i.e. produced from hydrogen feedstock using renewable energy) have the potential to reduce diesel emissions by up to 90%. That said, the national realisation of the LCLF opportunity will require successful navigation of several key challenges in terms of feedstock and production economics.
At the present time, renewable diesel comes at a cost premium of between $1.20 and $1.40 per litre (wholesale basis) while synthetic diesel is estimated to cost between 2.5 and 2.6

times the cost of conventional diesel. While these costs are expected to be lowered with scale over time, the quantum of the long-term reduction remains uncertain.

For Australia, this means that LCLFs represent a significant emerging opportunity to reduce transport sector emissions in Australia over the longer term.

In the short term, the degree of market substitution of conventional fuels is likely to be defined by several key factors, including: (a) availability and affordability of suitable feedstocks, (b) near-term development of national bio-refinery production capacity, (c) the rate of near-term reduction of the GHG emissions intensity of grid sourced electricity, and (d) the cost competitiveness of domestically produced fuels when compared with international production.

4.1.2. Availability and affordability of production feedstocks

In terms of the availability and affordability of suitable feedstocks, the feedstocks that are currently utilised for the economic production low carbon liquid fuels production around the world are predominantly used cooking oil (UCO), vegetable oils such as canola oil, and waste biomass (i.e. forestry residues, agricultural residues and municipal waste).

Past studies completed by the CSIRO and the Australian Department of Energy for the Biofuels Capital Product Grant programme (2004 to 2008) - and the development of the Australian Government's 2012 Alternative Fuels Strategy - highlight that Australia's relatively small and geographically sparse population creates significant challenges for the economic aggregation of the high volumes of waste feedstocks (e.g. UCO and waste biomass) needed to support production of these fuels at scale.

This situation is unlikely to have changed in the past decade, suggesting one of Australia's greatest challenges in converting the LCLF opportunity will likely be the availability and affordability of the production feedstocks needed to support economically viable domestic production of these fuels.

The only exception to this observation is Australia's abundant canola production – albeit that the quantum of this substitution opportunity would need to be quantified as soon as practicable.

4.1.3. Current and forecast production capacity for low carbon liquid fuels in Australia

Australia's production capacity of biofuels – as opposed to low carbon liquid fuels – is currently around 440M Litres per year. These fuels are ethanol (i.e. 'First generation' biofuel) and biodiesel (largely utilising Tallow as feedstock) and are primarily sourced from just two biorefineries – one in New South Wales and one in Queensland.

ACAPMA is aware of three significant projects that are slated to produce LCLFs in Australia by 2030. The first of these is being developed by *Sherdar Australia Biorefinery Pty Ltd* and will be constructed in an East Coast location that is yet to be finalised. The project is

projected to produce around 600 million litres of renewable diesel and was first announced in 2021. The status of this project is unknown.

The second project is being advanced by *Future Energy Australia* and involves the construction of a renewable diesel production facility in Western Australia. The project is forecast to produce around 18 million litres per year. The refinery was due for completion at the end of 2023, but the status of this project is also unknown.

The third project is being advanced by BP Australia and involves the reconfiguration of the Kwinana refinery in Western Australia. The project will produce around 600,000 litres of SAF and HVO (renewable diesel) per year and is scheduled to be completed in mid to late 2026.

In summary, a small number of liquid fuel projects have been announced in recent years but none of these biofuel refineries are yet operational.

Assuming that these projects are delivered before 2030, these projects will deliver an estimated 1.218 billion litres of low carbon liquid fuels per year – which represents just 3.3% of total annual diesel and aviation fuel in Australia.

4.1.4. GHG emissions intensity of the Australian electricity grid

A key challenge for the production of globally competitive low carbon fuels relates to access to affordable low GHG emissions electricity, given that the current emissions intensity of grid sourced electricity (average of 790 g CO2-e per kWh) is substantially higher than the average emissions intensity of competing economies in Europe and North America (See Figure 1 below).

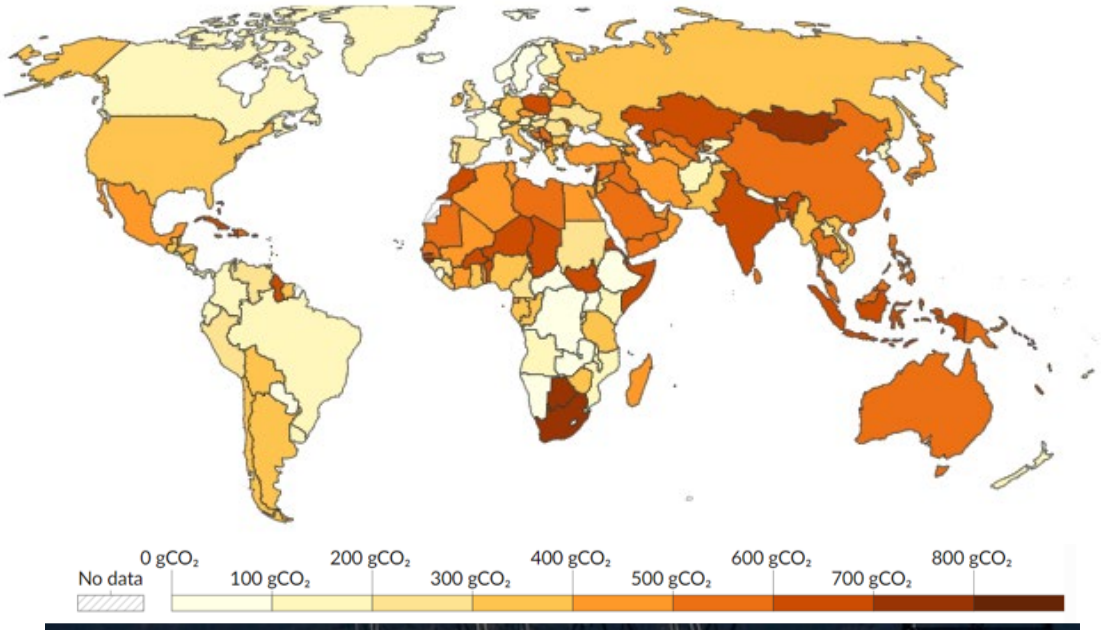


Figure 1: National average GHG emissions intensity of grid produced electricity (Source: https://ourworldindata.org/grapher/carbon-intensity-electricity?time=latest)

While ACAPMA notes the current goal of the Australian government is to reduce the emissions intensity of grid sourced electricity by 82% by 2030, examination of various energy industry reports and renewable energy investment industry reports suggests that this target is unlikely to be achieved.

Accordingly, the production of low carbon liquid fuels will likely either (a) be more expensive than production in other international economies as Australian producers seek to utilise higher unit cost sources of electricity generated by small scale renewables, or (b) deliver a lower GHG emissions reduction by comparison with imported LCLF product.

ACAPMA therefore believes that the architecture of supply-side incentives provided by the Australian Government to support the growth of LCLF, will need to take account of the likely near-term higher cost of production of LCLF's that deliver a GHG emissions benefit that is equivalent to that of internationally sourced product.

4.1.5. Likely cost-competitiveness with internationally sourced LCLFs

The current limited volume of suitable LCLF feedstocks (Section 4.1.2 above) coupled with a relatively small domestic production industry in the near term leading to likely higher unit production costs (Section 4.1.3 above) and the likely higher cost of low GHG emissions electricity for production (Section 4.1.4 above), suggests that Australia produced LCLF is likely to come at a higher production cost than other international economies.

For that reason, the establishment of a significant LCLF domestic production industry will require the provision of substantial government assistance to producers to negate the likely domestic cost premium. The quantum of this premium will likely vary depending upon the scale and geographic location of production facilities.

4.2 Options to support Australian domestic low carbon liquid fuel production

ACAPMA's membership does not extend to fuel production and consequently, the Association is not able to provide comprehensive comment in respect of the options that could be utilised to support domestic low carbon liquid fuel production.

Nonetheless, as a participant in the supply chain for LCLF's, ACAPMA believes that the following observations should be accommodated in the design of any future production incentives for the establishment of a domestic LCLF industry:

a) The nature of the LCLF premium for end users will be different for consumers of renewable diesel (and synthetic diesel) and SAF. Given the stark differences in these national fuel markets, there will likely be a need to provide a different quantum of assistance for the production of renewable diesel and the production of SAF.

b) The provision of incentives for domestic production should seek to negate differences in the financial cost of domestic product and imported product – as opposed to providing a significant cost advantage for domestically produced LCLF's within the national fuels

market. To do otherwise would risk significant competition distortion in a deeply competitive national wholesale fuels market in Australia.

Further, Australia's LCLF production is likely to be relatively small in the near term. It therefore follows that any significant cost penalty for imported product would likely slow the rate of market adoption of these fuels in Australia– and reduce the rate of GHG emissions reduction within the transport sector unnecessarily (i.e. There will be a need to strike a balance between the dual objectives of reducing GHG emissions from the Australian Transport sector under Australia's *Net Zero 2050* Initiative and supporting increased domestic production under the *Made in Australia* initiative).

c) The quantum of any future production subsidy (or equivalent taxation concession), together with the financial effect of any demand side incentives (such as a reduction in the Road User Charge for road freight operators), should ideally eliminate the cost premium relative to conventional diesel.

Put simply, ACAPMA believes that supply side assistance should be about 'levelling the playing field' with respect to imported and domestically produced LCLF's only.

Further surety of the market would best be achieved by advancing simultaneous demand side incentives that seek to reduce the cost premium of LCLF's relative to the price of the incumbent conventional fuels – regardless of where they are sourced (i.e. seek to catalyse total market demand).

4.3 Nature of pathways to produce domestic SAF and renewable diesel

ACAPMA is not able to provide any authoritative comment in respect of these issues.

The Association therefore defers to feedback provided by the Australian Institute of Petroleum and emerging LCLF manufacturers.

4.4 Suggested emissions and sustainability criteria for LCLFs

4.4.1 GHG Emissions Criteria (relative to conventional fuels)

Any new standard for LCLFs – including that for renewable diesel and sustainable aviation fuel – should stipulate a minimum emission reduction threshold compared with the *life cycle* emissions of conventional fuels. Within this context, ACAPMA notes that the European Union's Renewable Energy Directive II [see Directive - EU - 2023/2413 - EN - Renewable Energy Directive - EUR-Lex (europa.eu)] stipulates an emissions reduction of at least 65%.

By comparison, the USA's Renewable Fuel Standard stipulates a life cycle emissions reduction of at least 20% compared with conventional fuels [see Final Renewable Fuels Standards Rule for 2023, 2024, and 2025 | US EPA)] Such fuels could reasonably be blended with conventional fuel initially to deliver a lesser GHG emissions benefit, with a view to a requirement for progressive increase in blend renewable diesel concentrations (and hence GHG emissions) over time.

ACAPMA believes that Australia should set a target for emissions reduction that is closer to the European Union objectives, possibly via a stepped target that increases from a minimum requirement of 50% reduction to at least 65% over a ten-year period.

4.4.2 Sustainability Criteria

In terms of sustainability criteria, ACAPMA notes the problems created by first generation fuels and the issues giving rise to the Food vs Fuels debate of the past.

Clearly, LCLF's should not come at the cost of cannibalisation of global and international food stocks. That said, there is a need for some nuance in terms of 'ruling in' and 'ruling out' specific feedstocks given that there are several feedstocks that might reasonably be classified as 'food products' but may not create significant food supply challenges given their abundant supply in Australia (e.g. Canola).

In short, ACAPMA supports the imposition of sustainability criteria that guard against unintended adverse consequences on food supply and water supply.

Such criteria might be developed along similar lines to the design of the European Union's *REDII Directive*. This directive stipulates sustainability criteria in the following areas:

- Land use and biodiversity
- Soil, water and air protection
- Social sustainability and Labour rights
- Indirect land use change
- Certification and Traceability

4.4.3 Engine operability and supply chain compatibility criteria

While not mentioned in the Consultation Paper, ACAPMA believes that there is a need to include specific requirements in terms of engine operability (for on road engines, off road engines, machinery and plant).

Specifically, these could be requirements that ensure the new fuel is wholly substitutable for conventional fuels used in existing in ICE technologies (i.e. no requirement for engine modification or change in operational practices).

Given that one of the principal advantages of utilising a LCLFs is that they utilise existing national fuel distribution, storage and retail infrastructure – thereby defraying any significant national adjustment cost – ACAPMA believes that it would also be prudent to include a specific requirement for LCLFs to be wholly compatible with *existing* national fuel supply infrastructure.

4.5 Perspectives on the design of demand-side mechanisms

ACAPMA maintains that there is already a *latent* market demand for LCLFs – specifically renewable diesel and renewable and synthetic diesel.

This demand is manifest in a significant and increasing level of market inquiry being received by ACAPMA members from their wholesale customers. These customers include large entities that are liable under the *Safeguard Mechanism* (i.e. mining, construction, agricultural and industrial customers), enterprises that are seeking to advance ESG objectives, and road freight enterprises that support larger businesses in both categories.

The principal barrier is therefore not the absence of demand. Rather, the magnitude of the cost premium of LCLF (specifically Renewable Diesel) is currently deemed to be uneconomic from a commercial perspective - and considered to be well above the current (and near-term future forecast) of Australian Carbon Credit Units (ACCUs).

It therefore follows that if the unit cost premium of adopting renewable diesel (estimated to be in the vicinity of $1.20 to $1.40 per litre) and renewable diesel blends could be negated, then real-world demand would manifest naturally – and at a level that would likely justify investment in domestic LCLF production facilities.

ACAPMA therefore believes that the greatest near-term opportunity lies in the incentivisation of the market adoption of renewable diesel blends within the Australian Road Freight Sector. This belief is predicated on the projected substantial growth of GHG emissions from this sector (forecast to grow to 21 Mt CO_2-e by 2030) and the absence of any viable alternative strategy for emissions reductions within this sector over the medium term.

Given that this sector is projected to consumer 7.8 billion litres of diesel per year by 2030, a 12cpl premium for an R10 blend at this time would add around $0.94B to the cost of road freight in Australia – a cost that would ultimately be passed on to Australian households and businesses in the form of higher priced consumer goods and services.

It therefore follows that there would appear to be significant *whole-of-community* benefit derived by subsidising the market adoption of a renewable diesel blend (e.g. R10) in the near term.

Such a subsidy could be delivered to road freight enterprises by discounting the *Road User Charge* (RUC) levied on road freight enterprises that purchase R10 and R20 blends (i.e. 12cpl discount for R10 and 24cpl discount for R20 purchases)

Such a mechanism could utilise the existing indirect taxation mechanism for the RUC and would initially create a demand for between 780M and 1.560B litres of renewable diesel – much of which could be formalised via near term fuel supply contracts between fuel industry enterprises and larger road freight enterprises.

4.6 Impact of a mandate on fuel wholesale and fuel retail businesses.

The below comments relate to the likely impact of a renewable diesel mandate in Australia. ACAPMA is ambivalent to the use of a national mandate for SAF and can similarly see some merits in the application of a national mandate for this product.

ACAPMA believes that the narrative presented in the LCLF consultation paper is overly simplistic. It appears to be premised on the belief that the sub-optimal performance of the NSW and QLD Biofuel mandates is solely attributable to the incompatibility of the mandated fuels (i.e. ethanol) with existing national fuel distribution and fuel retail infrastructure.

Such a conclusion is manifestly incorrect. It is not supported by any objective consideration of the findings of the numerous reviews of the operation of these mandates that have been conducted by the NSW and QLD Governments since their inception (The latest of which, the 2022 review of the biofuels legislation in NSW, has resulted in a legislative decision to '*sunset'* that State's biofuels mandate in 2027).

ACAPMA's 17-year experience with the operation of fuel mandates in Australia reveals three substantial challenges with the operation of fuel mandates in the Australian marketplace.

The first relates to the fact that the very nature of a fuel mandate is that it is intended to cut across natural market demand characteristics, by *engineering* a demand for a product that is not subject to 'natural demand'.

This gives rise to a key question about why there is no demand for the mandated product. In the case of Australia's long experience with ethanol blended petrol, this question is even more critical given that the product is consistently priced at a discount relative to the conventional fuel substitute over a long period (i.e. in a market that is supposedly price sensitive).

In the case of ethanol blended petrol, the answer lies in the fact that the lack of demand is due to a persistent consumer reluctance to this fuel despite the lower unit cost.

It is strongly suggested that the overzealous nature of the emerging biofuels industry to promote adoption of first-generation biofuels in the late 1990's resulted in the market entry of high-volume blends that were destructive to some vehicles. These issues became part of consumer folklore and created a consumer reluctance to purchase the product due to a fear that the use of this fuel had the potential to damage their vehicle's engine (and this perception was largely reinforced by the national vehicle repair industry).

This perception of asset risk continues to pervade the market today despite widespread availability of the product in the metropolitan markets of Greater Sydney and Brisbane - and a decision by the Australian Government to cap blend concentrations at levels that were deemed 'safe' for vehicle operation.

The second challenge is partly created by the first challenge cited above. It relates to the fact that these mandates place liability on the 'wrong' party.

The current mandates place the liability on the fuel retailer for the purchase decisions of the customer. Such a position is unenforceable under Australian Common Law given that a retailer cannot be held liable for the independent purchase decisions of their customers.

The NSW and QLD governments sought to overcome this legal difficulty by imposing a principle of 'best endeavours' on fuel wholesalers and fuel retailers in their respective states. These principles meant that retailers were required to stock first generation biofuels and market these products in a high profile manner – effectively doing all they reasonably could to encourage fuel purchases unless they could provide valid commercial reasons for being exempted from the mandate (The cost of these measures which were designed to promote the products of biofuels producers were actually shouldered by the retail channel, giving rise to significant issues of inequity).

Despite this approach to liability, and with more than 84% of sites being compliant with the requirement of the best endeavours provision in both states, neither state has achieved their target rate of ethanol substitution in petrol. In NSW, 17 years of operation has resulted in the level of ethanol substitution in petrol being just 2.8% compared with the longstanding target of 6%. In Queensland, the 7 years of operation of the mandate has resulted in 3.1% substitution relative to a target of 4%.

The third challenge is one that did not occur with the biofuels mandate in NSW and QLD given that the mandated fuels were sold at a price discount relative to the conventional fuel alternatives.

Renewable diesel is expected to attract a price premium is likely to be in the order of 12cpl per 10% increment in renewable diesel blend. This price premium is likely to: (a) create an economic reluctance to purchase this product amongst commercial consumers, and (b) increase in transport input costs to the detriment of Australian businesses and households alike.

When considered in terms of net impact on the economy, the *wholesale* pass-through of the current wholesale price premium mandating an R10 blend (assuming sufficient supply could be obtained to support such a mandate in the near term) would add an estimated $3.576B per year to the cost of diesel fuels consumed in the Australian economy. Much of this cost would be shouldered by road transport enterprises, rail freight enterprises, mining enterprises, agricultural enterprises and construction enterprises.

In terms of the impact on road freight alone, an R10 blend would add $0.936B to the cost of transporting goods and services around Australia – and this cost that would ultimately be passed through to Australian households and businesses.

ACAPMA therefore maintains that if a mandate of renewable diesel (as distinct from SAF) was ever to be considered, it should be complimented by a reduction in fuel excise rates to

avoid a substantial increase in the cost of road freight services in Australia. Such a measure might be progressed by the application of a discount in the Road User Charge (refer to section 4.5 above) for road freight operations.

5. Summary

ACAPMA supports initiatives of all Australian Governments in respect of promoting the early market adoption of LCLFs such as renewable diesel and SAF in the near term - and synthetic diesel in the medium to long term. This support is premised in the fact that LCLFs provide an opportunity to realise GHG emission reductions from the hard to abate diesel vehicles and diesel machinery sector by utilising existing fuel supply infrastructure and existing diesel vehicles and machinery.

Conversion of this opportunity, however, will require the adoption of an approach that simultaneously advances meaningful *supply side* incentives for the sourcing of LCLFs (specifically increased domestic production) and *demand side* incentives for market adoption.

In terms of *supply side* incentives, ACAPMA is ambivalent as to whether these measures are provided in the form of *production subsidies* or *tax credits* – albeit that the *tax credit* approach would likely provide the Australian Government with greater flexibility to adapt the quantum of assistance as the market matures.

In terms of *demand side* incentives, ACAPMA is wholly opposed to the introduction of fuel mandates given that these measures have proven wholly ineffective in catalysing end-user demand - and could potentially add more than $3B to the nation's fuel bill (assuming mandating an R10 diesel blend via the national fuel quality standard mechanism) at a time when inflation is a key national concern.

Further, ACAPMA believes that it is simply not possible to mandate a target at this stage (even if scheduled for some time in the future) given the significant uncertainty surrounding both near-term supply volumes and overall supply economics, for what is essentially an 'infant' global industry.

ACAPMA believes that a better approach would involve the utilisation of a *demand side* taxation incentive focussed solely on adoption of a renewable diesel blend within the road freight sector. Such a mechanism could involve the application of a discount on existing fuel excise – specifically the RUC for road freight operators – to eliminate the cost premium associated with substitution of conventional diesel with a modest renewable diesel blend (i.e. R10 or R20). The quantum of this discount would need to be in the order of a 12cpl rebate on the RUC for road freight operators who utilise R10 blend and 24cpl for utilisation of R20.

Such an approach would likely create an almost immediate demand for between 780 million litres and 1.56 billion litres of renewable diesel, thereby providing a solid commercial case for near term investment in domestic production (and imported supply).

Once the new LCLF market was established, the fuel excise could be transitioned in combination with a progressive increase in renewable diesel blends by utilising the national fuel quality standards mechanism.

ACAPMA appreciates the opportunity to provide comment to this important consultation. The Association looks forward to continuing to work with the Australian Government and all external stakeholders, towards the meaningful conversion of the LCLF opportunity in Australia.

Should you require clarification of any of the material provided in this report in the meantime, please contact me on 0447 444 011 or by email via markm@acapma.com.au.

Yours sincerely,



Mark McKenzie
Chief Executive Officer