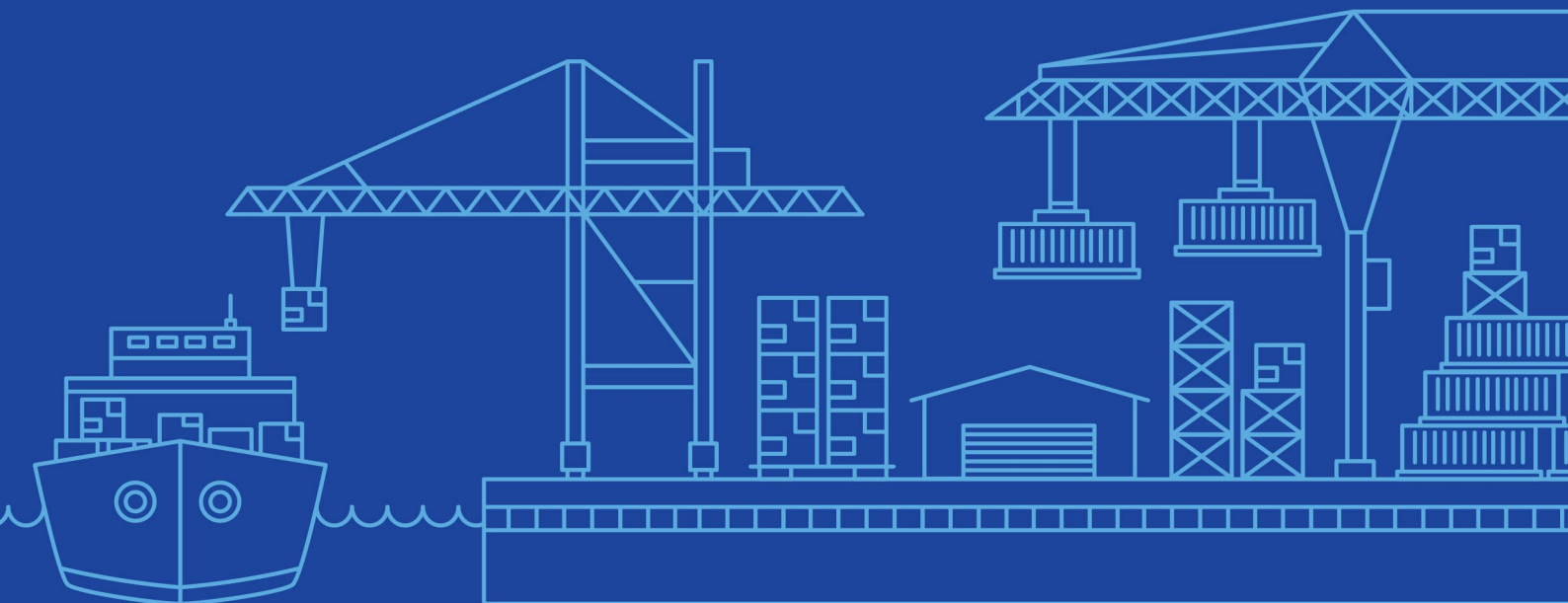


# Low Carbon Liquid Fuels A Future Made in Australia: Unlocking Australia's low carbon liquid fuel opportunity Consultation Paper

Department of Infrastructure, Transport, Regional Development,  
Communications and the Arts  
Department of Climate Change, Energy, the Environment and Water

July 2024





*Ports Australia is the peak body representing the interests of the Australian port industry. It serves as a national voice and plays a crucial role in advocating for policies and initiatives that promote the growth and development of Australian ports.*

*Ports Australia is governed by a Board of Directors comprising the Chief Executive Officers of 13 port corporations and authorities from across Australia.*

*We bring together various stakeholders, including government entities, industry members, and representative bodies, to ensure Australian ports are at the forefront of environmental, safety, and security matters. Ports Australia brings all these groups together in collaboration to ensure our ports are not only in compliance with relevant regulations but go above and beyond to ensure the best outcomes.*

Ports Australia welcomes the opportunity to provide feedback on the **Low Carbon Liquid Fuels – A Future Made in Australia: Unlocking Australia’s low carbon liquid fuel opportunity - Consultation Paper** released by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts and the Department of Climate Change, Energy, the Environment and Water on 13 June 2024.

The Australian Government has invited written submissions on the Consultation Paper on the options for, and design of, production incentives and other demand side measures to support a domestic low carbon liquid fuel (LCLF) industry, as part of a *Future Made in Australia*.

It is noted this feedback will aid development of the Electricity and Energy Sector Plan and the Transport and Infrastructure Net Zero Roadmap. For language simplicity, this response will refer to ‘the Action Plan’ as an encompassing term for these two plans.

This paper is consistent with Ports Australia’s response to the *Transport and Infrastructure Net Zero Consultation Roadmap*, which noted the importance of having multiple future fuel and technology strategies singularly supporting Australia’s maritime decarbonisation efforts.

For the purposes of this response, the term ‘future fuel/s’ is used to denote hydrogen and hydrogen-derived fuels, zero or low carbon fuels, biodiesel, and/or low carbon liquid fuels. Where there is a distinction required a particular term will be used, in particular for low carbon liquid fuels (LCLFs).

Ports Australia continues to welcome engagement by the Department of Infrastructure, Transport, Regional Development, Communications, and the Arts (DTIRDCA) and the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on the viable pathways, actions and policies to support decarbonisation.

Ports Australia and its members delivered substantial responses to the consultation on DITRDCA’s development of the *Transport and Infrastructure Net Zero Consultation Roadmap* and the *Maritime Emissions Reduction National Action Plan (MERNAP)*; both directly impacting Australia’s maritime industry.

In light of the ownership and operating model differences within the ports and maritime sector, this submission does not represent all industry perspectives. Ongoing engagement by Departments with each port will be necessary to understand the nature, experience and challenges of each port.

Should either Department require further details on information provided, please contact Ports Australia.



With shipping as the most sustainable transport mode for large cargo volumes, Ports Australia members are actively engaged in decarbonisation of their own operations, in addition to supporting the broader supply chain's decarbonisation efforts, particularly on the maritime side. Echoing this, decarbonisation and long-term sustainability are cornerstones of Ports Australia's strategic priorities.

Ports Australia recognises guiding development of an Australian LCLF industry is a focus on: *'...policy approaches to accelerate investment and incentivise efficient production of LCLFs. It seeks views on the optimal policy mix, including the design of production incentives and demand-side options and the interaction of these measures...'*

Ports Australia supports the Federal Government establishing policy settings to encourage the growth and use of sustainable fuels, however, it is important the government does not commit Australia's maritime industry to a single source of future fuel.

With internationally built and owned vessels dominating Australian trade movements, the maritime industry path to Net Zero is globally focused; and key to the transition rate to no or low carbon fuels is access, choice, efficiency, cost and sustainability.

Ports Australia realises global shipping across time will move between fuel types – such as biofuels/low carbon liquid fuels, liquified natural gas (LNG), methanol, hydrogen and ammonia. As highlighted later in this response a December 2023 Market Report by the Baltic and International Maritime Council (BIMCO) notes LNG has been shipping's future fuel of choice, with methanol and ammonia gaining popularity.

In the shorter term, a majority of vessels servicing Australia's international trade routes are expected to continue refuelling in countries other than Australia, due to factors including their principal port and more importantly favourable purchase pricing for fuels.

The price differential when refuelling in Australia will limit the potential market for LCLF use in the current maritime shipping mix. It is recognised over time particular future fuels may deliver fewer nautical miles and this may see greater Australian-based refuelling demand.

To maximise the ongoing decarbonisation of the Australian port and maritime environment, as the Federal Government partners with industry and the community towards Net Zero, port knowledge and experience will be essential to shaping suitable and practical pathways.

Sustained engagement by all levels of government and their departments with the Australian transport and infrastructure sector is important to understand the practical implications and implementation challenges of proposed pathways to ensure future strategies developed in this area will support the advancement of Australia's maritime decarbonisation efforts.

Encouragingly the ports industry consistently works in partnership with Federal Government and its agencies to identify and address challenges with Australia's supply chain, both proactively and in real time.

We recognise the MERNAP will aim to address decarbonisation of the maritime industry, and as ports are the key interface between maritime and landside trade, Ports Australia has previously made recommendations on the MERNAP informed by research on the international and national landscape and understanding of the port and maritime sector across Australia.

Ports Australia supports strategic planning by government to emphasise research and piloting measures, and appropriately position Australia to act and invest as further certainty on future fuels and technologies is gained. As part of this, Australian governments and businesses must carefully consider their resources and available measures to ensure comparisons between measures and adoption is fiscally optimal for long term sustainability.



Ports Australia and our members look forward to continuing to work with the Commonwealth and its agencies on the government actions and policies founding the path to Net Zero to ensure:

- government and industry are equipped to meet desired net zero targets, with progress informed by broad consultation across the maritime sector and comprehensive impact assessments
- research, analysis and implementation of evidence-based and cost-effective solutions
- agile and flexible strategies as energy sources, technology and supply chain environments advance
- Australia continues to comply with international obligations
- recognition of differing attributes of ports and maritime industry participants, including their existing and proposed infrastructure
- recognition of the differing capacity of maritime sector participants to finance and implement decarbonisation measures
- understanding the cost implications for Australian consumers, exporters and importers are outweighed by the benefits to the Australian community
- a clear fit-for-purpose legislative and regulatory framework contains evidence-based and cost-effective measures minimising regulatory burden and provide investment certainty
- supports an even playing field across the sector.



## Globally Driven Maritime Decarbonisation

The global dimension of international maritime sector decarbonisation is highlighted in a December 2023 Market Report<sup>1</sup> by the Baltic and International Maritime Council (BIMCO) stating ‘...only 1% of bulk, container, and tanker ships are prepared for using these [zero or near-zero] fuels and fuel availability is low.’

1. <https://www.bimco.org/news-and-trends/market-reports/shipping-number-of-the-week/20231220-snow?pn=2>

The Report notes:

*‘The 1% of ships currently prepared to burn alternative fuels make up 2% of the fleet’s deadweight capacity. Another 1% of ships...are readied for alternative fuels so they can more easily be retrofitted.*

*However, 29% of the ships and 42% of the deadweight capacity in the order book are expected to be delivered prepared or readied for alternative fuels.*

*Even if no existing ships are recycled, 4% of the fleet’s deadweight capacity will be prepared to burn alternative fuels once all the ships in the order book have been delivered in 2028. And another 4% will be readied for retrofit.*

*As 1-2% of the fleet’s deadweight capacity is recycled every year, the share of the fleet’s deadweight capacity readied or prepared for alternative fuels will end higher by the [International Maritime Organization] 2030 deadline...’*

In concluding BIMCO states, ‘So far, LNG has been shipping’s most popular alternative fuel, however, methanol and ammonia have been gaining popularity.’

Building upon a scarcity of available alternative fuelled vessels to support Australian trade, in recent years we have witnessed a significant rationalisation of the number of shipping lines servicing Australia.

As these vessels and their fuel source decisions are outside of Australia’s direct control, in charting a successful course for maritime decarbonisation we will need to be both supportive of new and retrofitted vessels, as well as consistent with international standards and directions on future fuels and decarbonisation.



Critical to enable and accelerate future fuels and technology uptake in the Australian maritime industry – whether for production, storage/bunkering, use, disposal and risk management – is a Plan aligning with the international direction and standards for future fuels and technologies to:

- sustain Australia as a competitive market for international trade
- prevent unnecessary resource and time expenditure for Australian industry and government
- enable infrastructure, asset and fuel compatibility, and thereby efficiency and flexibility.

The path to LCLFs needs to support the Australian maritime industry to identify and then leverage the substantial research, established models, developed standards and future fuels and technologies implemented internationally.

By understanding what guidance materials are available and endorsed, will allow our economy to determine what should be adopted in Australia to enable national and international consistency; and target resources to adopt and/or develop future fuel and technology guidance and standards.

### **The IMO and International Paths**

The Net Zero Consultation Paper notes Australia has supported the International Maritime Organization (IMO) initiatives. This includes adoption of the 2023 IMO Strategy on Reduction of GHG Emissions from Ships, to reach net-zero emissions from international shipping by close to 2050, with indicative check-points for 2030 and 2040.

The International Convention for the Prevention of Pollution from Ships (MARPOL) requirements also need to be considered, including the risks of alternative fuel spills and safety impacts.

Internationally Australia's membership of the IMO is critical to ensuring the success of Net Zero through coordinated and targeted engagement between Australia and international entities, both government and non-government, to advance Australia's preparedness to adopt future fuels for maritime decarbonisation.

With Australian maritime decarbonisation expertise predominantly residing within industry; collaboration of the Australian Government with industry stakeholders in preparing for and negotiating successful outcomes during international engagement, including through the IMO, is required.

In parallel, Australian industry and governments need to monitor and prepare for when significant international future fuel types and decarbonisation decisions are reached and for those made in conjunction with other members of the IMO and international ship owners.

As future fuel production progresses and future fuel vessels commence servicing Australia, early implementation of supportive guidelines and standards should be prioritised; with the Australian Government and relevant Departments and Agencies progressing any necessary standards through Federal Parliament as well as the International Maritime Organization and/or other relevant international entities.

### **An Oceania Partnership**

Recognising Australia has limited international leverage if acting alone, through partnering with our Pacific neighbours we can identify the optimal cost-effective investments for both governments and industry within Australia and our region to achieve decarbonisation within the maritime sector.

Australia and our Oceania neighbours share a tyranny of distance from key trading nations, comparatively smaller trading volumes, as well as the imperative need for region-based fuel solutions.

Ports Australia urges the Federal Government to prioritise collective efforts with New Zealand and our Oceania neighbours to adopt a regional approach to ensure the region attends future IMO meetings and associated negotiations as a collective voice.

We note partnerships would be specifically beneficial when assessing regional capabilities and needs for bunkering future fuels, such as LCLFs.

Through identification and adoption of a limited number of regionally produced future fuels as well as location appropriate bunkering, economies of scale would see renewable resources used more effectively and with a broader Net Zero impact.



At the 46<sup>th</sup> Pacific Maritime Transport Alliance (PMTA) Conference in July 2024 Ports Australia CEO Mike Gallacher identified the need for regional partnerships in choosing the next generation of future fuels to ensure they are viable, made in the region, and stored sustainably at our ports. This approach was received warmly by Conference attendees.



## Investing in Future Fuels Supply Chains

Though the focus of the path to Net Zero is within Australia, as noted above, understanding the international maritime landscape is critical to informed implementation of future fuels.

Maritime industry participants face a regulatory burden of preparing and implementing decarbonisation strategies which will be fundamental to meeting their required targets. These will ultimately fail without a guarantee of supply of locally produced and locally supplied future fuels.

Underpinning the Low Carbon Liquid Fuels pathway is a need to support comprehensive mapping of feasible future fuels – a National Future Fuels Plan - to assess domestic needs, obtain the costs and effectiveness of each measure, where available, identify local fuel sources; and gather information on funding pathways.

Ports Australia called for a national fuels plan in response to MERNAP's Issue Paper 2 and recognise developing a national plan will require drawing on the expertise of different government departments.

A **National Future Fuels Plan**, enabling fuel certainty for governments and industry, requires focus to:

- determine projected supply and demand models of future fuel requirements for the transport and infrastructure sector, including the maritime industry
- identify the alternative fuel types and volumes available for shipping and bunkering
- highlight the supply chains to reinforce or establish
- understand and secure production and supply opportunities within Australia and/or Oceania
- anticipate bunkering requirements of domestic consumption and vessel use of future fuels
- map capabilities of Australian ports to undertake bunkering
- map supply chains and lifecycle of future fuels to understand those viable for the maritime sector
- research safe storage times and degradation of future fuels
- identify global significant technological and future fuel developments and investment
- enable investment confidence in viable options.

The Federal Government should be supporting the Australian maritime industry to identify and then leverage the substantial international research, established models, developed standards and future fuels and technologies.

### **Building on National Cabinet Cooperation - Government Expectations on Bunkering at Ports**

The transport and infrastructure industries would benefit from each level of government being on the same page with respect to the substantial infrastructure changes required to deliver decarbonisation – in particular switching to future fuels - and for that commitment to be reflected in the Action Plan.

As noted in our Net Zero Roadmap response, the Federal Government has significant influence in setting the direction of Australian government reform and budget expenditure through the National Cabinet process.

Under the auspices of National Cabinet, Ports Australia urges the Federal Government to arrange ongoing and productive discussions between the federal, state and territory governments, as well as relevant local governments, on the Federal Government's principles and expectations with respect to decarbonisation in





the maritime sector; in particular the vital infrastructure and budgetary supports respective levels of government will bring to the table.

In this context state/territory and local governments have the final decision-making capacity with respect to infrastructure development including bunkering with respect to future fuels, including LCLFs, and should be clear on the Federal Government's path to Net Zero as it applies to the maritime industry to ensure infrastructure investment is not unnecessarily delayed or denied.

Based on their particular location, Ports Australia members would benefit from understanding which, if any, fuels would be deemed by their relevant governments (federal, state/territory and/or local) to be outside of acceptable scope for adoption and those which would require particular environmental mitigations/considerations.

At Australian ports as future fuels are introduced, their bunkering for use by vessels and/or to supply the Australian economy will be underpinned by appropriate safe storage standards and emergency management procedures to meet government and community environmental expectations.

There are extensive benefits for all parties to have advance knowledge of the landscape within each state/territory and as such additional certainty from an understanding of expected government regulatory restrictions is vital.

In light of the considerable financial impost of future fuel investments, for the maritime industry to invest with certainty in the use and storage of future fuels, a clear understanding is required of government (whether federal, state/territory or local) expectations and potential restrictions on bulk storage of future fuels at Australian ports.

Ports Australia urges the Federal Government to fund and commission a Scoping Study to identify and outline what will be mixed expectations of federal, state/territory and local governments on bunkering at Australian ports. This Study should include insight of potential fuel environmental impacts and challenges in Australia's unique marine environment and projected mitigation measures.

For industry the Scoping Paper should include details from across all jurisdictions on the projected regulatory requirements around future fuels – including safety, handling and storage standards, as well as exclusion zone requirements – for vessel on-water use; landside use; as well as land transport and storage. AMSA would be well placed to provide expertise on a number of these matters.

Discussion at National Cabinet level of the final Scoping Study should be pursued to resolve any significant matters impeding safe bunkering within Australian ports.

The purpose of the Scoping Study and National Cabinet discussions should not be to mandate which fuel will be used, rather what is not going to be deemed acceptable in a particular location or locations.

### **Government Investment – Choice Agnostic, Outcomes Focus**

As noted elsewhere, there will be a significant impact on industry in both one-off and ongoing costs of decarbonisation; impacting the ability of industry to continue to invest in maritime infrastructure, its people and securing Australia's trade routes.

Australian governments should not seek to make future fuel choices for industry, rather government should recognise movements in future fuel choice are likely as advantages and disadvantages of each is understood and industry requirements are clarified.

Investment is the key role of Government in decarbonisation including financing, local content incentives, grants, tax rebates or co-investment. During earlier MERNAP consultation Ports Australia referenced other measures including government underwriting initial offtake agreements for future fuels and tax incentives for decarbonisation initiatives.

It is noted earlier government investment within the maritime sector is challenged by significant factors including the lifecycle of a majority of ships undertaking Australia's trade; and a majority of those ships are owned by foreign entities who make investment decisions outside of Australia's direct influence.



Experience internationally demonstrates government investment is critical in many maritime supply chain decarbonisation efforts – whether research, development or technology trials – and in undertaking what will be significant reforms and infrastructure upgrades.

While the bulk of work is best undertaken by industry and manufacturers; government provision of financial assistance to transport industry participants will need to have an outcome focus of encouraging industries to invest long term in future fuels and decarbonisation initiatives.

### **Guarantee of Origin (GO) Certification**

Extension of the Federal Government’s commitment as part of the *Future Made in Australia* program beyond the Guarantee of Origin (GO) certification scheme to track and certify emissions from hydrogen, then expanding to low carbon liquid fuels, is required to deliver overall supply and supply fidelity.

As the LCLFs Consultation Paper notes, ‘LCLFs are currently estimated to be between 2 and 5 times higher in cost than their unabated fossil fuel counterpart,...’.

With future fuels for the foreseeable time being sold at a higher sale price point, there will be a significant incentive for ‘counterfeit’ or tainted fuels, or those without a sustainable origin, to enter the market.

Ports Australia submits the need for a government commitment should future fuels be sold at a premium they will have an auditable appropriate provenance and governments will commit resources to monitoring and prosecution of profiteering and/or counterfeit offences. Offences must be supported with appropriately severe penalties to deter both offenders and those considering supplying to the market non-sustainable fuels for profit.



### **Certainty to Deliver in a Flexible, Outcomes-based Environment**

Australian maritime industry participants have been subject to ongoing review and regulatory change, both proposed and realised, resulting in industry uncertainty and resource expenditure on engagement with and responding to the Federal Government and departments.

National regulatory certainty is critical to support maritime sector led decarbonisation investment - whether future fuels, technology or mechanisms.

In supporting long-term commitments by industry, it is critical decarbonisation strategies applicable to Australian ports are reinforced by regulatory environments focused on an outcomes-based approach informed by the current international and national maritime landscape of:

- Australia committing to net zero emissions by 2050, and an interim reduction of emissions by 43% below 2005 levels by 2030
- decarbonisation targets set by the International Maritime Organization (IMO), to reach net-zero emissions from international shipping close to 2050
- Australian states committing to their own interim reduction targets which either align or are more ambitious than the Australian interim reduction target
- future fuel emphasis moving between fuel types, including biofuels/low carbon liquid fuels, liquified natural gas (LNG), methanol, hydrogen and ammonia.

To ensure a fit-for-purpose and practical approach to LCLF implementation as part of the path to maritime decarbonisation, supportive arrangements within the Government’s remit include:

- proactive engagement and support of industry and government collaboration within Australia, across Oceania and internationally
- endorsement of international guidelines and standards
- consideration of available resources and measures ensuring evaluation and adoption is as cost-effective as possible for long term sustainability of Australian trade





- incentive programs supporting long-term investment in research, development and rollout of future fuels and/or technologies by the market
- regulatory arrangements consistent with evidence-based and cost-effective actions, and account for variation across the maritime sector
- assuring fuel availability by requiring future fuel proponents to supply for domestic and/or bunkering use a proportion of locally produced low or no carbon fuel
- resourcing of AMSA to respond to relevant incidents.

Successful maritime decarbonisation investment pathways and government incentives need to be informed by the industry ecosystem including:

- extended lifecycle of large vessels resulting in slow turnover to lower carbon use vessels
- most vessels are manufactured outside of Australia in mature construction and purchase markets
- a majority of vessels undertaking Australia's trade are owned by foreign entities
- a majority of vessels engaging in international trade are 'visitors' to Australia, ie they are not based in Australia nor spending a majority of their time in Australia
- access to affordable capital investment, whether by government, institutions, superannuation funds or private equity
- access to available and appropriately skilled labour.

Ports Australia asks federal government departments to work with industry participants on appropriate distinct approaches to the path to future fuel sources, decarbonisation and supply chain risk mitigation.

By supporting industry and government responsiveness to the changing landscape with these factors in mind, Australia will be in the best position to achieve the objectives established.

**ENDS**

**July 2024**



**Ports Australia**

