

Transport and Infrastructure Net Zero Consultation Roadmap

Take the survey

Department of Climate Change, Energy, Environment and Water

Response received at:

August 6, 2024 at 2:41 PM GMT+10

Response ID:

sbm2fbc16619048b2bd55bda

- 1 Confirm that you have read and understand this privacy notice.
Yes
- 2 Please indicate how and if you want your submission published.
Public
- 3 Published name
Ports Australia
- 4 Confirm that you have read and understand this declaration.
Yes
- 5 First name
Not answered
- 6 Last name
Not answered
- 7 Email
Not answered

- 8** Phone
Not answered
- 9** Who are you answering on behalf of?
Organisation
- 10** Organisation name
Ports Australia
- 11** What best describes you or your organisation?
Not answered
- 12** What sector do you represent?
Not answered
- 13** What state or territory do you live in?
New South Wales
- 14** Postcode
2000
- 15** What area best describes where you live?
City
- 16** 1. Do you support the proposed guiding principles?
Not answered
- 17** 1.1 Please add details to your response.
Not answered
- 18** 2. Do you support the use of the avoid-shift-improve framework as a tool to identify opportunities for abatement?
Not answered

- 19** 2.1 Please add details to your response.
Not answered
- 20** 3. Do you agree the development of a national policy framework for active and public transport will support emissions reduction?
Not answered
- 21** 3.1 Please add details to your response.
Not answered
- 22** 4. What should be included in a national policy framework for active and public transport and how should it be developed?
Not answered
- 23** 5. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the movement of people contributes to transport emissions reduction?
Not answered
- 24** 6.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure that the movement of goods contributes to transport emissions reduction?
Not answered
- 25** 6.2. How would these actions address the identified challenges and opportunities for emissions reduction in the movement of goods?
Not answered
- 26** 7. Do you agree with the proposed net zero pathway for light road vehicles?
Not answered

- 27 7.1 Please add details to your response.
Not answered
- 28 8. The Australian Government is currently developing an Australian New Vehicle Efficiency Standard and has already begun to implement actions in the National Electric Vehicle Strategy.8.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce light vehicle emissions?
Not answered
- 29 8.2 How would these actions address the identified challenges and opportunities to reduce light vehicle emissions?
Not answered
- 30 9. Do you agree with the proposed net zero pathway for heavy road vehicles?
Not answered
- 31 9.1 Please add details to your response
Not answered
- 32 10. The proposed pathway for heavy road vehicles relies on a mix of battery electric, hydrogen fuel-cell and low carbon liquid fuels.Rank from 1 to 3, the order in which these should be prioritised for emissions reduction.
Not answered
- 33 10.1 Please add details to your response. Why did you rank them in that order?
Not answered
- 34 11. What role should low carbon liquid fuels play in the heavy vehicle

decarbonisation?

Not answered

- 35 12. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce heavy vehicle emissions?

Not answered

- 36 13. Do you agree with the proposed net zero pathway for rail?

Not answered

- 37 13.1 Please add details to your response.

Not answered

- 38 14. The proposed pathway for rail relies on a mix of battery electric, hydrogen fuel-cell and low carbon liquid fuels. Rank from 1 to 3, the order in which these should be prioritised for emissions reduction.

Not answered

- 39 14.1 Please add details to your response. Why did you rank them in that order?

Not answered

- 40 15. What role should low carbon liquid fuels play in rail decarbonisation?

Not answered

- 41 16. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce rail emissions?

Not answered

- 42 16.1 How would these actions address the identified challenges and

opportunities to reduce rail emissions?

Not answered

43 17. Do you agree with the proposed net zero pathway for maritime?

Not answered

44 17.1 Please add details to your response.

Not answered

45 18. The Australian Government is engaging in consultation as part of the development of the Maritime Emissions Reduction National Action Plan and those consultations will also inform the final Roadmap and Action Plan. 18.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce maritime emissions?

Not answered

46 18.2 How would these actions address the identified challenges and opportunities to reduce maritime emissions?

Not answered

47 19. Do you agree with the proposed net zero pathway for aviation?

Not answered

48 19.1 Please add details to your response.

Not answered

49 20. The Australian Government has already engaged in consultation on aviation decarbonisation through the development of the Aviation White Paper and those consultations will also inform final Roadmap and Action Plan.

Not answered

- 50 20.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce aviation emissions?
Not answered
- 51 21. Do you agree with the proposed net zero pathway for transport infrastructure?
Not answered
- 52 21.1 Please add details to your response.
Not answered
- 53 22. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce transport infrastructure emissions and ensure that transport infrastructure is ready for and enables low-emission transport modes?
Not answered
- 54 22.1 How would these actions address the identified challenges and opportunities to reduce transport infrastructure emissions?
Not answered
- 55 23. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the energy mix is ready to support transport emissions reduction?
Not answered
- 56 24. How should the use of low carbon liquid fuels (LCLFs) be prioritised across different transport modes over time to achieve maximum abatement?
Not answered

- 57 25. What are the best ways for the Australian Government to work collaboratively with industry, business, governments and communities to implement the proposed pathways?
Not answered
- 58 25.1 What are good domestic or international examples of partnership and collaboration on transport and transport infrastructure emissions reduction that could inform the final Roadmap and Action Plan?
Not answered
- 59 25.2 What opportunities can Government leverage to show leadership in Australia and internationally?
Not answered
- 60 26. What measures and metrics should be used to evaluate the final Transport and Infrastructure Net Zero Roadmap and Action Plan?
Not answered
- 61 26.1 What other data and evidence could governments use and how could this offer further insights on the pace, scale and location of transport emissions reduction pathways?
Not answered
- 62 27. Do you have any feedback on the proposed review process?
Not answered
- 63 28. Do you have any further feedback on the Consultation Roadmap and proposed pathways?
Not answered
- 64 28.1 Is there anything missing? Are the sections appropriately integrated? Is the Roadmap appropriately ambitious?
Not answered

65 29. Is there any further information or documentation that you wish to be considered with your submission?

Not answered

66 Would you like to upload a document?

Yes

67 Have you removed any identifying information from your submission?

Yes

68 Upload a submission

Ports Australia Submission - July 2024 - Net Zero in Transport Consultation Paper 2024.pdf

69 Upload a submission

Not answered

70 Upload supporting file

Not answered

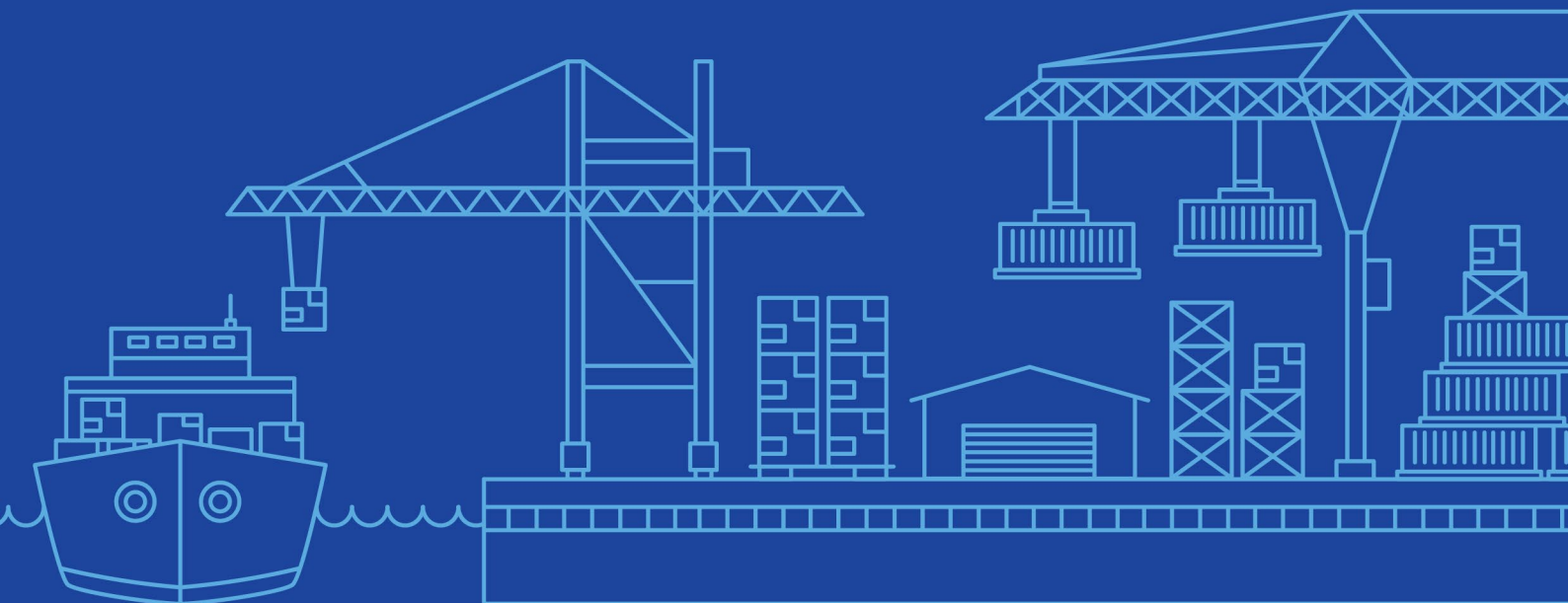
71 Upload supporting file

Not answered

Transport and Infrastructure Net Zero Consultation Roadmap

Department of Infrastructure, Transport, Regional Development,
Communications and the Arts

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 that 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.

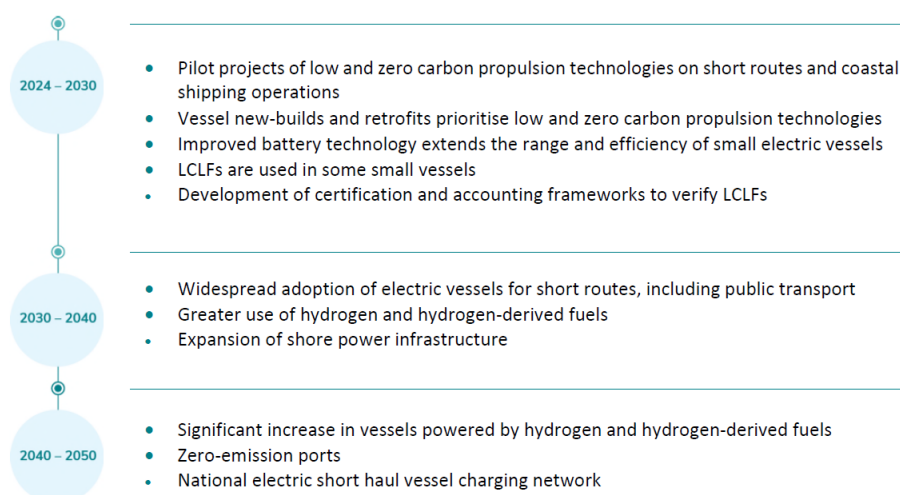
Ports Australia welcomes the opportunity to provide feedback on the **Transport and Infrastructure Net Zero Consultation Roadmap** released by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts on 22 May 2024.

As part of consultation, the Australian Government has invited written submissions on the Consultation Roadmap as part of the Net Zero 2050 plan to maximise benefits of the global transition to net zero and provide long-term policy certainty to drive investment by transport and transport infrastructure entities in low emission and renewable technologies.

The Consultation Roadmap notes transport is the third largest source of greenhouse gas emissions in Australia and in seeking to ensure it does not reach Australia's highest emitting sector by 2030, the focus is on how industry and government can work together as Australia seeks to reach net zero by 2050 and 43% below 2005 levels by 2030. Additionally, domestic maritime accounts for approximately 2% of Australia's total emissions; with international shipping not included in Australia's total emissions (consistent with international greenhouse gas reporting guidelines).

For the maritime industry the following Net Zero pathway framework is proposed:

Figure 15: A net zero pathway for maritime



It is noted in seeking to outline how Australia will transition to a net zero economy, consistent with international and domestic commitments, the Federal Government's further stated intention for the Roadmap and Action Plan is to establish a policy direction building on initiatives including:

- developing a Maritime Emissions Reduction National Action Plan (MERNAP)
- fast-tracking support for a low-carbon liquid fuel (LCLF) industry, initially focusing on sustainable aviation fuel and renewable diesel to support emissions reduction in the aviation, heavy vehicle, rail and maritime sectors



- working with the states and territories to reduce transport and transport infrastructure emissions.

Additionally, the Paper outlines five guiding principles in developing the final Roadmap and Action Plan: maximise emissions reduction; value for money; maximise economic opportunity; inclusive and equitable; and evidence-based.

Ports Australia continues to welcome engagement by the Department of Infrastructure, Transport, Regional Development, Communications, and the Arts (the Department) on the viable pathways, actions and policies to support decarbonisation. This builds on the recent engagement and partnerships undertaken by the Federal Government around low and zero emission technologies, low carbon liquid fuels, National Hydrogen Strategy, National Battery Strategy, as well as the sustainable ocean economy.

Ports Australia and its members delivered substantial responses to the consultation on the Department's development of the *Maritime Emissions Reduction National Action Plan (MERNAP)*; that aims to be a significant support to Australia's decarbonisation efforts and the maritime industry.

Supporting this effort, the Ports Australia response has been structured with a general overview of the matters of concern to our members as part of reflecting on the Consultation Roadmap and Action Plan issued on 22 May 2024. The importance of having multiple future fuel and technology strategies singularly supporting Australia's maritime decarbonisation efforts cannot be overstated.

As this response canvasses policy relating to low carbon liquid fuels, commentary will also be reflected in the Ports Australia response to the *Low Carbon Liquid Fuels (A Future Made in Australia: Unlocking Australia's Low Carbon Liquid Fuel Opportunity) Consultation Paper* issued on 13 June 2024.

Should the 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.

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 a suitable and practical Action Plan.

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.

Ports Australia recognises the key principles guiding development of the final Roadmap and Action Plan: *'We will seek to maximise emissions reduction and economic opportunities by providing value for money in an inclusive and equitable way that is evidence-based. We will also build on existing effort and knowledge...'*

Encouragingly the ports industry consistently works in partnership with the Department 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.

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 the Department with each port will be necessary to understand the nature, experience and challenges of each port.



Ports Australia supports a strategic plan emphasising research and piloting measures, and appropriately positions 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.

The Final Roadmap and Action Plan needs to account for important and critical differences and enable each port to build on the strengths of its unique nature, to support their own decarbonisation and that of the broader maritime industry.

Ports Australia and our members look forward to continuing to work with the Commonwealth and its agencies, in particular the Department, on the government actions and policies founding the final Roadmap and Action Plan 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.

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.



Globally Driven Maritime Decarbonisation

The global dimension of international maritime sector decarbonisation is highlighted in a December 2023 Market Report¹ 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 Final Roadmap and Action 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 Final Roadmap and Action Plan also 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.

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 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 the Final Action Plan 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, must be reflected in the Final Action Plan.

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.



International strategies requiring expansion upon in the Final Roadmap and Action Plan include details of proposed Green Shipping Corridors and drawing upon the European Union collaborative approaches to decarbonisation.

An Oceania Partnership

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

To lift the Final Roadmap and Action Plan, 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.

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 46th 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 development of the Final Roadmap and Action Plan.

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 Final Roadmap and Action Plan, in addition to 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.

As noted earlier, the Final Roadmap and Action Plan should support the Australian maritime industry to identify and then leverage the substantial international research, established models, developed standards and future fuels and technologies.

Government consultation with the maritime industry has mooted **best-practice informed source hubs** as part of supporting Australia's decarbonisation pathway. There are appreciable benefits to industry in the Federal Government providing a one-stop shop of international best practice, and curated information on research, standards, models and technology, that may be adopted and adapted for Australian industry.

Building on National Cabinet Cooperation

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, and for that commitment to be reflected in the Final Roadmap and Action Plan.

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.

State/territory and local governments will have the final decision-making capacity with respect to infrastructure development such as bunkering; expansion of port lands, swing basins, the ship to shore interface protection; maintenance of current industrial lands; electrical supplies; as well as the upgrading of road, rail and pipelines.

In addition to this, there is gaugeable pressure on ports based on location which may be proximate to sensitive environments; including housing, industrial precincts, as well as marine parks, reserves and marine life breeding grounds/nurseries.

In this context state/territory and local governments 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.

This work would value add to 'best-practice informed source hubs' in real time collation and distribution of this valuable information.

Government Expectations on Bunkering at Ports

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.

As the Consultation Roadmap explores, and the Final Roadmap and Action Plan should reflect the key role of Government in decarbonisation – investment - 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. For example, it is understood international and current Australian onshore power supply implementation at ports has only occurred with significant government investment. This should be reflected in the Final Roadmap and Action Plan.

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.



Data Sources and Support

In developing the Final Roadmap and Action Plan, BITRE, ABS, AMSA and ATSB data sources are appropriate in most cases, noting there are certain limitations of which these agencies are aware.

When measuring decarbonisation strategies outside of these sources, it will be important for governments to, where possible, use existing data held by entities as opposed to requiring industry to establish measuring and reporting mechanisms requiring extensive investment.

To prevent unnecessary duplication of effort and regulatory burden the Department in working with industry participants must accept as compliant with reporting requirements, where possible, already existing data and data sources.

Departmental support of ongoing education and awareness programs under the Action Plan will be far more effective paths to promote positive outcomes over enforcement-centric approaches.

Maritime Emissions Reduction National Action Plan (MERNAP)

As noted, regulatory certainty within the Australian maritime sector is a critical factor to support decarbonisation. The maritime industry has anticipated the conclusion of the MERNAP consultative process for some months and recognises the MERNAP must fit within the Final Roadmap and Action Plan structure to ensure optimal outcomes.

There is significantly limited utility to industry on their decarbonisation journey to have a series of choices or options for consideration by the Federal Government without it being in a clearly defined delivery framework which would provide assurance to industry of the future direction of the Action Plan.

Ports Australia urges the Federal Government to release the final MERNAP, with deliverable and investment supported initiatives, before the end of 2024. Ports Australia and our members will continue to offer the benefit of our knowledge and experience in refining this Plan.

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 Low Carbon Liquid Fuels (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 the Final Roadmap and Action Plan to include 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.

Overlapping Federal and State Targets and Expectations

Challenging industry certainty and planning, a number of Australian states and territories have set their own more ambitious emission reduction timelines.

With most commercial ports in Australia under state or territory government ownership; in establishing new transport energy frameworks there are practical challenges arising from different legislative frameworks and expectations between jurisdictions (states and territories) and the Commonwealth.



It is clear every approval complexity, whether inconsistent application or overlapping regulations, will hinder investment by industry in decarbonisation.

To support the Final Roadmap and Action Plan it is crucial, if not undertaken, the Department conduct a mapping exercise to understand potential or actual duplication and/or conflicts in federal and jurisdictional requirements for port and maritime infrastructure and decarbonisation.

It would be helpful to also include the regulatory obligations to ensure ports are not subject to concurrent similar regimes, or if there is compliance under one regime it is treated as compliance under the other/s.

Industry would benefit from having this mapping shared, and for industry and government to work on an approach to remove any duplication in reporting requirements.



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 establishing a Final Roadmap and Action Plan 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 strategic and flexible Roadmap and Action Plan, with a fit-for-purpose and practical approach 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
- recognition ports in Australia are unique in their location, ownership, operating structure, infrastructure, land and landside connections, volumes and types of trade, and vessels they service
- 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.



Under the Final Roadmap and Action Plan 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
- potential or perceived impacts on the community surrounding a port
- marine parks, reserves and marine life breeding grounds/nurseries close to ports
- approvals under Commonwealth and/or state/territory environmental Acts; such as the *Environmental Protection Biodiversity Conservation Act 1999* (Cth) and *Underwater Cultural Heritage Act 2018* (Cth).

Ports Australia requests federal government departments 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 under the Final Roadmap and Action Plan.



Developing Infrastructure

Ports Australia welcomes the recognition within the Consultation Paper of the costs associated with infrastructure development and adopting no or low carbon maritime energy sources and technologies given, as the Paper (pg.57) notes, *'the industry's slim profit margins and market uncertainties.'* Further, *'Many ports are also located in areas where there is limited land available for the development of this infrastructure.'*

Ports have consistently invested in infrastructure and technology to meet supply chain demands. Over the last five years, in the order of \$3.8 billion has been invested in capital expenditure by our members.

However, developing port-related infrastructure is challenging for our members, who as noted, are largely government-owned, making states and territories the primary infrastructure delivery partners. Fiscal constraints, complex planning processes and the need for social licence results in extended lead times for new port infrastructure.

On the decarbonisation journey, assessing risks and mitigating them within a port's activities and their overall supply chain, in particular for critical services and products, will require significant resources. Adding to complexity, there are infrastructure related carbon emission sources beyond the ship-to-shore interface that fall outside the port boundary – including roads, rail lines, pipelines, power grids and intermodal terminals – upon which port operators rely to move goods that may be within the ownership or control of another entity, or a jurisdictional (state, territory or local) government authority.

Where timeframes and potential offsets can be disabling factors, the maritime industry in partnership with federal, state and territory governments, must take a proactive and holistic approach to the planning and construction of new port infrastructure on the path to Net Zero.



Noting Australia's marine freight cost impacts if port infrastructure is not delivered efficiently, National Cabinet can play a key role to bring together federal and state/territory governments in:

- providing funding for new infrastructure and decarbonisation measures
- setting supportive government contractual requirements and expectations for sustainable resource use in project design and construction
- reducing planning approval times for new infrastructure
- reviewing the level of approval processes required for decarbonisation initiatives
- identifying and securing infrastructure and lands not within the control and/or ownership of the port entity
- opening up bulk material sources required for landside infrastructure.

Onshore Power and Electricity Supply Constraints

When setting standards at a government level on electricity grids in a port environment, it must be recognised governments play a vital role to ensure high voltage connections with sufficient long-term capacity are available – through infrastructure provision, subsidies and/or grants. This should be reflected in the Final Roadmap and Action Plan.

Onshore power can assist to reduce vessel emissions at berth, however, there are significant cost, uptake and infrastructure considerations, and it is not suitable for all berths or ports.

For planning purposes there may be finite draw available, either within the port environment or within the neighbouring community, including:

- individual ports already seeing limitations on existing electricity grid capacity, in particular microgrids and those outside the national electricity market (NEM), for shore power
- local community demand for electricity– whether infill housing or the demand for motor vehicle charging stations – may limit power draw
- the energy draw of multiple vessels at anchor may preclude providing freight vehicles electric charging stations at the port/road interface.

Examination of the economics – cost/benefit analysis - of onshore power and application in individual Australian ports, should form part of the Final Roadmap and Action Plan to inform investment and operational decisions. Factors to consider include:

- anticipated vessel uptake, including investment decisions being made by shipping companies to transition their fleets and expected fleet visits to Australia
- power load requirements of vessels visiting the port/berth, and the resulting cost impact on electricity contracts/purchase agreements
- renewable electricity availability (variable load demand)
- implementation feasibility, including existing grid infrastructure and capacity, and new infrastructure requirements
- capital and operational costs
- funding and cost recovery options
- forecasting the timing and impact of future fuels on utilisation of onshore power supply by vessels, to determine the expected energy source of vessels whilst at berth ie will onshore power infrastructure be used or be redundant
- options analysis on appropriate measures to support reduced vessel emissions, particularly at berth
- onshore power standards to assist implementation (not a deciding investment factor).

Context to assist with the Final Roadmap and Action Plan:

- In addressing air quality - rather than to decarbonise - at a number of large European and American ports investment by government has been made in onshore power. The high capital and operational



expense of onshore power, with minimal cost-recovery capacity, has required government support for these projects

- power usage is dependent on the vessel type and on the method of discharge
- self-unloading bulk carriers can use extensive power at berth (more than bulk carriers) - power transfer from the port-side infrastructure to the ship
- cruise vessels require significant power at berth compared to bulk carriers. The rise in domestic focussed cruises means the forward projection of cruise vessel power draw at Australian ports they visit is required
- microgrids outside the Australian Energy Market Operator's regulation require focus relating to capacity to facilitate onshore power
- National GreenPower accreditation program rules on purchasing GreenPower for an embedded network are limiting. If green energy purchased could be passed from ports to onsite tenants using electricity within a port's grid this would be beneficial. Trials by ports and/or equipment and engine manufacturers presents the best research to understand the equipment and procedural standards to apply.

Ports Australia understands these comments will be useful in developing the Electricity and Energy Sector Plan and Net Zero Plan.

Green Shipping Corridors

Ports Australia supports the expansion and strengthening of Green Shipping Corridors (GSC).

Agreements including the Clydebank Declaration for Green Shipping Corridors, the bilateral trade agreement with Singapore and the Green Shipping Challenge are important steps in affirming Australia's commitment to sustainable shipping corridors.

Ports Australia stands ready to support the Australian Government contributions at forums including the International Maritime Organization (IMO) in securing similar cooperative agreements with other trading partners as opportunities arise.

Ports Australia encourages clear articulation by the Federal Government of pursuable options for Green Shipping Corridors within the Final Roadmap and Action Plan – whether those relate to specific goods or shipping routes.

Port-Road-Rail Interfaces and Intermodal Options

As the Consultation Paper notes rail moves 57% of national freight and as a low carbon emission transport mode: *'Increasing the share of freight moved on rail can also contribute to reducing freight emissions.'*

There are substantial benefits to both the environment and the community of a further shift to freight movements on rail as opposed to road. As the Consultation points out a 2020 Deloitte Access Economics report commissioned by the Australasian Railway Association, highlights an annual average of \$71.9 million may be saved by a one per cent (1%) shift of freight from road to rail in accident, emission and health costs. *(Value of Rail 2020, Australasian Railway Association)*

Intermodal terminals and freight consolidation centres are critical to successful transition to freight rail. Ongoing planning approval challenges and the incursion of housing into established industrial lands have highlighted the future fragility of intermodal terminals and freight consolidation.

Due to urban consolidation, non-supportive local government planning and approval processes, and competing infrastructure construction, the unboxing of shipping containers of imported goods for delivery to their ultimate destination is being pushed to industrial lands further outside metropolitan areas. This is both inefficient and encourages more short, carbon intensive truck movements – what this Paper labels *'the last kilometre of freight distribution'*.



Ongoing federal and jurisdictional government commitment to identify and quarantine lands – whether for intermodal terminals, fuel and energy storage, freight consolidation centres and port expansion purposes – is an absolute requirement.

Ports Australia supports Federal Government focus on these challenges within the Final Roadmap and Action Plan. These issues could also be incorporated into our proposed Scoping Study to identify and outline what will be varied expectations of federal, state/territory and local governments on bunkering at Australian ports.

Offshore and Onshore Energy Supply Projects and Renewable Energy Zones

The significant infrastructure expansion at ports to support offshore and onshore wind projects, for example at the Port of Gippsland, presents an opportunity for renewable energy zones to be incorporated into development plans from the beginning.

Ports Australia notes the Federal Government investment in clean hydrogen industrial hubs near ports for domestic use and export, which include vessel fuelling. Offshore electricity infrastructure presents opportunities to support faster decarbonisation of the maritime sector.

In 2022 the Federal Government identified six (6) priority areas for offshore wind: Gippsland, the Hunter, Southern Ocean Victoria, the Illawarra, Bass Strait Tasmania, and Indian Ocean off Bunbury. It is anticipated wave and tidal energy infrastructure zones will join these zones in decarbonising electricity grids.

Federal and jurisdictional government funding for innovative decarbonisation projects associated with the ports supporting these priority areas needs to be considered; including support for Renewable Energy Zones – combining renewable energy infrastructure with port infrastructure expansion – to appropriately leverage the opportunities from renewable energy.

Australian governments have drawn together complex infrastructure governance and delivery bodies that will provide valuable insight into successful models, for example SOCOG for the 2000 Sydney Olympics.

Identifying the Responsible Entity/Source of Emissions

Recognising how ownership and operation of port land, infrastructure and facilities, and the businesses and structures to support them, including tenant stevedores, towage and pilotage, differs across the port sector will be essential to shaping a suitable and practical plan for securing trade in and out of Australia across the national landscape within the Net Zero path under the Final Roadmap and Action Plan.

A considerable but mitigatable risk is held by an entity who is held responsible for obligations outside of their control. In drafting amendments to legislative, regulatory and investment frameworks a critical and overarching imperative is identifying the appropriate responsible entity to assign positive obligations and associated accountability.

A responsible entity needs to be the entity best placed to identify, manage, report and act on carbon emissions from physical and operational assets. The imposition of rights, responsibilities and financial costs should be assigned on the entity to which the responsibility should appropriately be held.

Landlord ports particularly may not have the degree of insight and would be unable to respond to decarbonisation obligations; as well as ensure the accuracy and quality of reporting to the Australian Government of changes at the port facility owner and operator level.

Ports Australia remains concerned this may undermine the intent of decarbonisation if not identified and addressed. It will also carry an unnecessary impost on other entities named as the responsible entity who do not have the control needed to comply with obligations.

As noted earlier, within their limitations BITRE, the ABS, AMSA (and ATSB for some safety data) are appropriate data sources. Data on current maritime emissions and their source needs to be available and systematically updated to support decarbonisation. Ports Australia encourages all departments and



agencies to work with ports and the maritime sector to ensure reforms and reporting fall to each appropriate responsible entity.

Ports Australia and its members look forward to receiving the Transport and Infrastructure Final Roadmap and Action Plan in due course.

ENDS
July 2024



Ports Australia

