46th PMTA 'Charting a Sustainable Course: Pioneering Green Practices for Pacific Ports and Trade'

Ports Australia: Assisting the ports sector's contribution to the development of a sustainable and greener maritime supply chain

July 2024

Ports Australia

Australian Government actions working with industry on Net Zero

Transport and Infrastructure Net Zero Consultation Roadmap

Timeline of transport decarbonisation technology pathways

	To 2030	2030 – 2040	2040 – 2050
Light vehicles	**Battery electric passenger vehicles** mass market adoption	**Expansion of next-generation passenger** and advancements for light commercial vehicles	**Battery electric** available for all light vehicle tasks
	Hydrogen fuel cell demonstration	**Hydrogen fuel cell** adoption	**Hydrogen fuel cell** where electrification is not feasible
Heavy vehicles	**Battery electric** and **hydrogen fuel cell** demonstration	**Battery electric** and **hydrogen fuel cell** adoption accelerates	**Battery electric** and **hydrogen fuel cell** mass market adoption and efficiency improvements
	LCLFs blended in existing fleet use	**LCLFs** support long distance, hard to electrify cases to transition	**LCLFs** where **battery electric and hydrogen fuel cell** are still advancing / not feasible
	Synthetic LCLF R&D		
Rail	**Passenger rail electrification**		
	Hybrid and battery electric freight rail deployed	**Hybrid, battery electric and hydrogen fuel cell** mass market adoption and efficiency improvements	
	Hydrogen fuel cell demonstration		
	LCLFs blended in existing fleet use	**LCLFs** support long distance, hard to electrify cases to transition	**LCLFs** where **battery electric and hydrogen fuel cell** are still advancing / not feasible
	Synthetic LCLF R&D		
Maritime	**Battery electric and hybrid propulsion** demonstrated and deployed for short range vessels	**Short range battery electric vessels** deployed	**Short range battery electric vessels** adoption and efficiency improvements
	LCLFs blended in existing fleet use	**LCLFs** deployed for long range vessels	**LCLFs** for majority of long range vessels
	Synthetic LCLF R&D	**Continued** synthetic LCLF investment	
Aviation	**Battery electric** and **hydrogen fuel cell** development	**Battery electric** and **hydrogen fuel cell** for short range flights demonstration	**Battery electric** and **hydrogen fuel cell** for short range flights deployed
	LCLFs blended in existing fleet use	**LCLFs** for short, medium and long haul flights deployed in the market	**LCLFs** for majority of medium and long haul flights
	Synthetic LCLF R&D	**Continued** synthetic LCLF investment	
Transport infrastructure	Domestic **low and zero carbon concrete, alumina** and **steel** industries emerging – used in transport infrastructure	Domestic **low and zero carbon concrete** and **steel** industries developing	**Low** and **zero carbon concrete** and **steel** is available for **infrastructure projects**
Enabling systems	**LCLF** optionality in existing fleets	**LCLF** used by transport modes that have limited electrification opportunities (aviation, heavy vehicles and maritime)	
	LCLF certification stimulates further demand		
	Optimisation of **intermodal infrastructure** developing	**Increased low and zero carbon options** to transport goods	
	Continued investment in **active and public transport infrastructure**	**Sustained investment and increasing use** of public transport	

■ Requires development to be feasible ■ Demonstrate scale and commercial viability ■ Deploy commercially ready technology ■ Used in limited, tailored applications
ⓘ LCLFs are also in the Electricity and Energy Sector Plan

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

Low Carbon Liquid Fuels

A Future Made in Australia: Unlocking Australia's low carbon liquid fuel opportunity

Consultation Paper

Australian Government
Department of Industry, Science and Resources

National Battery Strategy

Leading the charge towards a competitive and diverse Australian battery industry

May 2024

/NationalBatteryStrategy

Maritime Emissions Reduction National Action Plan (MERNAP)

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

MERNAP Issues Paper: Energy Sources and Technologies

December 2023

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

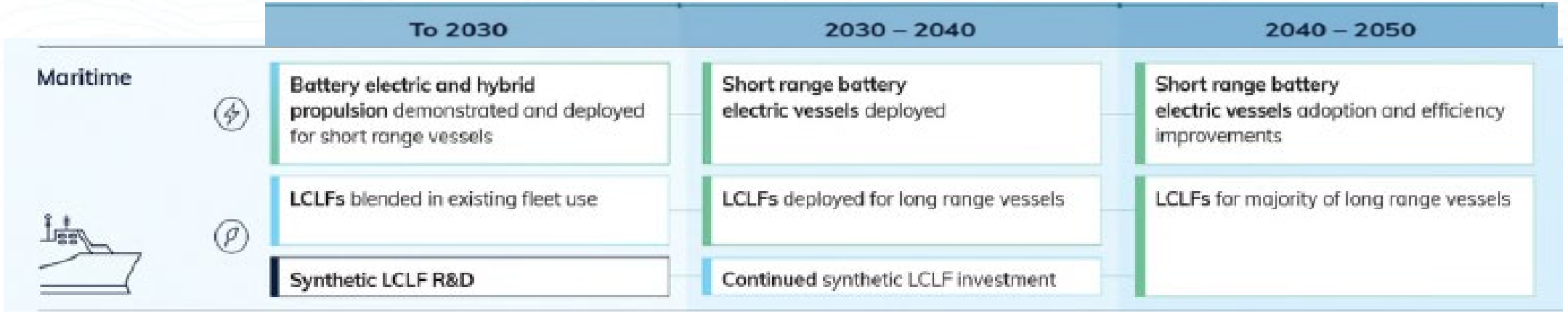
Review of the National Freight and Supply Chain Strategy

Review Report

May 2024

Transport and Infrastructure Net Zero Consultation Roadmap

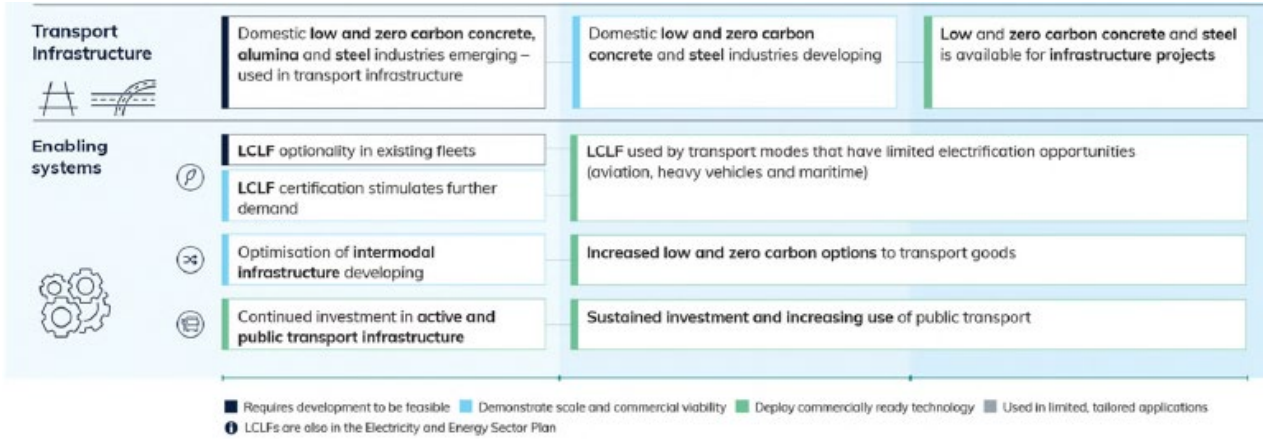
Timeline of maritime decarbonisation technology pathways



The Australian Government legislated to reduce national emissions by 43% on 2005 levels by 2030 and net zero by 2050.

The Consultation Roadmap seeks feedback on potential pathways for transport and transport infrastructure to support economy-wide net zero; and actions or policies the Australian Government will need to take to support these potential pathways.

It will inform final Transport and Infrastructure Net Zero Roadmap and Action Plan to be released later in 2024.



https://www.infrastructure.gov.au/sites/default/files/documents/timeline-of-transport-decarbonisation-technology-pathways.pdf

Maritime Emissions Reduction National Action Plan (MERNAP)

In developing a National Transport and Infrastructure Net Zero Roadmap and Action Plan, the Australian Government is working closely with the maritime industry to develop a Maritime Emissions Reduction National Action Plan (MERNAP).

The MERNAP will set the strategic direction and recommend actions to decarbonise our maritime transport sector, as well as contribute towards reducing international shipping emissions.

Federal agencies are working on the final MERNAP framework, to be delivered to the Federal Government this year.

The framework is informed by stakeholder responses to four Issue Papers:

- Regulation and Standards
- Energy Sources and Technologies
- Skills and Training
- Green Shipping Corridors and Partnerships

Getting MERNAP and Net Zero right

Align with International Direction - Needs to be consistent with the international direction and standards related to maritime decarbonisation and alternative fuels, including the IMO.

Regulatory Certainty is Necessary - To facilitate maritime decarbonisation investment led by the market, not dictating or mandating specific initiatives, fuels or mechanisms.

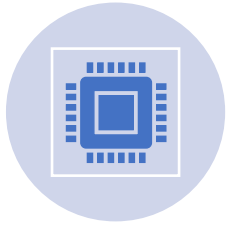
Alternative Fuel Supply Chains Need to Be Understood - Map the supply chain of each feasible alternative fuel to understand the extent each is viable for shipping and to understand the opportunities for production and supply in Australia and the region - enabling measured and effective investment.

Mechanisms to Support Investment in Decarbonisation - Government financial assurance to encourage industries to invest in alternative fuels and maritime decarbonisation initiatives, where the market does not yet exist. Direct measures including government underwriting initial offtake agreements for alternative fuels and tax incentives for decarbonisation initiatives.

Protecting Critical Port Infrastructure

Unlawful Interference, Cybersecurity Reporting and Natural Hazards

The Government is looking at expanding what is unlawful interference and requiring reporting within specific timeframes of significant cyber security threats.

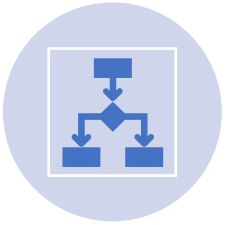


Distinct approaches need to be taken between physical and cyber infrastructure to reflect dynamics of security threats and risk mitigation.

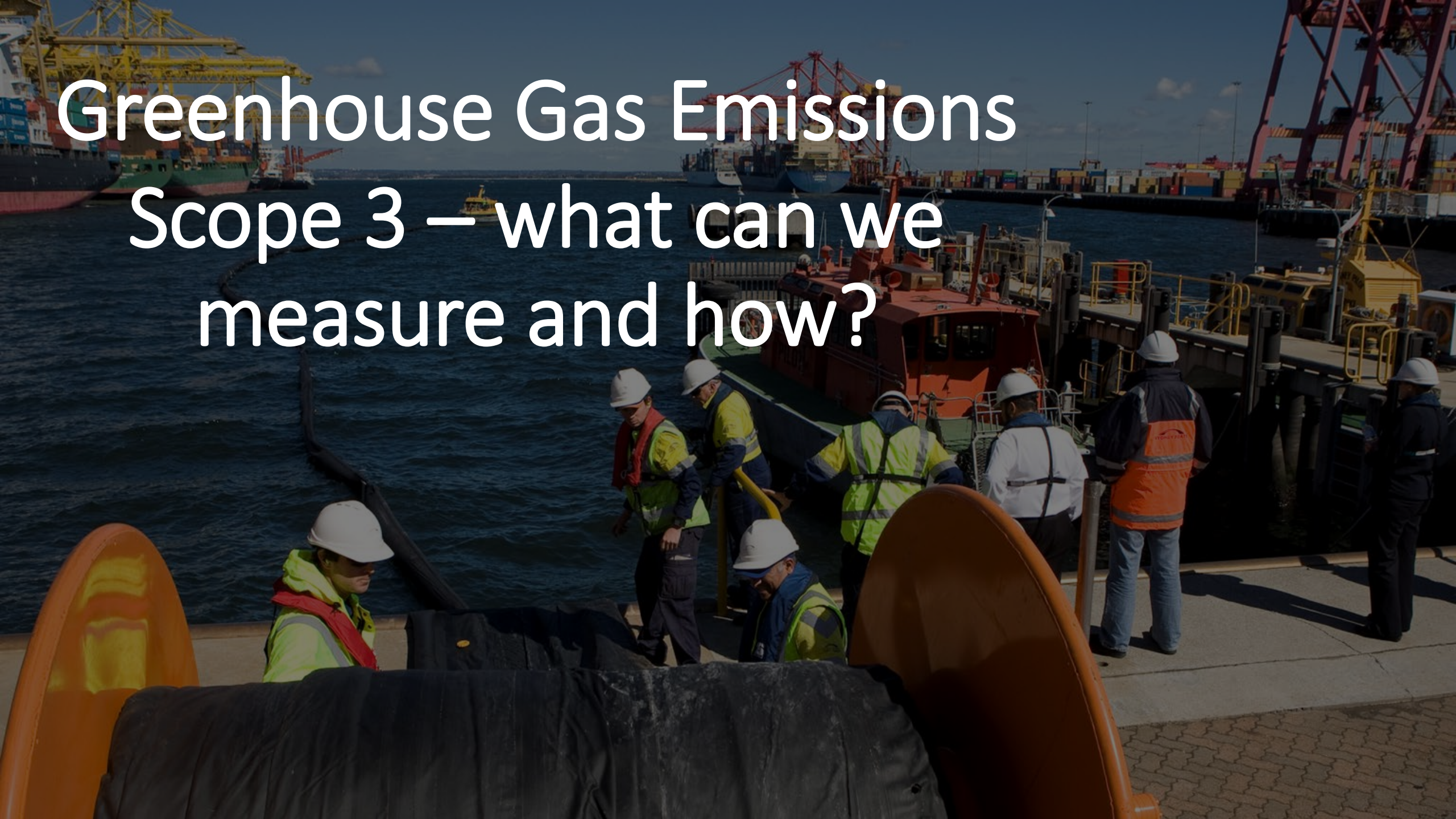
Outsourced IT services is an industry standard; making direct oversight and monitoring problematic.

Need to respect the powers of state and territorial police forces to act on threats to safety, including protests, blockades, cyberattacks and terrorism.

In preparing for natural hazards, industry already complies with state/territory emergency management plans and regulations. They have contingency plans, business continuity plans and conduct emergency exercises.



Replicating information across multiple documents without a clear need will risk updates not being reflected in all documents.



Greenhouse Gas Emissions Scope 3 – what can we measure and how?

The path to measuring GHG Footprint

GHG Scope 3 emissions

Key underpinning frameworks for Scope 3 guidance

- National Greenhouse and Energy Reporting (NGER) Scheme is basis of all regulatory-based mandatory and voluntary Scope 1 and Scope 2 GHG reporting in Australia
- GHG Protocol is foundational, global standardised framework for Scope 1, 2 and 3 GHG emissions measurement
- Ports may choose or be required to align with additional standards.

Ports may not need to report under NGER but could do so voluntarily, or use NGER measurement guidance for their own emissions estimation purposes.

Upstream and Downstream Scope 3 Emissions

Purchased goods and services	Upstream emissions of production of goods used by port
Capital goods	Embodied emissions in infrastructure builds, provided by the contractor and suppliers
Fuel and energy related activities (not inc in Scope 1 or 2)	Upstream emissions of fuel or electricity used by port
Upstream transportation and distribution	Upstream transportation of goods (eg equipment) purchased by port
Waste generated in operations	Emissions from transport and treatment of waste, and fugitive emissions from waste itself
Employee commuting & Business travel	Employee commutes to and from port and transport for business related activities
Upstream & Downstream leased assets	All tenant emissions included in downstream
Downstream transport and distribution	Transport of goods/services produced or sold by port
Processing of sold products	Processing of any goods/services produced or sold by port
Use of sold products	Use of any goods/services produced or sold by port
End-of-life treatment of sold products	End-of-life treatment of any goods/services produced or sold by port
Franchises and Investments	


Reduce the Hum

Maritime Noise

As ports become larger, busier, more complex, and more widespread, port operators, authorities, managers and regulatory authorities are increasingly involved with managing the port area and its interface with the local community.

Ports are also subject to ‘community encroachment’ with residential development in areas close to port lands.

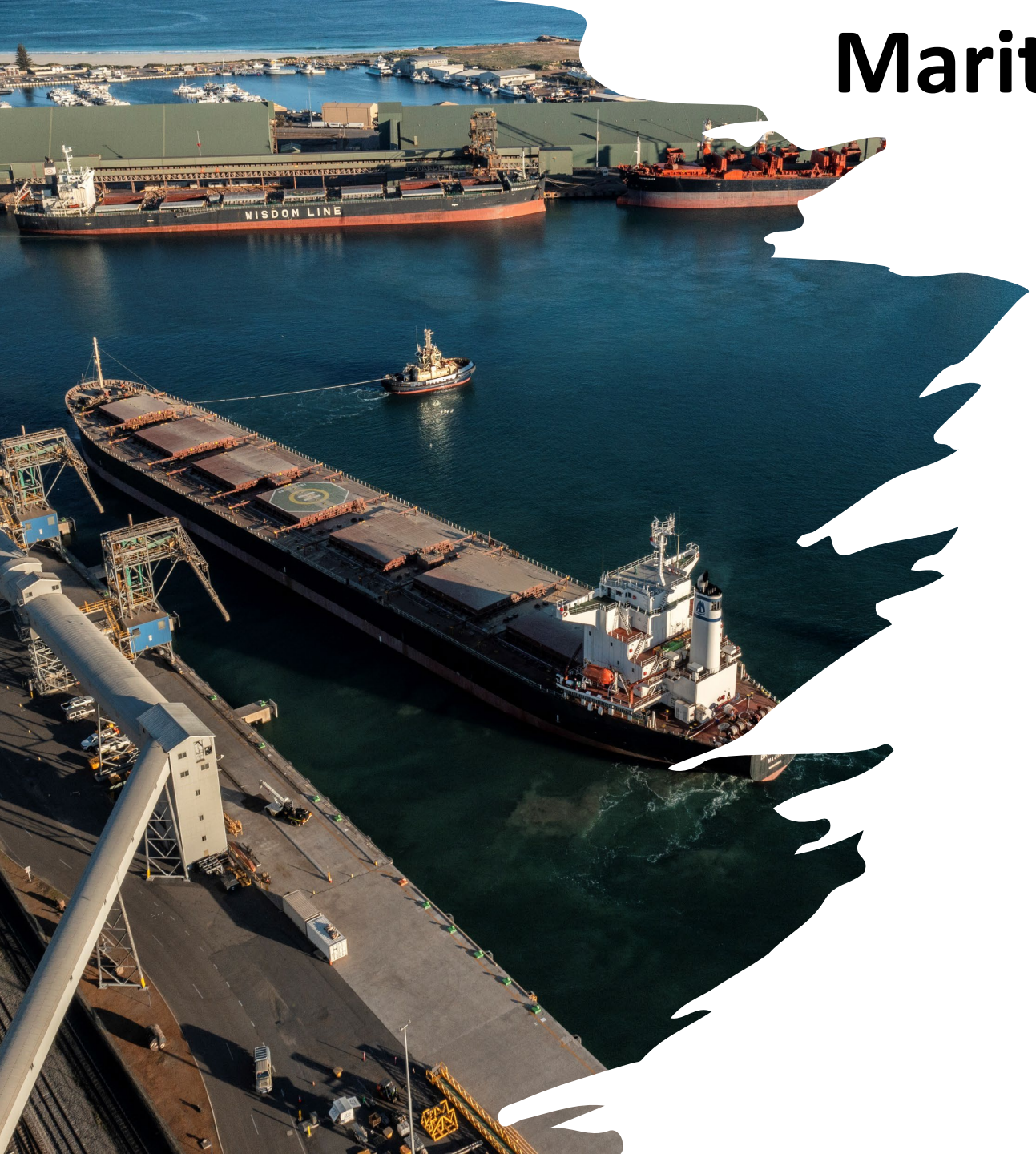
There is little guidance on good practice for port authorities, tenants, and customers when managing noise.

Ports Australia has developed guidance for large commercial ports in Australia and New Zealand which includes frameworks for noise management at ports.

Australian Government Review of Underwater Noise Guidelines

The Department of Climate Change, Energy, the Environment and Water is working on draft National Anthropogenic Underwater Noise Guidelines, Technical Background Report, and EPBC Act Policy Statement 2.1. An expert noise working group is facilitating input so it is fit for purpose and sets key approaches to manage impacts to protected marine species from anthropogenic underwater noise.

Maritime Noise



Understand Noise

- Port Operations
- Tenants, Contractors and other port users
- Noise Monitoring
- Prepare Noise Model and Contour Maps

Mitigate and Manage

- Good Practice Approach – NEPTUNES / NoMEPORTS, etc
- Master Plan and Land-use Plans for Port and Surrounding Lands
- Noise Management Plan
- Ship Noise
- Staff Awareness and Training
- Equipment Choice
- Safety Alarms and Warning Signals

Engagement

- Communication
- Ongoing Community Engagement
- Complaint Response

Ports Australia 2024 Conference

Hobart • 29-31 October 2024

MONDAY 28 OCTOBER

11:00	AUSTRALIAN MARITIME COLLEGE TOUR, LAUNCESTON
14:00	COACH TRANSPORT FROM AMC TO HOBART

TUESDAY 29 OCTOBER

13:00	ANNUAL GENERAL MEETING (members only)
13:30	GENERAL MEETING (members only)
15:00	HOBART PORT TOUR
17:00	REGISTRATION Hotel Grand Chancellor
18:00	WELCOME RECEPTION IXL Tasmanian Art Gallery

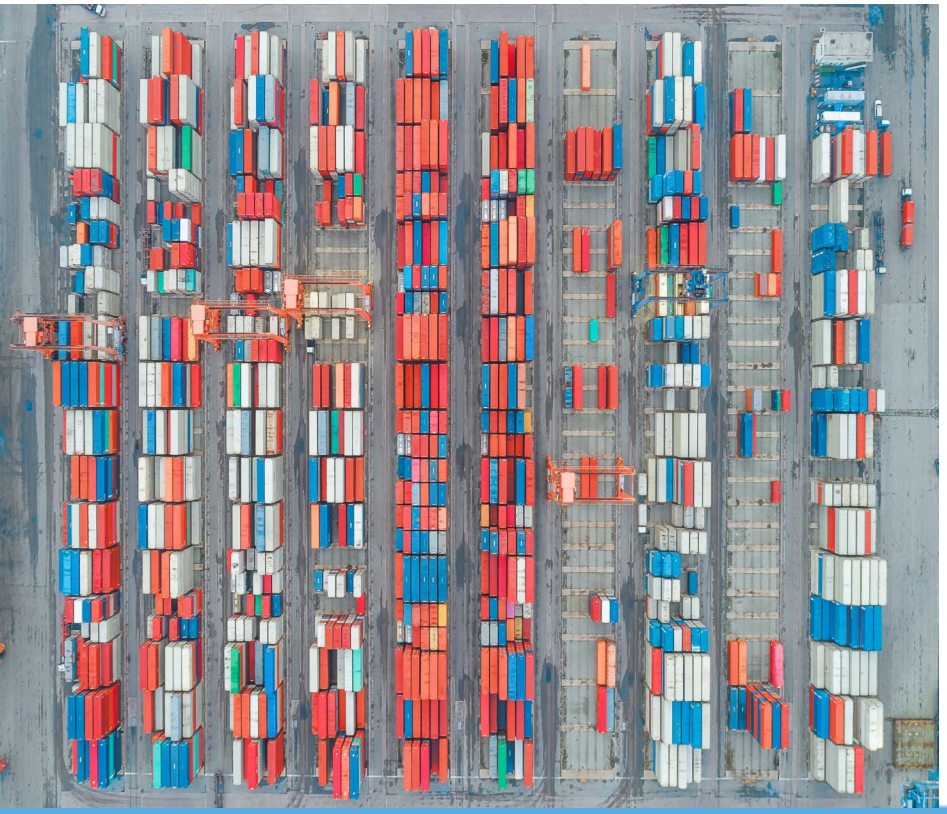
WEDNESDAY 30 OCTOBER

08:00	REGISTRATION Hotel Grand Chancellor
08:30	WELCOME TO DELEGATES AND OPENING
	WELCOME TO COUNTRY
08:40	OPENING ADDRESS: GOVERNMENT INSIGHTS
INTERNATIONAL MARITIME LANDSCAPE	Chair: Mike Gallacher, Ports Australia CEO
09:00	Jens Meier IAPH President and Hamburg CEO
	Patrick Verhoeven IAPH Director
10:15	Morning Tea
REGIONAL COLLABORATION FOR SHARED SUCCESS	Chair: Mike Gallacher, Ports Australia CEO
10:45	Graeme Sumner Lyttleton Ports Corporation
	Hon. Seveniini Toumo'ua Minister for Infrastructure, Kingdom of Tonga IMO Pacific Nations Office
FUTURE OF PORT GOVERNANCE: TRENDS & STRATEGIES FOR TOMORROW	
12:00	Simon Mitchell AICD
	Marcus John TT Club
	Speaker TBA Secolve
	Professor Nick Bartner Griffith University
13:00	LUNCH
GREEN SHIPPING AND DECARBONISATION	Chair: Phil Holliday, CEO, Port Authority of NSW
13:45	Rashpal Bhatti BHP Vice President Maritime and Supply Chain Excellence
15:00	AFTERNOON TEA
ECONOMIC & GEOPOLITICAL LANDSCAPE: PAST, PRESENT & FUTURE	Saul Cannon, Port of Melbourne CEO
15:15	PANEL SESSION Merriden Varrall KPMG Geopolitics Partner David Woods DFAT Chief Economist
16:45	CONFERENCE DAY 1 CLOSE
18:30	GALA DINNER Glen Albyn Estate

THURSDAY 31 OCTOBER

08:50	INTRODUCTION DAY 2
09:00	DAY 2 OPENING ADDRESS - PERSPECTIVES FROM THE OPPOSITION Senator the Hon Bridget McKenzie
MAXIMISING AUSTRALIA'S SUPPLY CHAIN EFFICIENCY	
09:30	Christine Holgate Team Global Express CEO
	Shane Walden ANL CEO and Shipping Australia Director
	Wayne Johnson ARTC CEO and Managing Director
10.30	MORNING TEA
FUTURE ENERGY & PORTS	Chair: Sam McSkimming, Pilbara Ports
12:00	LUNCH
BEYOND ON THE HORIZON: OFFSHORE WIND	Chair: TBA
13:00	Malcolm Wise Australian Maritime College Principal
	TBA Ramboll
14:00	CONFERENCE CLOSE

VISIT PORTSAUSTRALIA.COM.AU FOR THE LATEST PROGRAM UPDATES



Ports Australia's Port Operations Committee

Tues 10 – Wed 11 September 2024

Starts 9am on 10 Sept with the first session focusing on responses to lithium battery fires onboard and port side

Panel:

State fire experts, Wilhelmsen, TT Club, Australian Maritime Safety Authority, Australian Transport Safety Bureau and others.

Venue Voco Brisbane City Centre Hotel, Brisbane City QLD

Full agenda details will be available shortly

Thank you

Ports Australia