

GREEN PORTS WEBINAR SERIES #7
Future Fuels, Shore Power, and Energy Transition Readiness

Thursday, 21 May 2026
2:00-3:00 PM GMT+8

Registration Link: https://adb-org.zoom.us/webinar/register/WN_dHcWNRiUSieOedbuFJZL9w - /registration

Ports are critical nodes in the maritime supply chain and play an important role in reducing emissions, improving energy efficiency, and supporting the broader energy transition. Port-related emissions come not only from vessels at berth but also from cargo handling equipment, vehicles, land-based power systems, and other port operations.

As regulations, market expectations, and energy security concerns drive the shift toward cleaner fuels and technologies, ports are increasingly expected to prepare for low- and zero-carbon operations. This includes investing in future fuels, shore power, electrification, renewable energy integration, and clean energy logistics.

This webinar will focus on:

Future Fuels and Bunkering

Transitioning to low- and zero-carbon fuels for maritime and port applications, including alternative fuels such as hydrogen, ammonia, and methanol, and transitional fuels such as liquefied natural gas. The discussion will also cover fuel storage, handling and safety systems, bunkering infrastructure, logistics, and supply chain integration.

Shore Power

Providing grid-based electricity to vessels at a berth to reduce emissions from onboard auxiliary engines. This includes high-voltage shore connection systems, cable management, vessel interface systems, grid interconnection, substation upgrades, and vessel retrofit considerations.

Energy Infrastructure and Transition Readiness

Developing the power systems and infrastructure required to enable large-scale electrification and low-emission technologies, including grid capacity assessments, renewable energy integration, energy storage systems, load management, and electrification planning.

Clean Energy Logistics and Industrial Capability

Enhancing port infrastructure to support the handling, staging, and distribution of clean energy components and materials, including wind turbine components, battery and energy storage systems, electric vehicle supply chains, heavy-lift infrastructure, laydown areas, and specialized storage and safety systems.

The topic is increasingly important for maritime sustainability, environmental stewardship, fuel diversity and security, cost reduction, and regulatory compliance. While ports are at different stages

of readiness, all will need to respond to evolving requirements and opportunities linked to the energy transition.

Session Objectives

- Provide an overview of future fuels, shore power, and energy transition readiness in ports.
- Improve awareness of the range of practices and technologies being adopted internationally.
- Discuss relevant regulations, targets, and market drivers.
- Examine key challenges in preparing ports for the energy transition.
- Share practical examples, innovations, and lessons that may be relevant for Southeast Asia.

This webinar is the seventh in the Green Ports Webinar series, which highlights how leading ports are addressing environmental challenges and how these approaches can be adapted across Southeast Asia. It is organized by the ASEAN Catalytic Green Finance Facility (ACGF), which is managed by the ASEAN Power Grid and Special Funds Unit of ADB's Southeast Asia Regional Department. It is hosted by ADB's Southeast Asia Development Solutions (SEADS) platform and Development Asia.

ACGF is an ASEAN Infrastructure Fund initiative that supports governments in Southeast Asia to prepare and finance infrastructure projects that advance environmental sustainability and strengthen climate resilience. ACGF is owned by ASEAN governments and ADB.

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AGENDA

Time	Topic & Speaker
3 minutes	<p>Welcome and Brief Overview <i>Jackie Spiteri</i> <i>Managing Director, SESG</i></p>
	<p>Panel Presentations:</p>
10 minutes	<p>Low Carbon Liquid Fuels Ports Australia Environment, Planning & Sustainability Committee <i>Mike Straughton</i> <i>Director, Wolfe & Co.</i></p> <p>The presentation will discuss the role of low-carbon liquid fuels in maritime decarbonization, focusing on key regulatory drivers, available and emerging fuel technologies, and practical barriers to deployment. It will highlight how international regulations, particularly from the International Maritime Organization and the European Union, are shaping industry action, while cost, fuel availability, and policy uncertainty continue to affect wider uptake.</p> <p>Using the Port of Brisbane as a case study, the presentation will explore how ports are advancing renewable electricity, on-site solar power, and planned renewable diesel trials for dredging operations. It will also reflect on the opportunities and constraints of biofuel trials and the broader momentum toward low-carbon fuel adoption across the maritime sector.</p>
10 minutes	<p>Pioneering Shore Power in Australia: White Bay Cruise Terminal Shore Power Project <i>Catherine Blaine, Port Authority of New South Whales (NSW)</i></p> <p>The talk will provide an overview of the White Bay Cruise Terminal Shore Power installation project. It will cover the drivers behind Port Authority of NSW’s decision to implement the first shore power connection for cruise ships in the Southern Hemisphere and provide an overview of the project journey including risks, challenges, lessons learnt and upcoming milestones to meet the completion date of end of 2026. The talk will cover the global increase of shore power installations to respond to maritime decarbonization.</p>

10 minutes	<p>Clean Energy Logistics from the Port of Newcastle <i>Wayne Mabbott</i> <i>Logistics Manager, Port of Newcastle</i></p> <p>The presentation will provide insights on the practical challenges and opportunities in energy infrastructure, transition readiness, and clean energy logistics from the Port of Newcastle, Australia. It will discuss the development of power systems and infrastructure required to enable large-scale electrification and low-emission technologies, as well as enhancing port infrastructure to support handling, staging, and distribution of clean energy components and materials. The talk will focus on practical challenges and readiness gaps, particularly in battery and energy storage logistics, providing case study examples. It will also touch on handling of oversized cargo (e.g., wind turbine components) and specialized storage and safety systems for new materials.</p>
15 minutes	<p>Moderated Discussion (two questions per panellist) <i>Facilitated by Jackie Spiteri, SESG, Managing Director</i></p>
2 minutes	<p>Closing <i>Jackie Spiteri, SESG, Managing Director</i></p>

Biographies

	<p>Mike is a translator between technical and commercial languages, turning good ideas into investable projects and ventures. Mike is focussed on supporting clients to realise the value generated by connecting traditional technical and commercial silos, think systemically across their business, and implementing the organisational change necessary to respond to the evolving business and climate conditions. The ever-increasing sector coupling across energy, waste and water represents a major opportunity for industrial development and a threat to traditional thinking and approaches. Recognised as an inspiring leader and sought out as a mentor, Mike is skilled at identifying and developing talent and fostering the capability and resilience required to thrive in challenging environments. Mike was Chair of H2Q, the hydrogen industry body for hydrogen and associated derivatives in SE Queensland, collaborating with other clusters and hubs in the hydrogen sector at State and national levels. He successfully saw the integration of H2Q into the Smart Energy Council.</p>
<p>Mike Straughton Director, Wolfe & Co.</p>	
	<p>Catherine Blaine is the Acting Group Executive Assets, Infrastructure and Development and Chief Risk Officer at the Port Authority of New South Wales. She leads the planning and delivery of major port infrastructure across NSW, overseeing complex capital works and asset programs in live operating environments. Catherine is actively involved in national and international port forums, including through Ports Australia, where she regularly contributes to industry working groups on major infrastructure and sustainability initiatives. She also plays a leadership role with the Permanent International Association of Navigation Congresses (PIANC), serving on the Board of PIANC Australia & New Zealand, contributing to the development of global best practice guidance for sustainable and resilient maritime infrastructure.</p>
<p>Catherine Blaine General Manager, Projects, Port Authority of New South Wales</p>	
	<p>Wayne Mabbott is the Senior Manager Terminals and Logistics at the Port of Newcastle, where he leads Port logistics coordination and operational efficiency across one of Australia's largest ports.</p> <p>With more than a decade at the Port, Wayne has held a range of roles spanning trade development, cargo logistics and operational performance, contributing to the Port's ongoing growth and diversification.</p> <p>Prior to joining the Port, Wayne held senior operational roles with Qube Ports & Bulk, bringing extensive experience in</p>
<p>Wayne Mabbott Logistics Manager, Port of Newcastle</p>	

	<p>stevedoring, port operations, supply chain logistics and stakeholder coordination.</p> <p>He is known for his practical, solutions-focused approach and deep understanding of port and freight systems.</p>
 <p>Jackie Spiteri Managing Director, SESG</p>	<p>Jackie Spiteri is an experienced sustainability professional with over 18 years in the maritime and infrastructure sectors. She is the Founder and Managing Director of SESG, a specialist advisory firm helping organisations navigate the evolving sustainability and reporting landscape through tailored strategies, implementation, and education.</p> <p>Jackie has served in leadership roles including Board Member of PIANC ANZ and Chair of Ports Australia’s Environment Planning and Sustainability Working Group. She is also an accredited Lead Auditor and the only Green Marine verifier in the Asia-Pacific region.</p> <p>Her career highlights include developing sustainability financing frameworks enabling over \$750 million in linked debt, contributing to the ASEAN Taxonomy V3 and ongoing work on V4, and leading the creation of KubeNest, an innovative sustainability software platform.</p>