



Electrification of Harbour Craft and Ferries in Singapore

GBA Clean Energy Supply Chain Conference
23.04.2025



Singapore Green Plan 2030



Charting Singapore's Net Zero Future

Achieve net zero emissions by 2050

Long-Term Low-Emissions Development Strategy (LEDS)

**Reduce 2030 emissions to 60 MtCO_{2e}
after peaking emissions earlier**

2030 Nationally Determined Contribution (NDC)



Maritime Singapore – Decarbonisation Blueprint – Working Towards 2050



Maritime Singapore – Decarbonisation Blueprint – Working Towards 2050



FOCUS AREA 2

DOMESTIC HARBOUR CRAFT

By 2030, MPA aims to reduce absolute emissions from the domestic harbour craft fleet by 15% from 2021 levels, through the adoption of lower-carbon energy solutions such as blended biofuel, LNG, diesel-electric hybrid propulsion, and full-electric propulsion.

By 2050, MPA aims for the harbour craft fleet to halve 2030-level emissions by transitioning to full-electric propulsion and net zero fuels.

Hydromover



“Goal Zero” Consortium:
to develop Singapore’s first fully electric harbour craft.



Hydroglyder

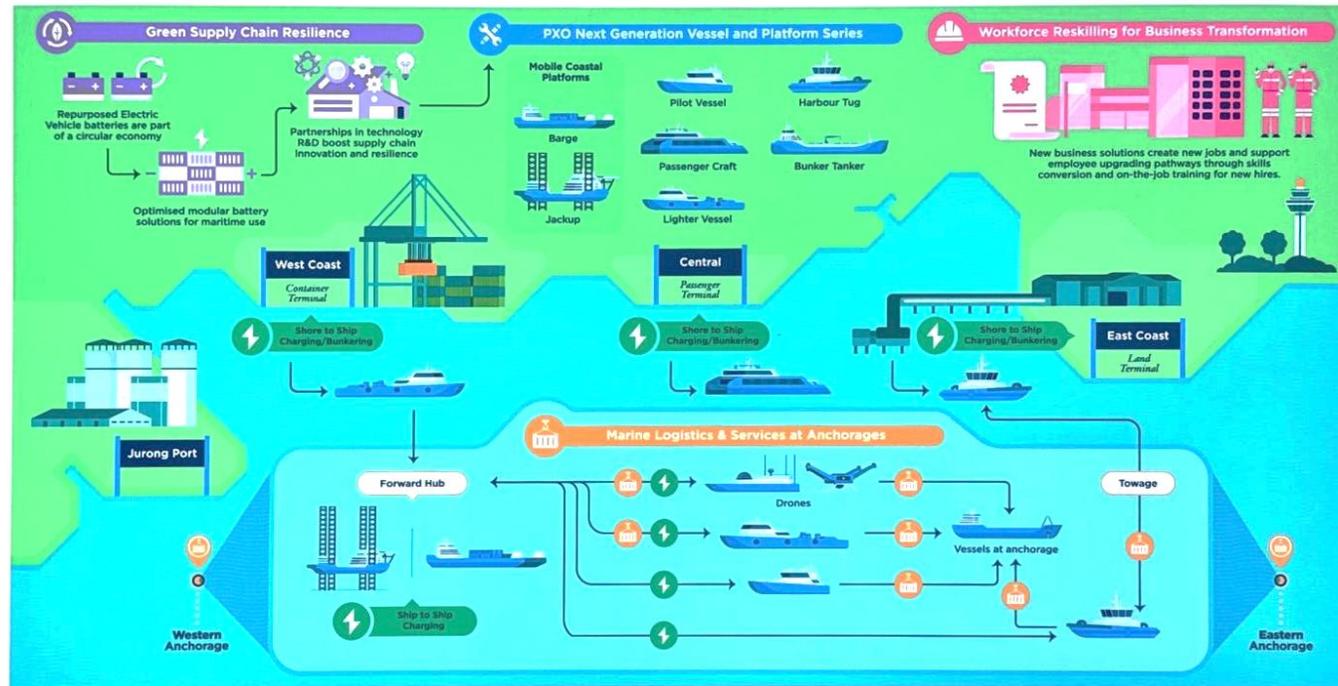


CSA – Coastal Sustainability Alliance

Key targets and benefits of creating Singapore's Coastal Sustainability Ecosystem

by Coastal Sustainability Alliance (CSA)

- Green Supply Chain Resilience**
Build comprehensive supply chain, charging infrastructure and capabilities with SMEs.
- PXO Vessel and Platform Series**
Design, build and deploy PXO vessels by 2025. Vessels to achieve up to 50% reduction in carbon emissions.
- Electric Charging**
Charge PXO vessels through a network of shore and mobile e-charging points.
- Workforce Reskilling for Business Transformation**
Reskill, redeploy employees in enhanced job roles to support new business growth areas.
- Marine Logistics & Services**
Reduce marine traffic by 20% through fleet optimisation, floating platforms in anchorage, and drones for last-mile deliveries.



CSA Members:

The Coastal Sustainability Alliance (CSA) aims to build a next-generation maritime ecosystem to decarbonise, electrify and transform Singapore's maritime industry towards a circular economy. The ecosystem comprises electric vessels, shore and marine charging platforms, battery repurposing, renewable energy sources, energy-efficient logistics and innovative engineering solutions for future growth opportunities.



Illustration courtesy of CSA.

CSA – PXO-EXL-1 “Voltai”



Pyxis X Tron



Pyxis Harbour Craft DC Charging



Pyxis R Ferry



Penguin – Shell Bukom Refinery



Shell Bukom Refinery – DC Charging



Penguin – Shell Bukom Refinery



For more info:



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