

# 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)

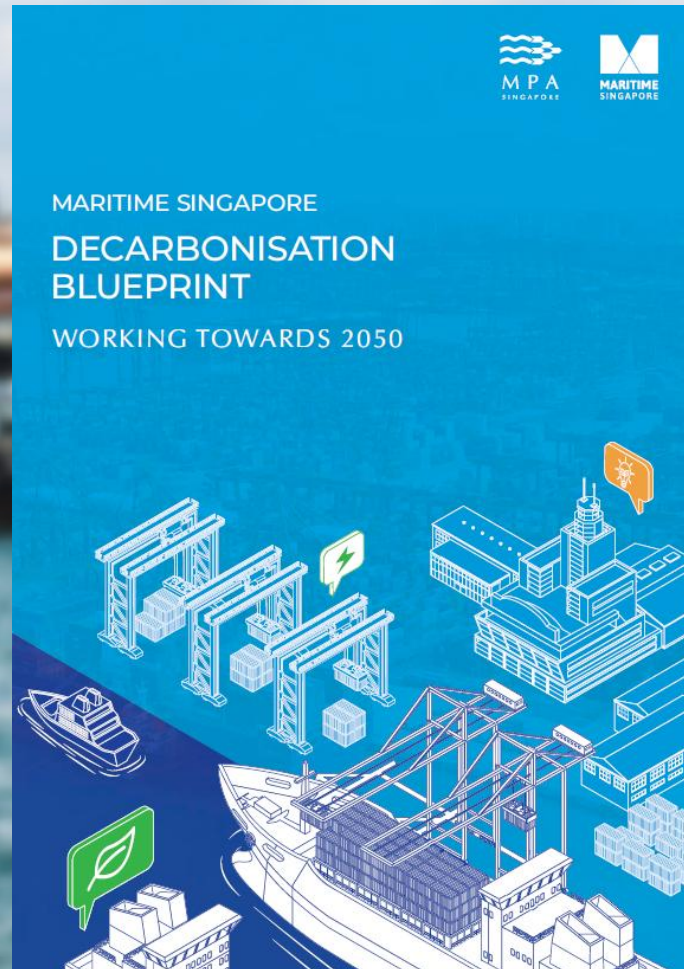
**Reduce 2030 emissions to 60 MtCO<sub>2</sub>e  
after peaking emissions earlier**

2030 Nationally Determined Contribution (NDC)







# Maritime Singapore – Decarbonisation Blueprint – Working Towards 2050



# Maritime Singapore – Decarbonisation Blueprint – Working Towards 2050



## FOCUS AREA 2

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# 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

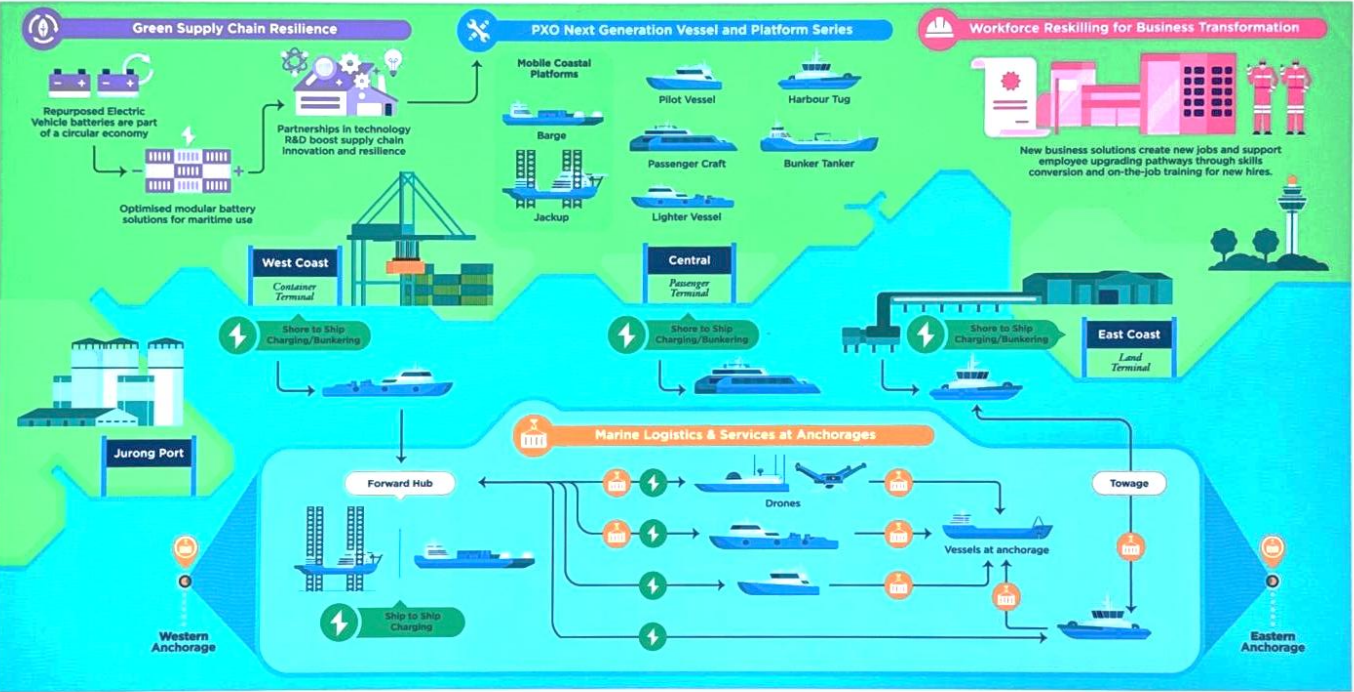


# CSA – Coastal Sustainability Alliance

## 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



Image credit: Penguin



For more info:



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your attention.**

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