



MEDIA RELEASE

Singapore, 11 July 2023 | **For Immediate Release**

Call for Expression of Interest to Design and Promote Adoption of Electric Harbour Craft in Singapore

The Maritime and Port Authority of Singapore (MPA) issued an Expression of Interest (EOI) on 10 July 2023 to invite interested parties to submit proposals to design and promote adoption of full-electric harbour craft (e-HC) in Singapore.

2. The Ministry of Transport announced at Committee of Supply debate this year that the harbour craft, pleasure craft and tug boat sectors would be required to achieve net zero emissions by 2050 in line with Singapore's national net zero ambitions. To support this goal, operators with new harbour craft plans should inform the MPA about their plans from January 2027, so that the designs can be adjusted if required. From 2030, all new harbour craft operating in the Port of Singapore will have to be fully electric, be capable of using B100 biofuel, or be compatible with net zero fuels such as hydrogen.

3. To promote wider and early adoption of e-HC, MPA intends to support harbour craft companies by providing e-HC engineering reference designs and safety standards to adopt, as well as helping the companies access more attractive financing solutions and lower the cost of production through aggregating overall demand for e-HC in the sector.

4. The EOI will allow MPA to assess and validate proposals for the best-in-class e-HC reference designs. These would include design standards and guidelines for vessel structure that is optimised for efficiency, integrated battery management and energy storage systems, and the essential safety systems that include emergency back-up, cybersecurity and firefighting capabilities. These reference designs will complement the e-HC engineering knowledge and local capabilities developed by the joint industry-research consortiums¹ supported by MPA and the Singapore Maritime

¹ Examples of MPA-Singapore Maritime Institute funded-consortiums include (i) Seatrium Consortium (formerly known as Keppel Offshore & Marine Consortium) which looks at retrofitting Eng Hup Shipping's 30 pax ferry to a fully electric vessel, and a developing a charging station with solid state transformer technology which will be trialed later this year; and (ii) the 'Goal Zero' consortium led by SeaTech Solutions with partners such as Yinson Green Technologies and Lita Ocean, to build the first full-electric lighter craft with battery swapping technology, to be trialled later this year.

Institute as well as other industry-led collaborations² on research and development of e-HC for various use cases.

5. To facilitate the development of green financing models for the development of the e-HC, the EOI will also invite proposals to demonstrate the commercial viability of various business models based on an aggregated harbour craft fleet to meet the demand at the Port of Singapore. An aggregated fleet aims to improve utilisation rates, encouraging more companies, especially those with smaller fleet size, to electrify their harbour craft, while providing efficient and responsive services to meet the needs of ships calling into Singapore.

6. There are currently about 1600 harbour craft performing a range of marine services within the Port of Singapore, including the delivery of ship supplies and bunker, as well as towage and launch services. The suitability of electrification as a decarbonisation pathway depends on several factors, including the operating profile and energy requirements of the harbour craft.

7. For a start, the EOI will focus on the design and support for transition to electrification of the smaller harbour craft³. These are generally in the range of 20 – 40 tonnes in gross tonnage, have an overall length of 10 – 20 metres, and a combined shaft power ranging from 200 – 400 kW. There are currently about 400 of these harbour craft deployed in the Port of Singapore.

8. Mr Teo Eng Dih, Chief Executive of MPA, said, “The harbour craft sector is an integral part of our port ecosystem. The Expression of Interest is a significant first step to encourage and support early adopters of e-harbour craft. With common referenced designs and the aggregation of demand, we hope to reduce the upfront premiums and operating costs for new harbour craft. This will also support the development of green financing options and enhance the skills of our maritime workforce. We look forward to receiving the proposals and working with like-minded partners to grow the green economy and contribute towards Singapore’s decarbonisation goals”.

9. Interested parties can visit the MPA website <https://go.gov.sg/eoi-e-harbourcraft> for more details and to submit their proposals by 15 September 2023, 2359 hrs (Singapore time).

<End of Release>

² In April 2023, the Coastal Sustainability Alliance, an industry collaborative effort led by Kuok Maritime, announced that green energy solutions firm Ken Energy had signed a letter of intent to purchase the first-generation fully electric supply boats designed and engineered by offshore marine engineering company PAXOCEAN.

³ These smaller harbour craft are used to ferry crew or deliver goods from shore to ship or between larger ships. Some of these small harbour craft include small passenger launches, ferries, patrol boats.

About the Maritime and Port Authority of Singapore (MPA)

MPA was established on 2 February 1996 with the mission to develop Singapore as a premier global hub port and international maritime centre, and to advance and safeguard Singapore's strategic maritime interests. MPA is the driving force behind Singapore's port and maritime development, taking on the roles of port authority, maritime and port regulator and planner, international maritime centre champion, national maritime representative and a champion of digitalisation and decarbonisation efforts at regional and international fora such as at the International Maritime Organization. MPA partners industry, research community and other agencies to enhance safety, security and environmental protection in our waters, facilitate maritime and port operations and growth, expand the cluster of maritime ancillary services, and develops maritime digitalisation and decarbonisation policies and plans, R&D and manpower development. MPA is responsible for the overall development and growth of the maritime domain and Port of Singapore. In 2022, Singapore remained one of the world's busiest transshipment hubs with a container throughput of 37.3 million 20-foot equivalent units (TEUs).

For more information, please visit <https://www.mpa.gov.sg>

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