



Media release

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MPA Collaborates with Bluenergy Solutions to Launch Proof of Value Project for Tidal Energy

The Maritime and Port Authority of Singapore (MPA) is collaborating with Bluenergy Solutions, to launch a Proof of Value (POV) project to harness hydrokinetic energy off the island of Pulau Satumu, Singapore, as an alternative to the transport of diesel to generate power for facilities supporting Raffles Lighthouse (RLH).

2. The POV project is a “Plug and Play” solution where underwater turbines, designed by Bluenergy and A*STAR's Institute of High Performance Computing (IHPC) researchers to optimise the hydrodynamic features of the tidal turbine, will be deployed off Pulau Satumu to convert the kinetic energy of moving water into electrical energy.
3. The POV project is expected to commence in April 2023 and will run for six months. An estimated 2700 kWh of electricity is expected to be generated from four units of turbines used for the POV project during this period. The electricity will be used to power up the non-operational electrical requirements for RLH located at Pulau Satumu, including the RLH living quarters' electrical needs. During the POV project, the RLH navigational lantern will continue to be powered by the existing solar-based energy system.
4. A site assessment was conducted and measures have been taken to ensure the safety in the surrounding area. Sensors will be installed to monitor the movement of marine life around the deployment area. The turbines are designed to spin at relatively low Rotation Per Minute (RPM) and will come to a stop within safety distances to avoid risks of injury to marine mammals.
5. This project will lead to carbon emission savings. MPA will conduct further hydrographic surveys and work with research agencies, to explore the potential of scaling up the use of tidal energy for other waterfront facilities and electric charging locations for vessels in Singapore.

6. MPA is committed to supporting the development of clean and renewable energy sources to reduce the carbon footprint of the maritime sector and looks forward to the success of this POV project.

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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 and national maritime representative. MPA partners with 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 promote maritime digitalisation and decarbonisation, 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 www.mpa.gov.sg

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