Tidal Energy Demonstration in Singapore

MAKO Energy (ME) will be embarking on a tidal energy demonstration project in Singapore using the MAKO.7 tidal turbines, following the signing of a collaboration agreement on 28 November 2018 with the venue host, Sentosa Development Corporation (SDC). Under the agreement, SDC will support ME's project by providing a testbed off the Sentosa Boardwalk to demonstrate the use of existing marine structures, in this case, a concrete pylon, in mounting a turbine that reduces the cost of producing electricity.

Harnessing tidal energy involves the installation of turbines which convert the kinetic energy in flowing water into electricity for local use or for charging batteries. Tidal energy is 100% predictable and is forecast to increase its share of the energy mix, particularly in Southeast Asia.

The benefits of tidal turbines

ME's Singapore-resident chairman Dr Kenneth Burnett said "The MAKO tidal turbine range has been designed for the sort of conditions found at Sentosa island. We expect the Sentosa Tidal Energy Demonstration Site to be a showcase for the benefits of MAKO tidal turbines for Southeast Asia, particularly when coupled with energy storage and other forms of renewables like solar energy."

The MAKO tidal turbine installation will have local content, with the steelwork for the mounting rig to be fabricated locally, and local engineers to work onsite assessment as well as the installation of the turbines.

Chin Sak Hin, Assistant Chief Executive at SDC, said "In line with SDC's firm commitment to environmental sustainability, we are pleased to be a testbed for research institutions and companies looking to trial renewable energy and innovative environmental projects. Being an island with diverse offerings and geographical attributes, Sentosa is a unique location for business trials and we look forward to working with ME as they demonstrate the potential for tides to be a renewable energy source for the region."

ME's parent company CEO, Douglas Hunt, said "We are pleased that the Sentosa site presents us the opportunity to work with leading technology partners [that] include Ocean Works Asia for future deployments at sea, collaborative discussions with Temasek Polytechnic focusing on battery storage and continued collaboration with Dr Srikanth Narasimalu at Energy Research Institute on evaluating turbine performance and environmental impacts. We are also excited to work with Eagle Industry (EKK) on improved sealing technologies and to continue our on-going discussions with ClassNK for future certification for potential customers such as NYK Line to ensure that we meet their needs."