

# Hybrid to make waves

## NEW PILOT VESSEL "FIRST" HYBRID PILOT BOAT.

The ORC 136 HY hybrid pilot boat combines diesel and electric power and will reach up to 15 knots.

Italy-based Transfluid is delivering a plug-in parallel hybrid propulsion system for a new pilot boat being built by British company Goodchild Marine Services Limited.

Ordered by the Port of London Authority (PLA) the boat is expected to be UK's first hybrid pilot boat. The 13.6-metre-long hull is based on the ORC design by French naval architects Pantocarene, with a 'beak' bow giving the vessel a superior all-weather capability.

The ORC 136 HY parallel hybrid pilot boat, will combine both diesel and electric power and has been designed to be completely emission free when operating in electric mode. The vessel is expected to reach up to 15 knots.

### ERRATIC ON DUTY CYCLE

The Transfluid plug-in hybrid system is supplied by Marine and Industrial Transmissions Limited (MIT) – Transfluid's distributor in the UK. E P Barrus is delivering the Yanmar diesel engines and transmission.

Steve Pierce, general manager for Goodchild Marine Service Limited, said: "Passenger boats, such as ferries are low



speed on a pre-determined duty cycle and there are times they can be plugged in and re-charged. Pilot boats, however, can be erratic on duty cycle and speed requirements, so to achieve 15 knots under hybrid power is

a leap and perhaps why no one else, to the best of my knowledge, has gone for it."

He added: "With a light hull shape and minimal drag, our ORC range lends itself towards hybrid power. Coupled with a controlled propulsion power transfer, the system should make a significant impact upon the carbon footprint, adhering to the strategy implemented by the PLA."

The installation of green technology is one of 18 proposals outlined in the PLA's Air Quality Strategy for the Tidal Thames. A first for the UK port sector, the strategy aims to reduce river-based air pollution, whilst also facilitating future growth of waterborne freight and passenger transport. The boat is due for delivery in June 2019.



## Aiming for diesel-free mines

ABB has launched an optimised e-drivetrain platform which, it said, helps manufacturers of heavy duty special and commercial vehicles make a "smooth, fast-track transition" from diesel to zero-emission electric operations. The complete e-drivetrain solution includes the key elements – motor, drive and vehicle control unit – for maximum performance, reliability and energy efficiency.

ABB said it can work alongside vehicle OEMs to design a drive train that suits their specific application needs.

One of the first heavy vehicle customers to adopt ABB's e-drivetrain is Epiroc, a supplier of underground mining and infrastructure equipment. A number of Epiroc's second-generation battery powered vehicles are using an ABB e-drivetrain, including electric motors and, for propulsion and auxiliary applications. Epiroc aims to enable a diesel-free mine with improved air quality and less noise. This electrification will enhance energy efficiency and mine productivity as well as reducing ventilation needs and maintenance costs, said ABB.



An HES880 high power drive.

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