



WE Tech 

Mission

WE Tech develops and delivers integrated innovative hybrid power and energy solutions that enhance efficiency, reduce emissions, and create lifetime support and value for maritime industry.

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ELECTRIFICATION SOLUTIONS

Leading Marine Electrification

ELECTRIFICATION SOLUTIONS

Future-Proof Solutions: Leading Marine Electrification

Built on widely proven technologies, our solutions offer a high Return on Investment through seamless integration across most vessel types and propulsion systems. Whether optimising 2-stroke Main Engine or 4-stroke Main Engine, our solutions maximise fuel efficiency and asset value, ensuring a rapid payback period for shipowners.



Photo source: Stena RoRo

Electric Propulsion

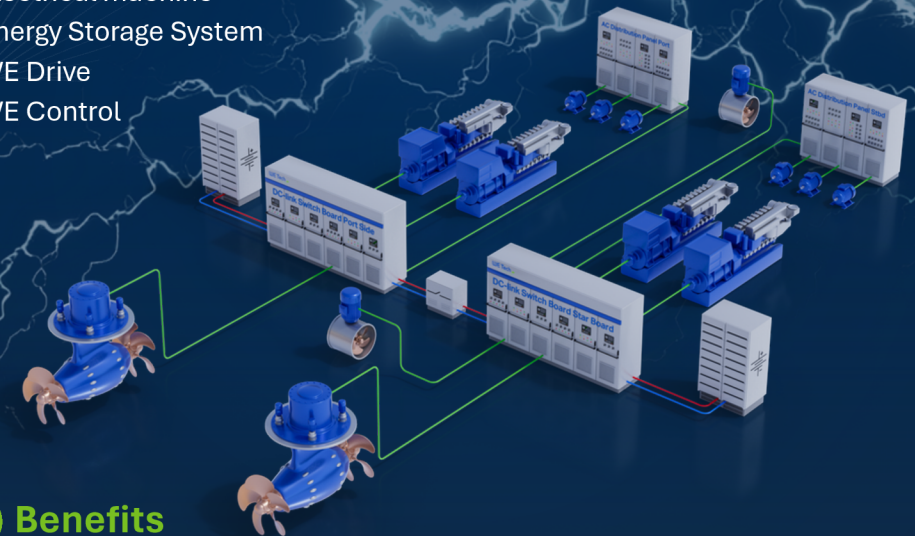
Electric Propulsion systems combine variable speed power generation, energy storage, and advanced electric motor technologies within an integrated onboard power network. By optimising how electrical power is generated and distributed across the vessel, these systems reduce the need for large, heavy electrical equipment. This results in improved space utilisation, lower overall weight, and enhanced operational efficiency.

Technologies Used

- Electrical machine
- Energy Storage System
- WE Drive
- WE Control

Benefits

- Highest energy efficiency via hybridisation → substantial savings and enhanced competitiveness
- Lower weight and less space consumed by the electrical system
- Increased safety and flexibility
- Preventing blackouts or ship wide power failures



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AC Electric Propulsion utilises main generator running on fixed speed with conventional AC power distribution. AC Hybrid Electric Propulsion combining conventional AC power distribution with, for example, fuel cells and energy storage.

Technologies Used

- Permanent Magnet Propulsion Motors
- WE Drive
- AC power distribution
- DC-bus power distribution system
- Energy Storage System
- Variable Speed Auxiliary Generators
- WE Control



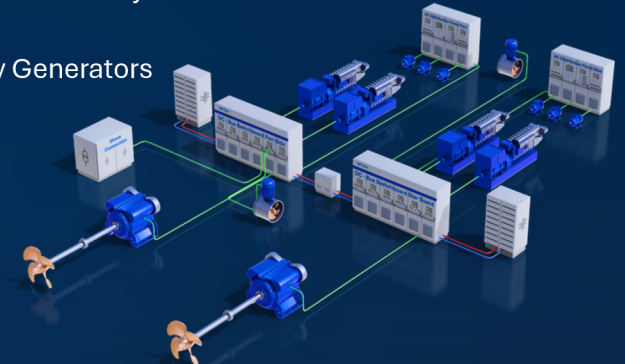
Benefits

- Broader freedom for choosing components compared to a conventional solution
- Wider possibility of hybridisation
- Low THD levels because AFE low harmonic drives are used
- Permanent magnet propulsion motors for highest efficiency and low maintenance
- Reduced weight as no transformer is needed

DC Electric Propulsion utilises main generator running on variable speed with efficient DC power distribution. DC Hybrid Electric Propulsion combining efficient DC power distribution with, for example, fuel cells and energy storage.

Technologies Used

- Permanent Magnet Propulsion Motors
- Ship-wide DC power distribution system
- WE Drive
- Variable Speed Auxiliary Generators
- AC power for hotel load
- Energy Storage System
- Shore Connection
- WE Control



Benefits

- Permanent Magnet Propulsion Motors for highest efficiency
- Generator power is rectified and fed into the DC-bus and thus becomes speed/frequency independent
- Full optimisation of the speed for the internal combustion engine in relation to the propeller speed
- Reduced weight as no transformer is needed and with highest possible energy density with permanent magnet machines
- Low THD levels because AFE low harmonic drives are used

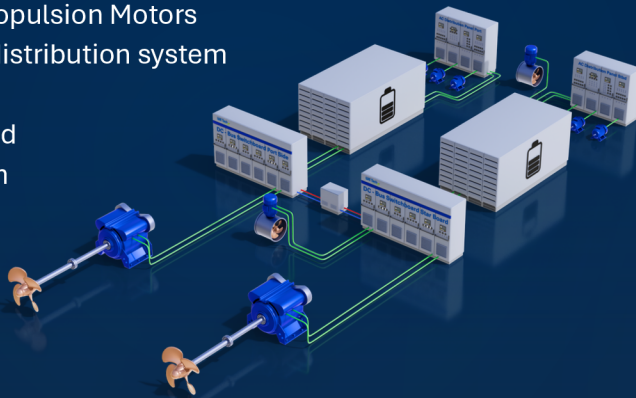
ELECTRIFICATION SOLUTIONS

Full Electric Propulsion

Full electric propulsion and power system delivering zero emissions from source to wake, high efficiency, and quiet operation. Optimised energy storage, advanced power electronics, and intelligent control ensuring reliable performance, reduced operating costs, and compliance with the most demanding environmental requirements.

Technologies Used

- Permanent Magnet Propulsion Motors
- Ship-wide DC power distribution system
- WE Drive
- AC power for hotel load
- Energy Storage System
- WE Control



Benefits

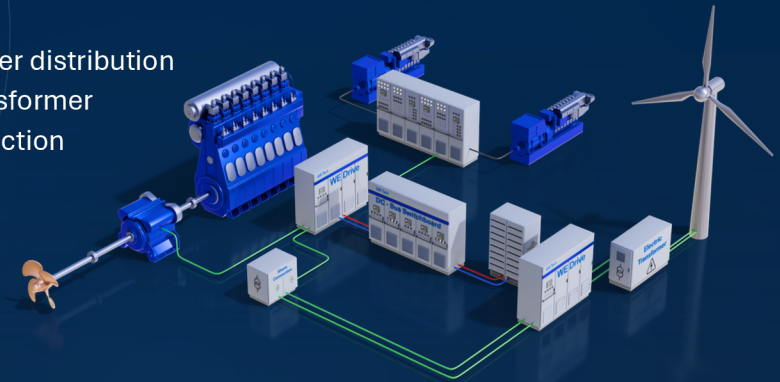
- Zero emissions from source to wake
- High efficiency and quiet operation
- Optimised energy storage
- Advanced power electronics and intelligent control
- Reliable performance and reduced operating costs
- Compliance with the most demanding environmental requirements

Shore Power

Shore power, also known as Onshore Power Supply (OPS), or Alternative Marine Power (AMP), is increasingly standard in newbuilds and a cost-effective retrofit for existing vessels. It enables vessels to reduce fuel consumption, emissions, and noise by connecting to onshore electricity while in port. Instead of running auxiliary engines, ships can use clean shore power to supply onboard loads and charge energy storage systems. WE Tech is actively advancing the development of dedicated Onshore Power Supply (OPS) capabilities to further optimise this transition for our partners.

Technologies Used

- WE Drive
- DC-bus power distribution
- Electric transformer
- Shore connection
- WE Control



Benefits

- Reduced fuel consumption, emissions, and noise by connecting to onshore electricity while in port
- Instead of running auxiliary engines, ships can use clean shore power to supply onboard loads and charge energy storage systems
- Compliance with zero-emission ports