

GE Vernova's Power Conversion business to supply integrated full electric propulsion systems for the Republic of Singapore Navy's Multi-Role Combat Vessel program

- *Contract signed with ST Engineering Marine Limited to supply GE Vernova's Ship's Electric Grid for use on the Republic of Singapore Navy's six new Multi-Role Combat Vessels (MRCVs)*
- *GE Vernova's Ship's Electric Grid manages and distributes electric power throughout the ship and includes its energy-efficient [Integrated Full Electric Propulsion \(IFEP\) system](#)*
- *The MRCVs will be the Republic of Singapore Navy's first IFEP-powered vessels*

United Kingdom: March 18, 2024 - GE Vernova's Power Conversion business has been awarded a contract by Singapore shipbuilder ST Engineering Marine Limited to supply its Ship's Electric Grid with Integrated Full Electric Propulsion (IFEP) equipment for the Republic of Singapore Navy's six-ship Multi-Role Combat Vessel (MRCV) program.

The six MRCVs will be the first IFEP-powered vessels for the Republic of Singapore Navy (RSN) and will replace its fleet of mechanical drive *Victory*-class missile corvettes, which have been in service since 1989. Delivery of the electric propulsion systems for the new ships is planned over the next 10 years.

GE Vernova's Ship's Electric Grid delivers the electrical power required by the ship's propulsion, and energizes its operational and mission systems, such as radar and communications. With the ability to share electric power to any load on the ship's power network, the system is more energy-efficient and cost-effective to operate than a conventional mechanical drive configuration.

GE Vernova's Ship's Electric Grid includes all generators, medium-voltage switchboards, transformers, propulsion variable frequency drives (VFDs), electric propulsion motors, thruster motors, soft starters, a shore power connection, power management system (PMS), and the propulsion control system (PCS).



The modular platform design of the RSN's new MRCVs allows for different naval missions requiring electric power. This includes the ability to host unmanned air and surface vehicles, which will expand the area of each vessel's surveillance capability.

Andy Cooper, General Manager at GE Vernova's Power Conversion UK

business, said: "Power Conversion is pleased to equip the RSN's new MRCVs with electric power. Like so many other navies around the world, the RSN is adopting an electric ship configuration as an enabler for increased levels of power and energy-efficiency. Being equipped with an electric grid allows a ship the ability to share every bit of available power throughout the vessel, strengthening its energy surety and even helping to reduce greenhouse gas emissions".

With deep expertise in marine and naval performance requirements, GE Vernova's Power Conversion UK center of excellence (COE) will be responsible for the design, systems engineering, manufacturing and testing of the equipment. The execution of the project will be supported by the Power Conversion Asia team based in Singapore, who will oversee project engineering, project management, commissioning and sea trials.

GE Vernova's Power Conversion business powers the majority of the UK Royal Navy's large vessel fleet, including Queen Elizabeth Class, Type 45 and Type 26 vessels, as well as many other global naval programs.

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About GE Vernova

GE Vernova is a planned, purpose-built global energy company that includes Power, Wind, and Electrification businesses and is supported by its accelerator businesses of Advanced Research, Consulting Services, and Financial Services. Building on over 130 years of experience tackling the world's challenges, GE Vernova is uniquely positioned to help lead the energy transition by continuing to electrify the world while simultaneously working to decarbonize it. GE Vernova helps customers power economies and deliver electricity that is vital to health, safety, security, and



improved quality of life. GE Vernova is headquartered in Cambridge, Massachusetts, U.S., with more than 80,000 employees across 100+ countries around the world. GE Vernova's **Power Conversion** business provides energy conversion technologies, systems, and services across the power and energy-intensive industries, driving the electric transformation of the world's energy and industrial infrastructure.

GE Vernova's mission is embedded in its name - it retains its legacy, "GE," as an enduring and hard-earned badge of quality and ingenuity. "Ver" / "verde" signal Earth's verdant and lush ecosystems. "Nova," from the Latin "novus," nods to a new, innovative era of lower carbon energy. Supported by the Company Purpose, *The Energy to Change the World*, GE Vernova will help deliver a more affordable, reliable, sustainable, and secure energy future. Learn more: [GE Vernova](#) and [LinkedIn](#).

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