# GE Power Conversion commissions shore power system converters for ships at the Port of Brest

- The Shore Power System can help to reduce ports' carbon and noise emissions, enabling visiting ships to connect to the port's electrical power and turn their engines off in port
- GE's Power Conversion business provides system paralleling capability so that the power supplies can flex for different ships' needs, sharing available power where and when it's needed

At the busy port of Brest in France, the Brest ESID (the Defence Infrastructure Service Establishment) installed a unique Shore Power System equipped with GE Power Conversion's converters. It is now up and running, delivering critical electric power to ships when they are in port. This equipment helps to reduce the port's carbon and noise emissions. Shore power supply tests, conducted in partnership with Cegelec Portes de Bretagne, a company in the VINCI Energies group, have recently been successfully completed as part of the installation and commissioning process, to provide a fully functional shore power supply system.

With its dynamic power management capability, GE Power Conversion's system is particularly adaptive. The conversion systems can be reconfigured automatically according to the needs of different ships berthed in port, without interruption to electrical power supply. For example, if a dock needs to draw more power than its allocated converter's capacity, another converter automatically connects to ensure continuity of service. This feature gives the Shore Power System extraordinary flexibility, protection and safety. The rapid reconfigurability results in very high-power supply availability, making it possible to supply the most demanding systems with electricity.

Some large ships are like floating cities with significant energy needs that are essential to a whole range of facilities, even when they are docked. The quality and stability of the power supply are critical because ports clearly don't want unscheduled downtime for repairs or maintenance when ships are making port

calls.

GE’s solution includes power conversion and control systems, which are key to the user experience. Cegelec Portes de Bretagne ensured the coordination of the electrical installation and supervisory system on the project.

Eric Cotelle, President of GE Energy Power Conversion France, said: "Port power and energy management provide high electrical power availability to the port’s ship customers. The technologies embedded in our converters also help to ensure the high reliability, durability, and long life of the Shore Power System, which is critical for installations that will need to operate for several decades.”

Used for more than 20 years on cruise ships and on port Shore Power Systems, press-pack power electronic technology has proven its reliability. Shore power applications have very specific demands, including the ability to accommodate repeat, frequent cycles of connection and disconnection from shore to ship, so converters—especially semiconductors—must be extremely robust. The GE technology also makes it possible to provide “hot redundancy”, enabling instant correction if an issue is detected, which offers even higher power supply availability.

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**About GE Power Conversion**

GE Power Conversion, an integral part of the GE Vernova portfolio of energy businesses, applies the science and systems of power conversion to help drive the electric transformation of the world’s energy infrastructure. Designing and delivering advanced motor, drive and control technologies that help improve the efficiency and decarbonization of energy-intense processes and systems, helping to accelerate the energy transition across marine, energy and industrial applications. GE Power Conversion is at the heart of electrifying tomorrow's energy. www.gepowerconversion.com

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