

FOR IMMEDIATE RELEASE

Hitachi ABB Power Grids launches first-of-its-kind high-voltage hybrid switchgear for offshore wind

The latest hybrid switchgear will support China's first 66-kilovolt offshore wind farm in reducing carbon emissions

Zurich, 18 December 2020 – Hitachi ABB Power Grids' latest high-voltage hybrid switchgear for offshore wind application is the first-of-its-kind to enable the collection grid between the wind towers to operate at a higher voltage level. Offshore wind turbines typically operate at up to 5-megawatt (MW) generation capacity and 33-kilovolt (kV). However, the growing demand for renewable energy has led to the increase of generation capabilities currently at 14 MW and is expected to reach 20 MW, by 2030. Hitachi ABB Power Grids has introduced a 72.5 kV high-voltage hybrid switchgear, Plug and Switch System (PASS) M00-Wind.

This innovative solution will be installed at China's first 66 kV offshore wind farm, Huadian Yuhuan Phase 1 to optimize the energy landscape in the Yangtze River Delta. Hitachi ABB Power Grids will supply 22 units of PASS M00-Wind to Dongfang Electric Wind Power Co. Ltd., a leading wind turbine manufacturer in China.

China is heading towards an "energy revolution" to embrace cleaner, high-efficiency and digital technologies. The International Energy Agency (IEA) predicts China will account for 40 percent of global renewable capacity by 2024.

Scheduled for completion at the end of 2021, Huadian Yuhuan Phase 1 will supply 770 million kilowatt-hour (kWh) of electricity to power approximately 240,000 households in the Zhejiang province per annum. This decreases the use of fossil fuels by reducing around 584,000 tons of carbon dioxide (CO₂) emissions, equivalent to more than 12,600 passenger vehicles driven for one year.

PASS M00-Wind is a compact hybrid switchgear specifically designed for wind turbine applications. It fits inside the wind turbine and can withstand vibrations and sudden movements in harsh environments to provide maximum safety for wind park operators. The switchgear comes with a digital motor drive and local control cabinet with built-in intelligence for monitoring and diagnostics. The digital protection and control relay provide smooth integration into substation automation systems through IEC 61850 interface. The switchgear offers real-time simulation for proactive management of the life cycle of the asset and remote service intervention.

"Our technology is contributing to the integration of renewable energy and reducing carbon footprint," said Markus Heimbach, Managing Director of the High Voltage Products business in Hitachi ABB Power Grids. "We are committed to the future of sustainable energy and are well-positioned to support the energy transition by enabling a stronger, smarter and greener grid".

Hitachi ABB Power Grids introduced the PASS technology over 20 years ago and continues to drive innovations in this space. The product platform offers voltage ratings from 72.5 to 420 kV with a global installed base of more than 9,000 bays. It is designed to protect electrical networks in various environmental conditions with built-in digital capabilities for monitoring and diagnostics.

About Hitachi ABB Power Grids Ltd.

Hitachi ABB Power Grids is a global technology leader with a combined heritage of almost 250 years, employing around 36,000 people in 90 countries. Headquartered in Switzerland, the business serves utility, industry and infrastructure customers across the value chain, and emerging areas like sustainable mobility, smart cities, energy storage and data centers. With a proven track record, global footprint and unparalleled installed base, Hitachi ABB Power Grids balances social, environmental and economic values. It is committed to powering good for a sustainable energy future, with pioneering and digital technologies, as the partner of choice for enabling a stronger, smarter and greener grid. https://www.hitachiabb-powergrids.com

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