

# News Release

FOR IMMEDIATE RELEASE

## Hitachi Energy's OceaniQ™ innovative solutions help accelerate the development of China's offshore wind power

*Innovative transformers and high-voltage hybrid switchgear solutions support China's newest offshore wind farm, accelerating the transition towards a sustainable energy future*

**Zurich, 12 July 2022** – Hitachi Energy will supply the pioneering WindSTAR™ transformers and high-voltage hybrid switchgear Plug and Switch System (PASS) to China's Tuci offshore wind power project. These solutions will enable the wind farm to operate steadily and reliably at 66-kilovolt (kV) voltage level, thus promoting the efficient utilization of offshore wind power and optimizing the local energy structure.

Developed by China General Nuclear Power Corporation (CGN), the offshore wind power project is located in the sea area off the northeast coast of Xiangshan, Ningbo city in Zhejiang province. Targeting an installed capacity of 280 megawatts (MW), the farm will have 35 wind turbines, each with an 8 MW capacity, and transmit power to shore with a 66 kV submarine cable connected to the onshore booster station which will efficiently integrate renewable energy into the grid and provide green electricity to local households

In recent years, the wind power industry has rapidly developed in China, accounting for 14%<sup>\*1</sup> of the country's total power capacity. As the country continues to leverage its abundant offshore wind resources, wind turbine capacity and the transmission voltage continue to increase, supporting the expansion of offshore wind power and increasing efficiency.

<sup>\*1</sup> Source: What the 2021 China Wind Power Boom Means for the World (<https://energytracker.asia/what-the-2021-china-wind-power-boom-means-for-the-world/>)

To ensure the high capacity and reliability, high-performance 66 kV WindSTAR power transformers and 72.5 kV high-voltage hybrid switchgear PASS M00-Wind will be installed in each turbine, both part of Hitachi Energy's OceaniQ™ portfolio for offshore applications. The solutions will help achieve longer transmission distances, reduce losses, and enable the cost-effective operation of the offshore wind farm.

Both OceaniQ solutions are specially designed to fit inside the narrow space of a wind turbine and address the challenges of the offshore environment. The compact equipment can withstand strong vibrations, sudden movements, corrosion, and salt mists. WindSTAR transformers are eco-efficient and fire safe by using biodegradable ester fluids as an insulation liquid. The hybrid switchgear is the first of its kind to enable the collection grid between the wind towers to operate at 66kV<sup>\*2</sup>, which typically operates at 33kV. PASS M00 Wind can be further integrated with a digital motor drive and local control cabinet with built-in intelligence for monitoring and diagnostics.

<sup>\*2</sup> Hitachi ABB Power Grids launches first-of-its-kind high-voltage hybrid switchgear for offshore wind, December 18, 2020 (<https://www.hitachi.com/New/cnews/month/2020/12/201218.html>)

“As a global technology leader, Hitachi Energy provides a comprehensive portfolio of transformers and high-voltage products to overcome the complexities of the offshore wind power system, help withstand the harsh offshore environment and integrate large-scale renewable energy,” said Jinquan Zhang, Region Head of Greater China, Executive Vice President, Hitachi Energy. “We are pleased to work on this project with customers to deploy advanced solutions at the 66 kV level for the Tuci offshore wind project, jointly accelerating the development of clean energy in China.”

Zhejiang is abundant in offshore wind resources with sound grid conditions to integrate wind power. As a major investment project in the province, the Tuci offshore wind power project is set to be completed and operational by the end of 2022 with an estimated annual power generation of around 840 million kWh, reducing harmful gas and soot emissions by about 570,000 tons<sup>\*3</sup>. Making full use of the province's rich wind resources, this project will help balance the electricity supply and demand, optimize the area's energy mix, and significantly contribute to China's 2060 carbon-neutrality goal.

\*3 Source: Geological Survey of Xiangshan Tuici Offshore Wind Farm Project of CGNPC Completed

([http://www.xiangshan.gov.cn/art/2022/6/20/art\\_1229054127\\_58979446.html](http://www.xiangshan.gov.cn/art/2022/6/20/art_1229054127_58979446.html))

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### **About Hitachi Energy Ltd.**

Hitachi Energy is a global technology leader that is advancing a sustainable energy future for all. We serve customers in the utility, industry and infrastructure sectors with innovative solutions and services across the value chain. Together with customers and partners, we pioneer technologies and enable the digital transformation required to accelerate the energy transition towards a carbon-neutral future. We are advancing the world's energy system to become more sustainable, flexible and secure whilst balancing social, environmental and economic value. Hitachi Energy has a proven track record and unparalleled installed base in more than 140 countries. Headquartered in Switzerland, we employ around 38,000 people in 90 countries and generate business volumes of approximately \$10 billion USD.

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### **About Hitachi, Ltd.**

Hitachi drives Social Innovation Business, creating a sustainable society with data and technology. We will solve customers' and society's challenges with Lumada solutions leveraging IT, OT (Operational Technology) and products, under the business structure of Digital Systems & Services, Green Energy & Mobility, Connective Industries and Automotive Systems. Driven by green, digital, and innovation, we aim for growth through collaboration with our customers. The company's consolidated revenues for fiscal year 2021 (ended March 31, 2022) totaled 10,264.6 billion yen (\$84,136 million USD), with 853 consolidated subsidiaries and approximately 370,000 employees worldwide. For more information on Hitachi, please visit the company's website at <https://www.hitachi.com>.

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.

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