

FOR IMMEDIATE RELEASE

Hitachi ABB Power Grids wins major HVDC order linking Shetland islands to the UK grid

First multi-terminal HVDC interconnection in Europe will boost renewable energy and enhance power security

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Hitachi ABB Power Grids has won a major order from Scottish and Southern Electricity Networks (SSEN) Transmission, part of the UK energy giant SSE plc, to enable Europe's first multi-terminal high-voltage direct-current (HVDC) interconnection. The link, which will connect Shetland to the UK transmission system for the first time, will enhance security of power supply and help transmit wind power generated on the islands, contributing to the UK's decarbonization target of bringing all greenhouse gas emissions to net zero by 2050.

As part of the project, Hitachi ABB Power Grids will deliver and commission an innovative HVDC system, facilitating a multi-terminal link, providing flexibility to transfer power in multiple directions, based on supply and demand, with minimal power losses. This will support power exchange and cost optimization while lowering of carbon footprint.

The HVDC system will convert the harnessed wind power from Alternating Current to Direct Current at an HVDC Converter Station. This power will then be transmitted via underground and subsea cables to an HVDC switching station at Caithness, in the north of Scotland. It will then be transferred via the Caithness Moray HVDC link (previously executed by Hitachi ABB Power Grids), before being converted back to Alternating Current for onward transmission to meet electricity demand in the north of Scotland and beyond, forming a three terminal DC-system.

"This innovative HVDC solution will enable SSEN Transmission to efficiently connect and transport renewable energy and deliver clean power to consumers while enhancing grid reliability." said Niklas Persson, Managing Director of the Grid Integration business at Hitachi ABB Power Grids. "This project is another example of our new business model focused on our core technology, and reinforces our commitment to a sustainable energy future as the partner of choice for enabling a stronger, smarter and greener grid".

The HVDC connection will play a key role in the development of Shetland's renewable energy potential by connecting it to what will be the UK's largest onshore windfarm. Scheduled for completion in 2024, the system is enabled for future connections and integration of more renewables.

"We are delighted to be working again with Hitachi ABB Power Grids for the Shetland HVDC link, building on the experience and strong track record we have established following the construction and operation of the Caithness Moray link," said Sandy Mactaggart, SSEN Transmission's Director of Offshore Delivery. "The HVDC link will deliver substantial socio-economic and environmental benefits to Shetland's, Scotland's and the UK's economy, supporting hundreds of skilled jobs in the process."

Hitachi ABB Power Grids pioneered HVDC technology more than 65 years ago and has delivered more than half of the world's HVDC projects - a recent success being an order to connect the world's largest offshore wind farms in the Dogger Bank region of the North Sea to the UK transmission network. HVDC technology is increasingly being deployed across the world to integrate and transmit large scale renewable energy and has been recognized as a key technology to facilitate a clean energy transition, contributing to the UN Sustainable Development Goal of increasing access to reliable and affordable energy for all, whilst reducing climate impact.

About Hitachi ABB Power Grids Ltd.

Hitachi ABB Power Grids is 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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