

Siemens wins order for first HVDC link between Great Britain and Denmark

- **Viking Link ensures increased security of supply and integration of renewable energy**
- **Siemens to deliver both HVDC converter stations**

Siemens has been awarded a contract to deliver two converter stations for the first high-voltage direct-current (HVDC) link between Great Britain and Denmark. Viking Link will enable the exchange of electricity up to 1,400 megawatts (MW) to provide increased power-supply reliability and security to consumers in both countries. By allowing transmission to flow in both directions, Viking Link will support the integration of renewable energy sources into the power grid. The interconnector is being jointly developed by National Grid Ventures (Great Britain) and Energinet (Denmark) via National Grid Viking Link Ltd. and Energinet Eltransmission A/S. Viking Link is scheduled to begin commercial operation at the end of 2023.

The order comprises a 1,400-MW converter system for DC voltage of ± 525 kilovolts (kV) using HVDC Plus technology. The two converter stations – one in Bicker Fen in Lincolnshire (Great Britain), the other in Revising in southern Jutland (Denmark) – will be linked by a 767-kilometer-long DC power cable passing through the North Sea. Viking Link will be one of the world's longest DC electricity interconnectors. Siemens will be responsible for the overall system design, supply, installation, and commissioning of the converter stations.

“We’re extremely pleased that, with every new interconnection, Siemens is advancing the development of an integrated European energy market. With Viking Link, we’ll be working on another landmark HVDC project that is paving the way to a secure, affordable, and sustainable energy supply,” said Tim Dawidowsky, CEO EPC Projects at Siemens Gas and Power.

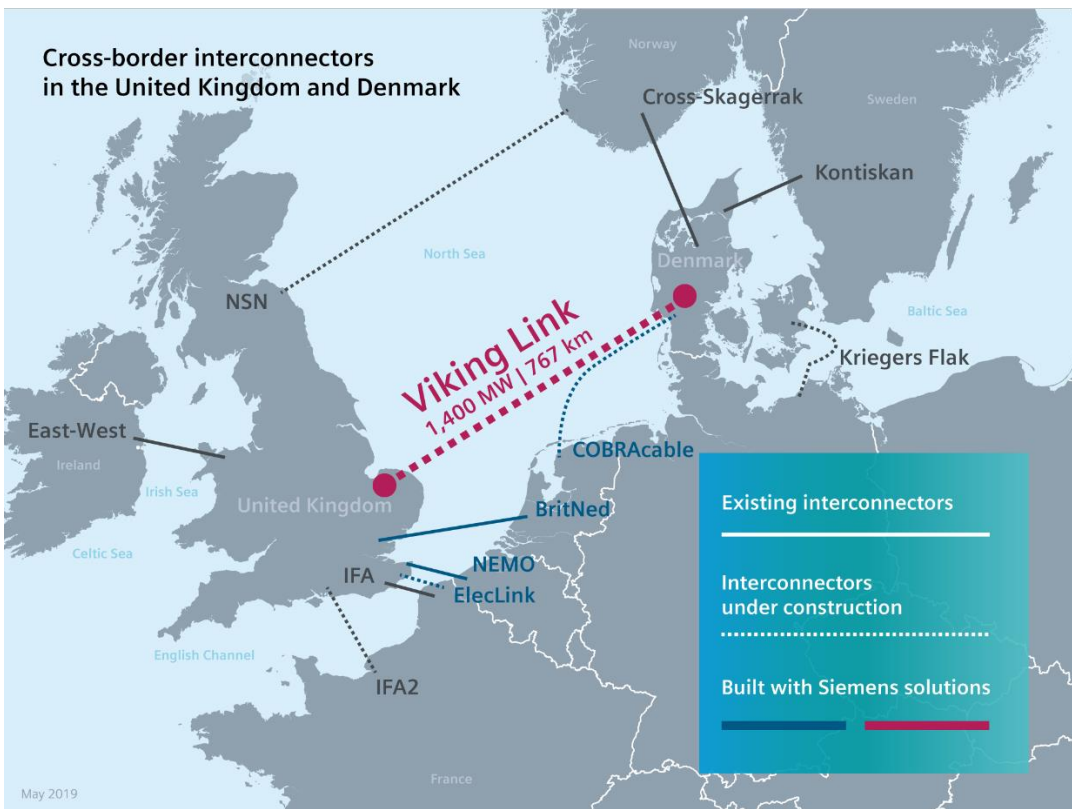
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Both converter stations will use HVDC Plus voltage-sourced converters in a modular multilevel converter arrangement (VSC-MMC) that combine the advantages of HVDC transmission with extra benefits like AC voltage control, black-start capability, and other functions that improve the performance and network stability of both connected AC networks.

Viking Link will transmit surplus energy to wherever the level of demand is higher. Because periods of high wind-energy production and high demand are unlikely to occur simultaneously in both Great Britain and Denmark, the interconnector will result in lower prices in peak consumption periods and enables a more effective use of renewable energy. Viking Link will give consumers in both countries access to a broader energy mix.

A key infrastructure project that will help create an integrated European Union energy market, Viking Link has been designated as one of the European Commission's Projects of Common Interest. These projects are intended to help the EU achieve its energy policy and climate objectives, such as the long-term decarbonization of the economy in accordance with the Paris Agreement.



Cross-border interconnectors in the United Kingdom and Denmark

Viking link will be the first high-voltage direct-current link between Great Britain and Denmark. The interconnector will enable the exchange of electricity up to 1,400 megawatts (MW) to provide increased power-supply reliability and security to consumers in both countries.

This press release and a press picture are available at

www.sie.ag/2GpfOZo

For further information on Siemens Gas and Power, please see

www.siemens.com/energy

For further information on HVDC, please see

www.siemens.com/hvdc

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Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. The company is active around the globe, focusing on the areas of power generation and distribution, intelligent infrastructure for buildings and distributed energy systems, and automation and digitalization in the process and manufacturing industries. Through the separately managed company Siemens Mobility, a leading supplier of smart mobility solutions for rail and road transport, Siemens is shaping the world market for passenger and freight services. Due to its majority stakes in the publicly listed companies Siemens Healthineers AG and Siemens Gamesa Renewable Energy, Siemens is also a world-leading supplier of medical technology and digital healthcare services as well as environmentally friendly solutions for onshore and offshore wind power generation. In fiscal 2018, which ended on September 30, 2018, Siemens generated revenue of €83.0 billion and net income of €6.1 billion. At the end of September 2018, the company had around 379,000 employees worldwide. Further information is available on the Internet at www.siemens.com.