Press release

Manchester, 30 November 2020

Work begins on the converter station for National Grid's Viking Link interconnector

- Converter station will house the technology to enable clean electricity to be transmitted through the 765-kilometre subsea power cable
- 2.4km access road and bridge ready for use by construction traffic
- Once completed, Viking Link will be one of the longest electricity interconnectors in the world

National Grid's Viking Link has started construction on its UK converter station at Bicker Fen in Lincolnshire with Siemens Energy.

Representing a significant step in the UK's journey to net zero, Siemens Energy, lead contractor for the 1400 megawatt interconnector, will supply the technology that will enable the direct sharing of clean electricity between Britain and Denmark for the very first time.

A converter station converts electricity between Alternating Current (AC) and Direct Current (DC). AC is used in each country's transmission system, while DC is used for sending electricity long distances along the subsea cables. An identical converter station will be constructed at the other end of the interconnector, in Denmark.

The converter station will be 300m^2, the equivalent of around 12 football pitches. It will house state-of-the-art High Voltage Direct Current (HVDC) PLUS technology, which enables the export and import of energy through the 765-kilometer subsea and underground cable to and from Denmark.

In July, UK work started to build a new access road and a bridge over the Hammond Beck waterway. This new permanent infrastructure will enable

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access for the major construction equipment to the converter station and for operational vehicles to access the site once the converter station is completed in 2023, reducing traffic through Bicker Village.

In total around 60 people are working on the site following Government and industry guidelines for Covid-19 management. Measures introduced include, temperature checks, enhanced PPE (personal protective equipment), hand sanitiser stations across the site, regular cleaning as well as strict social distancing.

“Viking Link will play a vital role in the UK’s future energy system allowing the transmission of power with Denmark. This will enable further decarbonisation of the UK’s electricity supplies and help reach net zero, said Mark Pilling, Head of Transmission Solutions, Siemens Energy UK&I. “This next stage of construction will see the heart of the project begin to take shape, with the converter station housing the equipment needed to transmit this power safely and efficiently.”

Mike Elmer, Viking Link Project Director for National Grid Ventures said, “The start of construction of the converter station in Lincolnshire is a major milestone for the project as it will play an integral role in connecting the British and Danish electricity systems.

By connecting the two countries’ grids for the first time, Viking Link will ensure a secure, sustainable and affordable supply of electricity to both British and Danish consumers.

“As part of a network of subsea, clean energy super-highways connecting the UK with its neighbours, Viking Link will help to reduce Britain’s carbon emissions from the power sector. By 2030, 90% of electricity imported via National Grid’s interconnectors will be from zero carbon sources.”

Viking Link project is a joint venture between National Grid Ventures, part of National Grid, and the Danish electricity system owner and operator, Energinet. The 1.4 GW high voltage electricity interconnector will be the longest in the

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world when completed, stretching 765km subsea and onshore connecting from Bicker Fen in Lincolnshire, UK and Revsing in South Jutland, Denmark to enable clean energy to be shared.

Both converter stations will use HVDC PLUS voltage-sourced converters in a modular multilevel converter arrangement (VSC-MMC) which combines 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.

For further information on Siemens Energy Transmission solutions:
https://www.siemens-energy.com/global/en/offerings/power-transmission/high-voltage-direct-current-transmission-solutions.html
Follow us on Twitter at: www.twitter.com/siemens_energy

For further information on National Grid's Viking Link project:
http://viking-link.com/
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Siemens Energy is one of the world's leading energy technology companies. The company works with its customers and partners on energy systems for the future, thus supporting the transition to a more sustainable world. With its portfolio of products, solutions and services, Siemens Energy covers almost the entire energy value chain – from power generation and transmission to storage. The portfolio includes conventional and renewable energy technology, such as gas and steam turbines, hybrid power plants operated with hydrogen, and power generators and transformers. More than 50 percent of the portfolio has already been decarbonized. A majority stake in the listed company Siemens Gamesa Renewable Energy (SGRE) makes Siemens Energy a global market leader for renewable energies. An estimated one-sixth of the electricity generated worldwide is based on technologies from Siemens Energy. Siemens Energy employs more than 90,000 people worldwide in more than 90 countries and generated revenue of around €27.5 billion in fiscal year 2020. www.siemens-energy.com.

About National Grid Ventures:
National Grid Ventures (NGV) is the competitive, non-regulated division of National Grid plc, one of the largest investor-owned energy companies in the world. NGV operates outside of National Grid's core regulated businesses in the US and UK where it develops, operates and invests in energy projects, technologies and partnerships to accelerate the development of a clean energy future. NGV's diverse portfolio of low carbon and renewable energy businesses across the UK, Europe and US includes sub-sea interconnectors, liquefied natural gas, battery storage, wind and solar power. For more information, visit www.nationalgrid.com/ventures.

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National Grid in the UK:

- We own and operate the electricity transmission network in England and Wales, with day-to-day responsibility for balancing supply and demand. We also operate, but do not own, the Scottish networks. Our networks comprise approximately 7,200 kilometres (4,474 miles) of overhead line, 1,500 kilometres (932 miles) of underground cable and 342 substations.
- We own and operate the gas National Transmission System in Great Britain, with day-to-day responsibility for balancing supply and demand. Our network comprises approximately 7,660 kilometres (4,760 miles) of high-pressure pipe and 618 above-ground installations.
- As Great Britain's System Operator (SO) we make sure gas and electricity is transported safely and efficiently from where it is produced to where it is consumed. *From April 2019, Electricity System Operator (ESO) became a new standalone business within National Grid, legally separate from all other parts of the National Grid Group. This provides the right environment to deliver a balanced and impartial ESO that can realise real benefits for consumers as we transition to a more decentralised, decarbonised electricity system.
- Other UK activities mainly relate to businesses operating in competitive markets outside of our core regulated businesses; including interconnectors, gas metering activities and a liquefied natural gas (LNG) importation terminal – all of which are now part of National Grid Ventures. National Grid Property is responsible for the management, clean-up and disposal of surplus sites in the UK. Most of these are former gas works.

Find out more about the energy challenge and how National Grid is helping find solutions to some of the challenges we face at https://www.nationalgrid.com/group/news.

National Grid undertakes no obligation to update any of the information contained in this release, which speaks only as at the date of this release, unless required by law or regulation

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