

An aerial night photograph of the North Atlantic Ocean. The continents of North America and Europe are visible, with their cities and towns glowing with warm yellow and orange lights. The ocean is a deep, dark blue. A thin red horizontal line is visible near the top of the image, just above the text.

Proposals for the NeuConnect Interconnector

Public Information Leaflet

Introduction

Project Overview

The NeuConnect Interconnector will create the first direct power link between Germany and Great Britain, connecting two of Europe's largest energy markets for the first time

A pair of subsea cables will form an 'invisible highway' of around 720km allowing up to 1.4GW of electricity to move in either direction, enough to power tens of millions of homes over the life of the project.

The main elements included are:

- Subsea and underground cables
- A landfall location in both Great Britain and Germany
- A new converter station in both Great Britain and Germany
- A new substation will be built in Great Britain to enable NeuConnect to link with the existing national grid

All of the GB land-based elements will be located on the Isle of Grain in Medway, Kent.



Who is developing the NeuConnect Interconnector?

NeuConnect is a fully privately funded £1.4bn project. It is being developed by an international, experienced consortium that includes Meridiam, Allianz Capital Partners on behalf of Allianz Group and Kansai Electric Power, with the project also supported by Greenage Power and Frontier Power as developers.

Lead-investor Meridiam bring a long-term commitment to invest in, develop and manage the asset over 25 years and beyond.



About interconnectors

Key Elements

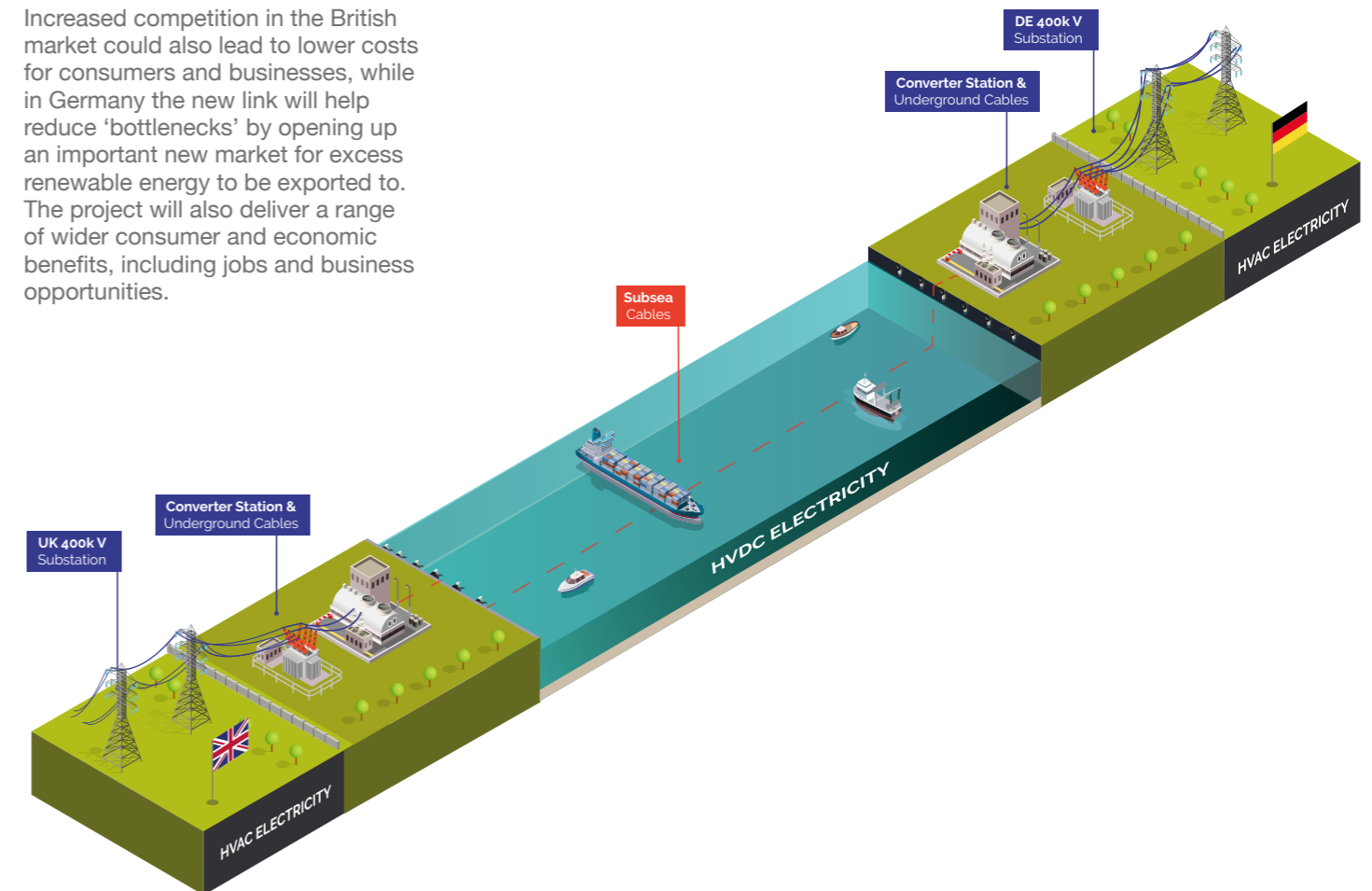
Interconnectors create important new links between the energy networks of different countries, allowing a safe, secure and affordable energy supply to cross geographical boundaries.

Many countries, including GB and Germany, have identified a long-term need for interconnectors as they help to integrate energy markets, increase competition and security of supply, and deliver value for money for consumers.

Why are interconnectors needed?

By connecting two of Europe's largest energy markets for the first time, the project will offer a more diverse and sustainable supply, offering much needed resilience, security and flexibility in GB and Germany.

Increased competition in the British market could also lead to lower costs for consumers and businesses, while in Germany the new link will help reduce 'bottlenecks' by opening up an important new market for excess renewable energy to be exported to. The project will also deliver a range of wider consumer and economic benefits, including jobs and business opportunities.



Benefits



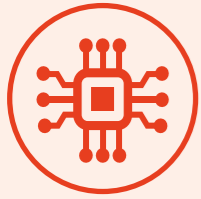
RESILIENT - dependable, safe and more secure

The fully financed £1.4bn / €1.6bn interconnector scheme will create the first direct link between Great Britain and Germany's electricity networks. Connecting two of Europe's largest energy markets for the first time will offer a more diverse and sustainable supply, offering much needed resilience, security and flexibility in each market.



ECONOMIC - more competition means lower prices

By allowing up to 1.4GW of electricity to flow in either direction between Germany and Great Britain, the new link will significantly increase choice and competition in each market. This could lead to millions of consumers and businesses benefitting from reduced electricity prices.



EFFICIENT - investing in reliable technology

The investment in proven, reliable high-voltage direct current (HVDC) technology offers British and German networks greater efficiency and flexibility to deal with the changing demands of industry, businesses and consumers.



TRANSFORMATIVE - £3bn in benefits, a significant economic boost

The vital new link will create an 'invisible highway' to carry 1.4GW of electricity, enough to power tens of millions of homes over the life of the project and offering net consumer benefits of over £3bn / €3.4bn.



SUSTAINABLE - low-impact, low-carbon

720km of cables will connect substations in Germany and on the Isle of Grain in Kent. The integration of renewable energy sources will see a reduction of up to 34 million metric tonnes of CO2 over the life of the project.

The new connection will allow Britain to tap into the vast energy infrastructure in Germany, including its significant renewable energy sources as the world's third largest producer of wind power.



DELIVERABLE - meeting future energy needs

NeuConnect received Interim Project Approval from Ofgem in January 2018. Final approval for the scheme is expected in 2020, allowing construction to start shortly afterwards. NeuConnect is targeting 2023 for project completion, helping meet Britain and Germany's future energy needs and delivering significant benefits for consumers, businesses and industry in less than four years.

Onshore elements in GB

The onshore cable will run from the landfall location to the new substation and converter station located around 2km inland.

The onshore cable route will be installed from the proposed converter station east towards the B2001/ Grain Road. It will then extend north along the eastern boundary of the field to the west of the B2001/ Grain to West Lane. At West Lane the cable route passes under West Lane in an existing culvert. North of West Lane the cable route will largely follow the existing track to the point of landfall to join with the subsea cable.

This cable route has been selected as it follows areas of existing hardstanding and therefore limits the environmental disturbance of the installation process. Other constraints have also been taken in to consideration, such as the area of landfill to the northeast of the converter station site, which has been avoided to prevent the risk of disturbance of the landfill material and the potential impacts to the environment and construction staff.

National Grid overhead line

In addition to the underground cable route, some changes will need to be made to the existing pylons close to the converter station site. This may include an additional pylon close to the proposed new substation, or the relocation of the exiting pylon currently located to the west of the proposed substation and converter station.

Should this be necessary, the new pylon or the relocation of existing pylon may be relocated to within the area of works – the approximate location is designated by the orange shaded box in the diagram on the next board. In addition, NeuConnect will be making land available for a new National Grid substation.



Offshore elements

The offshore cable route will run from the Isle of Grain, through British, Dutch and German waters, to the German landfall location at Fedderwarden, near Wilhelmshaven.

The offshore cable will comprise two high-voltage DC subsea cables, together with a fibre-optic cable of a much smaller diameter for operational control and communication purposes

The two DC cables will be installed together as a pair of cables. The cables will typically have a copper core with various layers providing insulation and protection to the cable. Each DC cable will be approximately 150mm in diameter



Landfall Location

A landfall location is required to bring the high voltage subsea cables ashore. It is proposed that the GB landfall will be located on the north coastline of the Isle of Grain.

An underground Transition Joint Chamber (TJC) will be constructed at the landfall location to bring the offshore HVDC cables ashore and connect them to onshore HVDC cables that will run underground from the landfall to the converter station.

Why was the Isle of Grain selected?

To identify the connection point for NeuConnect, National Grid undertook an Ofgem approved assessment of a number of connection points on the electricity transmission network.

This assessment process evaluates the respective transmission options required which leads to the identification and development of the overall efficient, coordinated and economical connection point, onshore connection design and where applicable, offshore transmission system/interconnector design in line with National Grid's obligation to develop and maintain an efficient, coordinated and economical system of the electricity transmission network.

The assessment process uses National Grid's knowledge of the network (including agreed future connections), agreed cost information and data supplied by NeuConnect to make the assessment. The process for selecting the most appropriate connection location is undertaken by National Grid, based on their technical knowledge of the network, studies, and other considerations associated with the project, and input from the developer on the details of the assets to be connected.

Next steps



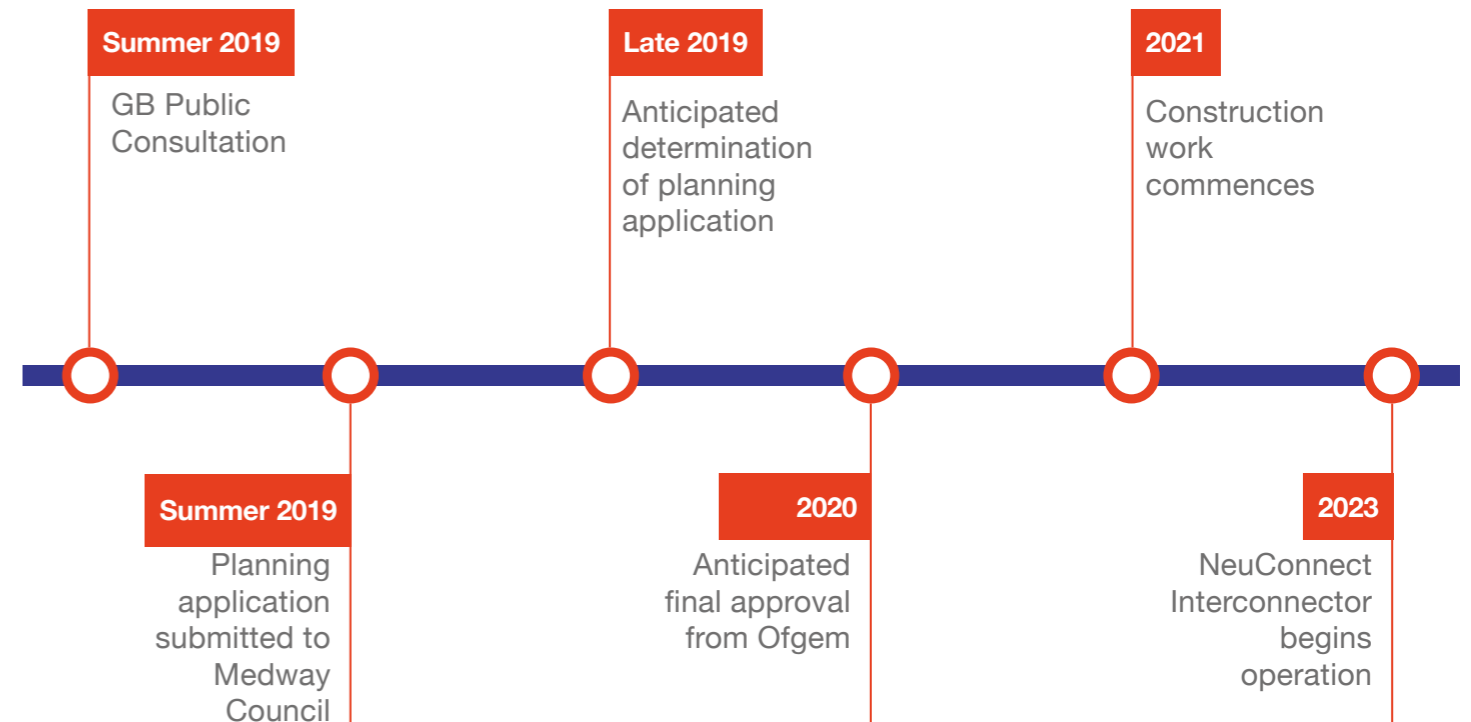
Thank you for taking the time to attend our public consultation.

We would greatly appreciate it if you would take a few minutes of your time to fill out a feedback form and post it in the ballot box provided. Alternatively, you can post it back to us using our freepost address: **'Freepost NeuConnect Consultation'**.

The deadline for submitting feedback is Monday 8th July 2019.

Following this consultation, NeuConnect will consider all feedback submitted and will, where possible, make alterations to the proposals based upon the comments received, before submitting a planning application to Medway Council.

Timeline





Contact us

If you have any questions, please contact us via:

 neuconnect@communityfeedback.co.uk

 0800 298 7040

 NEUCONNECT CONSULTATION

 www.neuconnect.eu