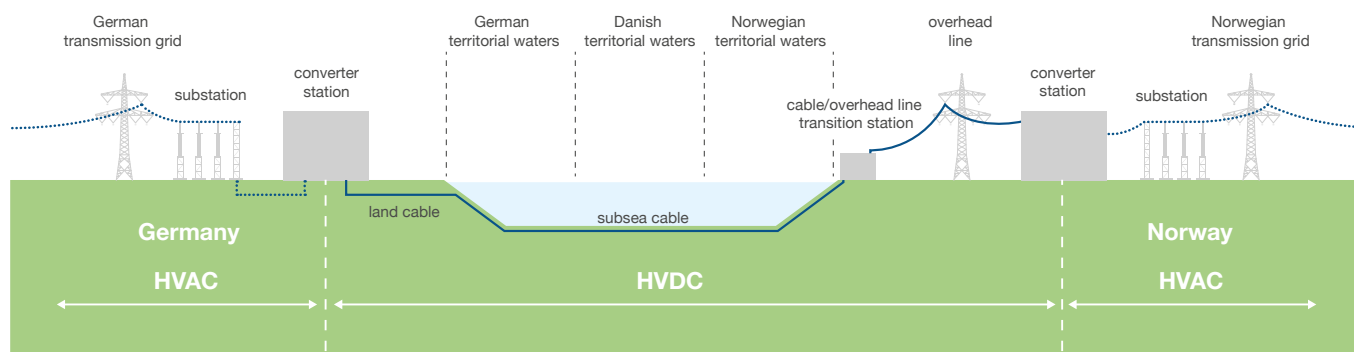




# NordLink

## Technical design of the first HVDC link between Germany and Norway

A high voltage direct current (HVDC) link, consisting of a cable of 623 km in length and one converter station at each end, will be installed by partners TenneT, Statnett and KfW. The “green cable”, of which 516 km is subsea cable, will contribute to a more efficient and climate friendly energy system, will allow exchange of renewable energy in Germany and Norway and increase security of supply. The HVDC link will have a capacity of 1.400 megawatts (MW) and will run between Wilster in Schleswig-Holstein/Germany and Tonstad in Norway.



### NordLink - the “green cable”

NordLink will be a bi-pole, high voltage, direct current (HVDC) interconnector comprising a pair of high voltage electricity cables. Due to the distance involved (623 km), direct current (DC) electricity is used to transmit power through the cables which connect the converter stations at each end. Direct current (DC) is particularly favourable when transferring high energy via long distances to minimise transmission loss. At the converter stations, which are to be built at Wilster in the German state of Schleswig-Holstein and at Tonstad in Norway, the electricity will be

converted back into alternating current (AC) and connected to the respective German or Norwegian transmission grids in order to supply electricity to homes and businesses.

### German-Norwegian co-operation

The NordLink project will be realised by the Norwegian TSO Statnett and DC Nordseekabel GmbH & Co. KG, each with 50% ownership. TenneT TSO, and German promotional bank KfW both have shares of 50% in DC Nordseekabel. DC Nordseekabel is responsible for the construction of the German part of the project, including permits.

### Facts and figures

- **Connection**  
623 km grid connection DC (HVDC)  
Capacity: 1.400 MW at  $\pm 500$  kV DC  
Onshore: 53 km overhead line (Vollesfjord to Tonstad/NO)  
Offshore: 516 km subsea cable  
Onshore: 54 km land cable (Büsum to Wilster/DE)
- **Grid connection points**  
Substations Wilster (DE) and Tonstad (NO)
- **Project status**  
Commissioning and trial operation in Q4/2019, commercial operations in 2020

TenneT is a leading European electricity transmission system operator (TSO) with its main activities in the Netherlands and Germany. With approximately 22,000 kilometres of high-voltage connections we ensure a secure supply of electricity to 41 million end-users. We employ approximately 3,000 people, have a turnover of EUR 3.3 billion and an asset value totalling EUR 15.4 billion. TenneT is one of Europe’s major investors in national and cross-border grid connections on land and at sea, bringing together the Northwest European energy markets and enabling the energy transition. We take every effort to meet the needs of society by being responsible, engaged and connected.

#### Taking power further

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