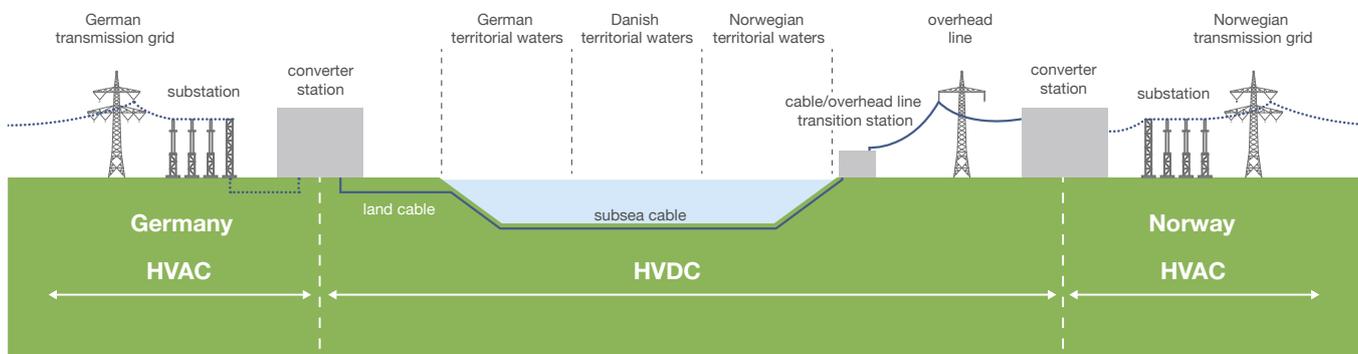


# NordLink

## 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, was installed by partners TenneT, Statnett and KfW. The “green link”, of which 516 km is subsea cable, contributes to a more efficient and climate friendly energy system, allows the exchange of renewable energy in Germany and Norway and increases security of supply. The HVDC link has a capacity of 1.400 megawatts (MW) and runs between Wilster in Schleswig-Holstein/Germany and Tonstad in Norway.



### NordLink - the “green link”

NordLink is implemented as a high voltage direct current (HVDC) transmission between Germany and Norway with a route length of 623 km, whereof 516 km are realized as submarine cable. Due to its length, direct current is used to transmit the electricity through both cables (positive and negative poles), which are connected to converter stations at each end. Direct current is especially advisable over long distances and for large-scale transmissions of power. The converter stations are built in Wilster, Schleswig-Holstein/Germany, and Tonstad in Norway. At these sites, the electricity is converted from direct (DC) to alternating current

(AC) – or vice versa, depending on the direction of transmission – and fed into the German or Norwegian transmission grid in order to supply households and companies with electricity. In absolute terms, NordLink can supply around 3.6 million German households.

### German-Norwegian co-operation

The NordLink project was implemented by the Norwegian TSO Statnett and DC Nordseekabel GmbH & Co. KG, each with 50% ownership. TenneT and KfW each have a 50% share in DC Nordseekabel. DC Nordseekabel was responsible for the construction and approvals on the German part of the project.

### Facts and figures

- **Connection**
  - 623 km grid connection
  - DC (HVDC)
  - Capacity: 1.400 MW
  - at ± 525 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**
  - In operation

TenneT is a leading European grid operator. We are committed to providing a secure and reliable supply of electricity 24 hours a day, 365 days a year, while helping to drive the energy transition in our pursuit of a brighter energy future – more sustainable, reliable and affordable than ever before. In our role as the first cross-border Transmission System Operator (TSO) we design, build, maintain and operate 23,900 km of high-voltage electricity grid in the Netherlands and large parts of Germany, and facilitate the European energy market through our 16 interconnectors to neighbouring countries. We are one of the largest investors in national and international onshore and offshore electricity grids, with a turnover of EUR 4.5 billion and a total asset value of EUR 27 billion. Every day our 5,700 employees take ownership, show courage and make and maintain connections to ensure that the supply and demand of electricity is balanced for over 42 million people.

#### Lighting the way ahead together.

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