

YOUR CONTACT Cornelia Junge
TELEPHON +49 5132.89-2357
E-MAIL presse@tennet.eu

DATE 11.08.2020
PAGE 1 von 3

Offshore grid connection BorWin5: TenneT awards contracts for converter stations and cables

- **The consortium of Siemens AG and Dragados Offshore S.A. has been awarded the contract for the construction of converter stations on land and at sea, while NKT HV Cables AB has been awarded the contract for the production and installation of the DC underground and submarine cables.**
- **With 230 kilometres the longest offshore direct current connection to date**
- **Commissioning of the 900 megawatt connection is scheduled for 2025**

In the tendering procedure for the contract to build the longest offshore grid connection system, BorWin5, with 230 kilometres, TenneT has awarded the contracts for the converter stations on land and at sea to the consortium Siemens AG / Dragados Offshore S.A. The contracts for the DC underground and submarine cables have been awarded to NKT HV Cables AB.

"With regard to our latest offshore project, we are delighted to not only award the contract to Siemens and Dragados, two companies that are both proven and innovative in the construction of converters but also to NKT, another powerful supplier in the market for plastic-insulated direct current cables ", said Tim Meyerjürgens, COO of TenneT.

BorWin5 is the 15th offshore grid connection system to be realised by TenneT in the German North Sea and also the twelfth direct current connection.

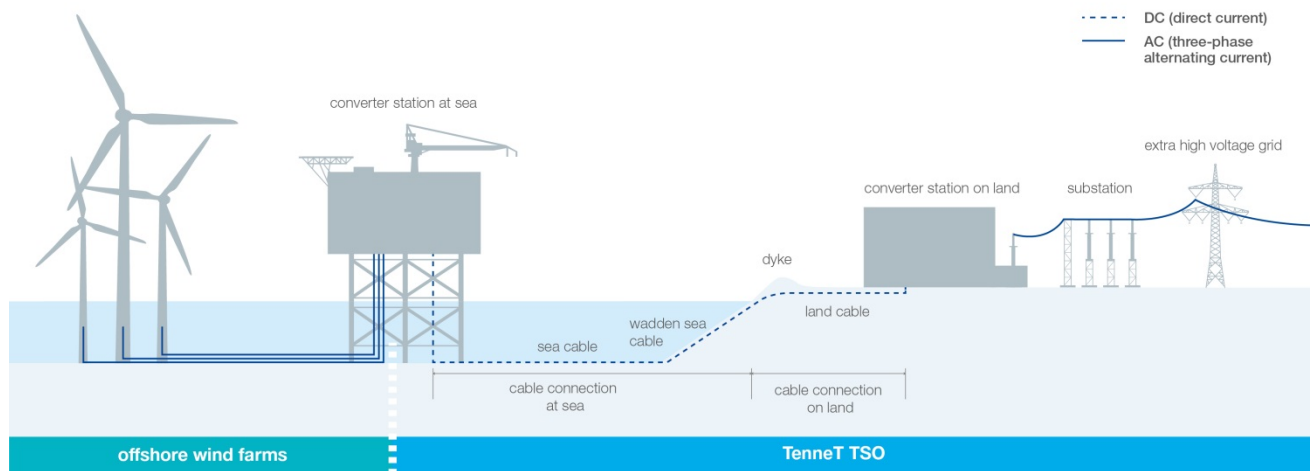
Tim Meyerjürgens: "With the award of BorWin5, we are proceeding with the continuous cost reduction in the construction of offshore grid connection systems. Compared to the predecessor project DoWin5, we were again able to achieve a significant cost reduction for the converter stations. One reason is that for BorWin5 the smart platform concept is being used for the first time. This not only keeps the costs for the platform construction manageable, but also allows us to extend the intervals for maintenance and servicing to once a year". With the smart platform concept, TenneT is continuing to drive forward standardisation. In accordance with the principle 'as little as possible, as much as necessary', we only install the technology on the offshore platforms that has to be available offshore. In doing so, we make use of the extensive experience gained from the grid connection systems already in operation.

In addition, BorWin5 is the second project after DoWin5, in which the wind turbines are directly connected to the offshore platform BorWin epsilon via 66-kilovolt three-phase power cables. This eliminates the transformer stations that were previously required in every wind farm. In addition, 155-kV three-phase current cables are no longer required to connect the TenneT offshore platform with the wind farm. By means of a 230-kilometre-long extra-high-voltage

direct current cable, TenneT transmits the electricity to the Garrel/East converter station on land after conversion using low-loss direct current technology. Here, the direct current is converted back into three-phase alternating current and fed into the extra-high voltage grid. With the 66 kV direct connection, BorWin5 belongs to the new generation of cost-efficient offshore grid connections, which make an important contribution to the energy transition.

About BorWin5

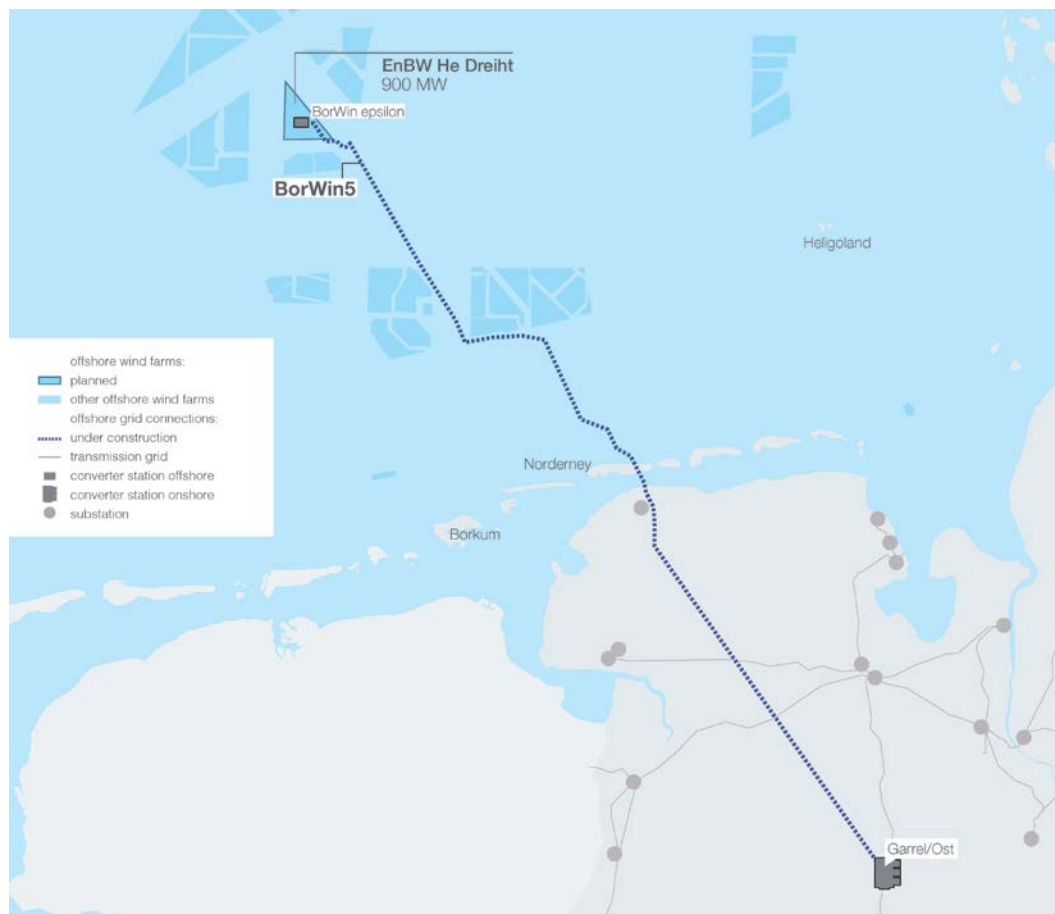
BorWin5 is the fourth offshore grid connection – in addition to the projects BorWin1, 2 and 3 – TenneT is implementing off the coast of Borkum using high-voltage direct current transmission technology. BorWin5 has a transmission capacity of 900 megawatts and will connect the wind farm EnBW He Dreiht with the transmission grid. The commissioning of BorWin5 is planned for 2025.



With the innovative 66-kV connection, the wind farms will be directly connected to the TenneT offshore platform. This means that transformer stations in the offshore wind farms are no longer necessary.

BorWin5: facts and figures

- 230-kilometre-long connection using high-voltage direct current (HVDC) transmission technology with a maximum transmission capacity of 900 megawatts
- 110 kilometres of land cable, 120 kilometres of submarine cable
- Grid connection point: Garrel/East (near Cloppenburg)
- Planned commissioning in 2025



TenneT

TenneT is a leading European grid operator (Transmission System Operator (TSO)). We design, build, maintain and operate the high-voltage electricity grid in the Netherlands and large parts of Germany and facilitate the European energy market. We are committed to providing a secure and reliable supply of electricity, today and in the future, 24 hours a day, 365 days a year and to playing our role in driving the energy transition. We transport electricity over a network of approximately 23,500 kilometres of high-voltage connections, from wherever and however it's generated, to over 42 million end-users while keeping electricity supply and demand balanced at all times. With close to 5,000 employees, we achieve a turnover of 4.1 billion euros and a total asset value of EUR 23 billion. TenneT is one of the largest investors in national and international onshore and offshore electricity grids. TenneT makes every effort to meet the needs of society. This will require us all to take ownership, show courage and connect with each other.