

Press release

## **SuedOstLink: First award of contract for plastic-insulated underground cable for 525 kilovolts**

- **50Hertz and TenneT project reaches important milestone**
- **NKT and Prysmian receive major order for around 1,000 kilometres of underground cables**

**Bayreuth/Berlin, 5 May 2020** – One of the energy transition's major grid expansion projects is taking another important step forward. The underground cable suppliers for the SuedOstLink direct current connection, which is around 500 kilometres long and will be between Wolmirstedt near Magdeburg in Saxony-Anhalt and Isar near Landshut in Bavaria, have been confirmed. The transmission system operators TenneT and 50Hertz, who are jointly implementing the direct current connection, have now awarded the contract to two cable manufacturers.

The contract went to NKT GmbH & Co. KG and Prysmian PowerLink S.r.l. In addition to manufacturing, it also includes laying the underground cables. SuedOstLink requires around 1,000 kilometres of the plastic-insulated underground cable for a voltage of 525 kilovolts (kV). The connection will have a transmission capacity of two gigawatts.

"The underground cables are the heart of SuedOstLink. By placing the order for the underground direct current cables, we have made good progress in implementing this important connection for the energy transition", emphasized Tim Meyerjürgens, Managing Director of TenneT. "We will use the innovative, plastic-insulated 525 kV underground cables for the first time worldwide and will thus set new standards in technology and the reduction of environmental impact."

With the higher voltage level, the cables can transmit more power than the conventional 320 kV cable systems. This requires fewer cables to transmit the same power; the route can be narrower and the necessary civil engineering work during the construction phase will decrease. This significantly reduces the impact on the environment.

"The extensive tendering process that started in 2018 ends with the award of the contract; the two successful companies can now go into production and plan the cable laying beginning in 2022. This is a good signal for the SuedOstLink joint venture project as well as for the energy transition across Germany and Europe", said Dr. Frank Golletz, Technical Director at the transmission system operator 50Hertz.

### **Orders involve extensive work**

The companies commissioned are represented in numerous international projects. In Germany, their extra-high voltage cables connect a number of wind farms in the North and Baltic Seas to the German onshore transmission system grid. NKT is supplying the underground cables for the northern part of the SuedOstLink project through Saxony-Anhalt, Thuringia and Saxony. Prysmian PowerLink produces the underground cables for the Bavarian SuedOstLink section. The orders placed include the design, manufacture, delivery and laying of the underground ca-

bles, as well as the installation of the connecting sleeves and terminations and the final high voltage test of the cable system. In addition, the suppliers provide support in the detailed routing, specifically in determining the individual cable lengths and the locations of the connecting sleeves.

All bidders had to demonstrate the quality of their cables in an extensive prequalification test. The test simulated the operational load for the planned total operating time of around 40 years within a twelve month period. On the basis of the positive test results, the transmission system operators decided on the system voltage of 525 kV last year. Until then, a voltage of 320 kV was included in the planning as an alternative option.

### **Important connection for the energy transition**

SuedOstLink is currently undergoing the planning approval procedure. At the end of this procedure, the approval authority - the Bundesnetzagentur (Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway) - determines the exact course of the underground cable route. SuedOstLink should be completed by the end of 2025.

TenneT and 50Hertz are investing around five billion euros in the SuedOstLink project. The investments are amortised over 40 years. At the same time, SuedOstLink will help to reduce the costs of grid stabilisation measures, which are borne in full by electricity consumers. These costs are around 1.3 billion euros annually nationally. Grid stabilisation measures are necessary because the existing power grid is not designed for the growing share of renewable energy resources in power generation. With connections such as SuedOstLink, these costs are reduced because they will transport decentrally generated wind and solar power flexibly and safely to the customers.

SuedOstLink is a European Union "project of common interest" (PCI) and is funded within the "Connecting Europe" framework. Since 2012, its needs have been repeatedly confirmed in grid development plans and the Federal Requirements Plan Act. SuedOstLink will connect the north-eastern German states, with their high wind and solar power generation levels, to important industrial regions and consumption centres in Bavaria, and is crucial to further improve supply security, expand renewable energy sources and to achieve the 2030 and 2050 climate protection goals.

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#### **About TenneT:**

TenneT is a leading European transmission system operator. We plan, build, service and operate the high and extra-high voltage grid in the Netherlands and large parts of Germany and enable the European energy market. We are committed to ensuring a safe and reliable power supply 24 hours a day and 365 days a year, today and in the future, and to driving the energy transition forwards. With around 23,500 kilometres of high and extra-high voltage lines in the Netherlands and Germany, we offer a reliable and secure power supply for 42 million end users, always maintaining a balance between the supply and demand for electricity. With almost 5,000 employees, we generate sales of 4.1 billion euros and have fixed assets of around 23 billion euros. TenneT is one of the largest investors in national and international power grids, both onshore and offshore. As a responsible, committed and networked company, we always act with the needs of society in mind. Taking power further

#### **About 50Hertz:**

50Hertz operates the electricity transmission system in the north and east of Germany, which it expands as needed for the energy transition. Our extra high voltage grid has an electrical circuit length of about 10,490 kilometres, or the distance between Berlin and Rio de Janeiro. The 50Hertz control area covers the Lander of Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt and Thuringia, as well as the city states of Berlin and Hamburg. Within these regions, 50Hertz and its 1,100 employees ensure that 18 million people are supplied with electricity around the clock. 50Hertz is a forerunner in the field of secure integration of renewable energy: in our grid area, more than half of the electricity consumed is already generated from renewable sources, and the trend is rising. The shareholders of 50Hertz are the Belgian Elia Group (80 per cent) and the KfW bank group with 20 per cent. As a European transmission system operator, 50Hertz is a member of the European association ENTSO-E.