

Direct current connections SuedLink and SuedOstLink: grid operators start tenders for underground cables

- **Early tenders should allow manufacturers sufficient preparation time**
- **SuedLink and SuedOstLink require a total of several thousand kilometres of cable**
- **Awarding processes are expected to run until the end of 2019**

Bayreuth, Berlin, Stuttgart, 6 August 2018. Transmission system operators TenneT, TransnetBW and 50Hertz are ensuring the rapid expansion of the energy grids of tomorrow with the SuedLink and SuedOstLink DC connections, two of the world's largest underground cable projects using direct current (DC) technology. With the launch of EU-wide tenders for DC underground cables - the key component of the projects - the transmission system operators are taking a big step towards achieving these connections. From 2025 onwards, the SuedLink and SuedOstLink will transport wind power from the north and north-east of Germany to the economic and industrial centres of Bavaria and Baden-Württemberg over a distance of approx. 700 kilometres for the SuedLink and approx. 580 kilometres for the SuedOstLink. SuedLink will be implemented by TenneT and TransnetBW, SuedOstLink by TenneT and 50Hertz. Tenders are made through the European platform <https://ted.europa.eu>.

The growth of renewable energy is progressing at an enormous pace. However, this positive trend is already pushing the power grid to its capacity limits. The network expansion will bring relief. "The two large DC connections, SuedLink and SuedOstLink, play a particularly important role in the transport of green electricity. Therefore we are accelerating the process and issuing the call for tenders for the underground cable very early. For both connections we need several thousand kilometres of underground cable. "The market must prepare itself for this, so that no bottlenecks occur here," said Lex Hartman, CEO of TenneT. "In addition to speedy completion, the quality and prices of the components have to be also right. An important factor to this is end is the broad competition between suppliers, especially underground cable manufacturers," added Boris Schucht, CEO of 50Hertz. "We are currently certifying suppliers and cable manufacturing facilities worldwide and putting the various DC underground cables through their paces to ensure a reliable and safe technology for the energy transition," added Dr Werner Götz, CEO of TransnetBW.

Federal sector planning is currently ongoing for both the SuedLink and SuedOstLink. At the end of these procedures, the permitting authority, the Federal Network Agency, will determine a corridor of 1,000 metres in width for each of the connections. Only during the subsequent planning approval procedure will the Federal Network Agency decide on the underground cable routes for both connections. The transmission system operators responsible for the respective projects have decided to launch tenders for underground cables early in the process to raise awareness among potential suppliers of the large production volume and the associated logistical challenges.

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The EU-wide tendering process for DC underground cables for the SuedLink and the SuedOstLink is expected to run until the end of 2019.

Open-technology tender

The underground cables are tendered out without predetermining the voltage level. In addition to the 320-kilovolt cable already used in Germany, the 525-kilovolt cable, for which there are now suppliers, is also an option. Prequalification tests are currently taking place on the 525 kilovolt cables that simulates long term loading under real conditions. Only in the case of positive results will the 525 kilovolt cables be considered for use with SuedLink and SuedOstLink.

Efficient implementation of the energy transition

TenneT and TransnetBW are investing about ten billion euros into the SuedLink project. The investments of TenneT and 50Hertz for the SuedOstLink project are of the order of five billion euros. Investments will be amortised over 40 years.

These investments are offset by costs for grid stabilisation measures, which are borne directly and in full by electricity consumers. In 2017, these costs were 1.4 billion euros for Germany as a whole. Grid stabilisation measures are necessary because the existing power grid is not designed for the growing share of renewable energy sources in electricity generation. With connections such as SuedLink and SuedOstLink, these costs are reduced as they will transport decentralised wind and solar power flexibly and safely to customers.

SuedLink and SuedOstLink are “Projects of Common Interest” (PCIs) of the European Union and have been included in the Federal Requirements Planning Act since 2012. Thus, both projects are crucial for the further improvement of the security of supply and the growth of renewable energy. In addition, the European Union supports both projects as part of “Connecting Europe”.

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