

Press release

A vital step forward in the energy transition PORR wins major contract for Elbe crossing in SuedLink project

Düsseldorf, 22 June 2023 - The SuedLink project to construct a powerful direct current transmission line is vital to ensure a secure, stable power supply in the future. It will transport renewable power from wind farms in northern Germany to the south of the country and is a necessary step in the energy transition. The plans for the SuedLink project include a tunnel crossing under the Elbe River. TenneT TSO GmbH, a leading European transmission system operator, has engaged PORR's tunnelling division for the challenging task of establishing the SuedLink connection under the Elbe between Schleswig-Holstein and Lower Saxony. The contract is worth more than EUR 250 million.

"The SuedLink project is crucial for securing the power supply in Germany and we are proud to be contributing to this project. Drawing on our many years' experience in tunnelling, PORR will play its part in completing the Elbe crossing on schedule," said Karl-Heinz Strauss, CEO of PORR AG.

Germany has set an ambitious goal of sourcing at least 80% of its power from renewable energy sources by 2050 - which presents a challenge for the electrical grid, which must be adapted to the modified generation structure in order to ensure a stable and secure power supply in the future. The SuedLink project aims to transport primarily wind-generated power from northern to southern Germany. Two underground high-voltage direct current (HVDC) transmission cables will be able to transmit up to 4 GW across Germany.

A challenge of renewable energy, however, lies not only in distributed generation but also in the fluctuations in feedin levels. The direct current technology in the SuedLink project makes it possible to react to such fluctuations with greater flexibility and to control load flows more effectively. The cables' transmission power is roughly equivalent to the output of four nuclear power stations and could supply power to around ten million households.

A tunnel 20 metres below the Elbe

Construction of the connecting tunnel crossing below the Elbe is scheduled to begin in the autumn of 2023, subject to planning permission. The work will commence with construction of a shaft in Wewelsfleth, Schleswig-Holstein. From there, the 5.2km tunnel will run approximately 20 metres below the Elbe until it reaches its destination: the target shaft at Wischhafen, Lower Saxony. As the two shafts are at groundwater level, the construction pits for the two shifts will have to be made waterproof with diaphragm walls of up to 50m deep prior to excavation - a challenging proposition.

The 25m-deep construction pit will then be excavated underwater, drained and secured with steel girders. At that point, the tunnel-boring machine manufactured specifically for this project will be assembled. It is designed to cope with the variable soil composition below the Elbe. The tunnel will be completed using segmental lining. The access infrastructure required for subsequent use will be constructed in Schleswig-Holstein and Lower Saxony during the tunnel boring phase.



Facts and figures at a glance:

Project type: Tunnelling

Project scope:	5.2km-long tunnel crossing below the Elbe River; construction pits with diaphragm walls, reinforcement piles, underwater excavation and underwater concrete; hydro- shield tunnelling with segmental lining; company buildings, open-cut tunnel and reinforced concrete cable pits; technical equipment in the tunnel and in company buildings and transmission infrastructure; conventional and BIM-based execution planning
Employer:	TenneT TSO GmbH
Contractor:	PORR GmbH & Co. KGaA / PORR AG
Construction start:	Autumn 2023
Completion:	Summer 2027

Visualisations:



TenneT TSO GmbH, a leading European transmission system operator, has engaged PORR's tunnelling division for the challenging task of establishing the SuedLink connection below the Elbe, between Schleswig-Holstein and Lower Saxony. © TenneT TSO GmbH

 Rickverfülung der Baugub 3. Wiederherstelien der Baugub 1. Niederherstelien gebudes ins Landschaftsbild

Phase 6: Bau fertigstellen und Betriebsgelände landschaftlich gestalten

The tunnel will run 20m below the Elbe River. © TenneT TSO GmbH





PORR CEO Karl-Heinz Strauss © Astrid Knie

This press release, including high-resolution images, is available to download from the PORR Newsroom.

About the PORR Group

Driving innovation to achieve excellence - that has been PORR's mission for over 150 years. With around 20,000 employees and a production output in the region of EUR 6.2 billion (FY 2022), PORR is one of the largest construction companies in Austria and a leading player in Europe. As a full service provider, PORR offers a full range of building construction, civil engineering and infrastructure construction services, spanning the entire value chain. It focuses on its home markets of Austria, Germany, Switzerland, Poland, the Czech Republic, Slovakia and Romania. However, PORR also operates in selected international project markets, such as Norway, the UAE and Qatar. PORR shares are listed in the Prime Market segment on the Vienna Stock Exchange.

About PORR GmbH & Co. KGaA

PORR GmbH & Co. KGaA in Germany is part of the listed PORR AG and has around 2,300 employees. As a technology leader with expert teams at its disposal, it plans and executes projects safely and economically to realise ambitious, individual customer requests. The company's extensive expertise enables it to deliver customised solutions. Its service portfolio ranges from general planning to turnkey construction. The use of modern methods and technologies, such as Building Information Modelling (BIM) and LEAN Management, allow the company to realise construction schemes safely and economically. In Germany, PORR operates in the fields of building construction, industrial construction, civil engineering, tunnelling, transport infrastructure construction, specialist civil engineering, steel construction and environmental engineering.



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