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Vortrag

Donnerstag, 10. Oktober 2024, 12:10 Uhr

SuedLink: Purpose, Cable & Laying, Future Outlook

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Lecture

Thursday, 10th October 2024, 12:10 pm

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1 Suedlink – Purpose, Cable & Laying, Future Outlook

1.1 Overview & Status Qo

Suedlink is one of Europe’s largest green energy transition pro-ject with a total lengt of 700km cable. SuedLink will transmit up to 4GW of energy (sufficient for up to 10 million households) and uses next level technology with a 525kV voltage level.

Construction phase has been started in 2023 with the ground-breaking event in northern Germany for the ElbX tunnel excava-tion works. Meanwhile, construction started in several disjunct places along the route and civil works at converter stations has begun. Until end of 2024, most permits will be granted. Commis-sioning and first energy transmission are expected in 2028.

1.2 Why do we need SuedLink

The progression of the energy transition and the availabi-lity of large amounts of green solar power (southern Ger-many) and wind power (northern Germany) leads to ex-cessive redispatch costs. By transporting energy between north and south, SuedLink is expected to hugely decrease redis-patch cost and stabilize the grid even further.

1.3 Challenge cable laying

Huge projects come with huge difficulties – and SuedLink is no different. Cable will be trans-ported on 100t drums (total weight of transport: 180t). SuedLink will conduct ap-prox. 1.700 heavy duty transports.

On the civil side, SuedLink often uses HDDs to cross in-frastructure and/or envi-ronmental sensitive areas. It’ll be a total of 4.500 HDDs to be drilled – this is a mas-sive challenge for the market, as personnel and machinery (especially large HDD rigs) are scarce.

1.4 The future: DC supergrid

To no one’s surprise, Suedlink will only be the beginning of something great: 525kV DC en-ergy transition will become a new grid level above the existing 380kV AC grid. This su-per grid will stabilize Europe’s energy system and streng-then its leading role into the transition of green energy.