

A large-scale offshore wind farm is shown in the background, with numerous white wind turbines with three blades each, spaced out across a vast blue sea under a clear blue sky. The turbines are reflected in the calm water.

The joint grid connection project „Seetrassen 2030“

a cooperation between Amprion and TenneT



Agenda

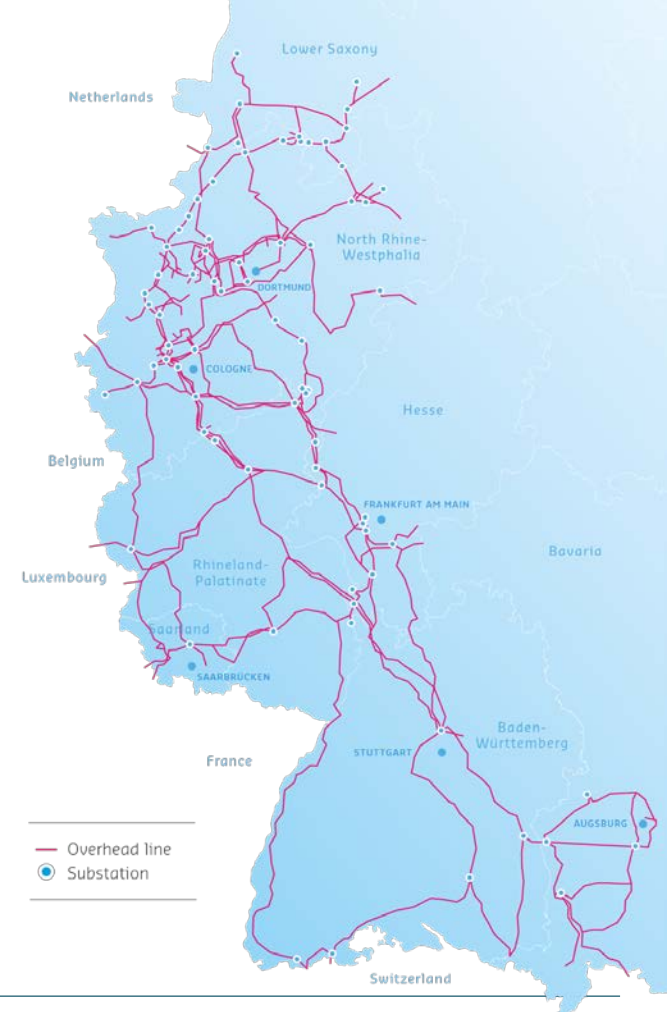
- Amprion & TenneT
- Why do Amprion & TenneT operate and expand the offshore grid?
- Offshore Grid Expansion 2040
- Corridor Development North Sea/Coastal Zone & „Seetrassen 2030“

OUR POWER GRID – LIFELINES OF THE ECONOMY

A stable power grid provides the basis for a secure supply of energy and a strong, efficient economy. Responsibility for the extra high-voltage grid in Germany rests with four transmission system operators (TSO). **Amprion** is one of them. The TSO are also responsible for the connection of offshore wind farms to the extra high-voltage grid.


Amprion GmbH is based in Dortmund.


Our high-voltage grid transmits the power for almost 29 million people in an area from Lower Saxony to the Alps.



TenneT

Europe's 1st cross-border TSO

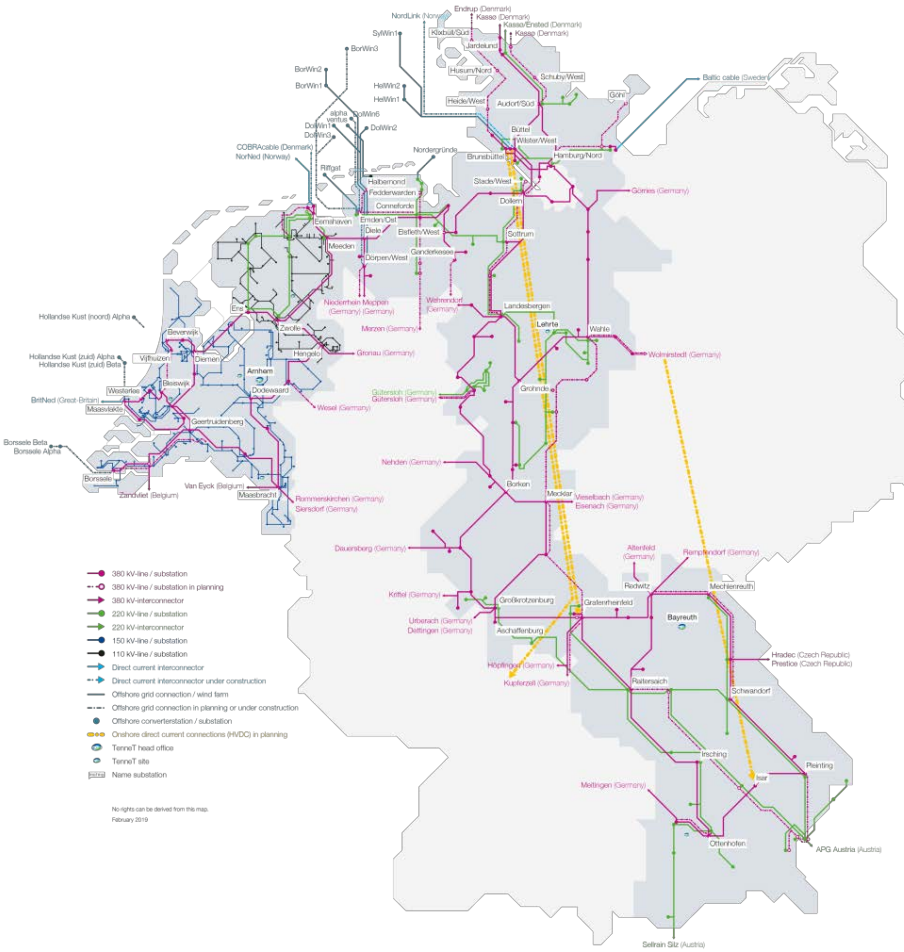
- Offshore transmission capacity (Germany and the Netherlands)
 -  **8.532 MW**

-  **99.9998%** grid availability

- 42 Mio.** customers

- total grid length **23,500 km**

-  **5,000** employees



Why do Amprion & TenneT operate and expand the offshore grid?

- Offshore grid connection systems connect offshore windparks with the transmission system onshore
- §17d (1) EnWG – connection obligated transmission system operator:

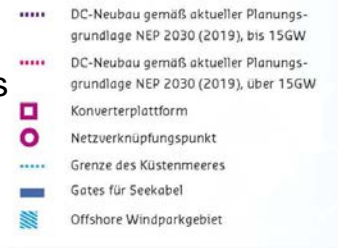
„Betreiber von Übertragungsnetzen, in deren Regelzone die Netzanbindung von Windenergieanlagen auf See erfolgen soll [...] haben die Offshore-Anbindungsleitungen [...] entsprechend den Vorgaben des Netzentwicklungsplans und des Flächenentwicklungsplans [...] zu errichten und zu betreiben. [...]“

- Until now grid connection points for the North Sea close to shore in TenneT's grid area
- Potential for grid connection points close to shore exhausted
- Current development: Offshore grid connection systems further south, among others in Amprion's grid area (e.g. Lingen area)

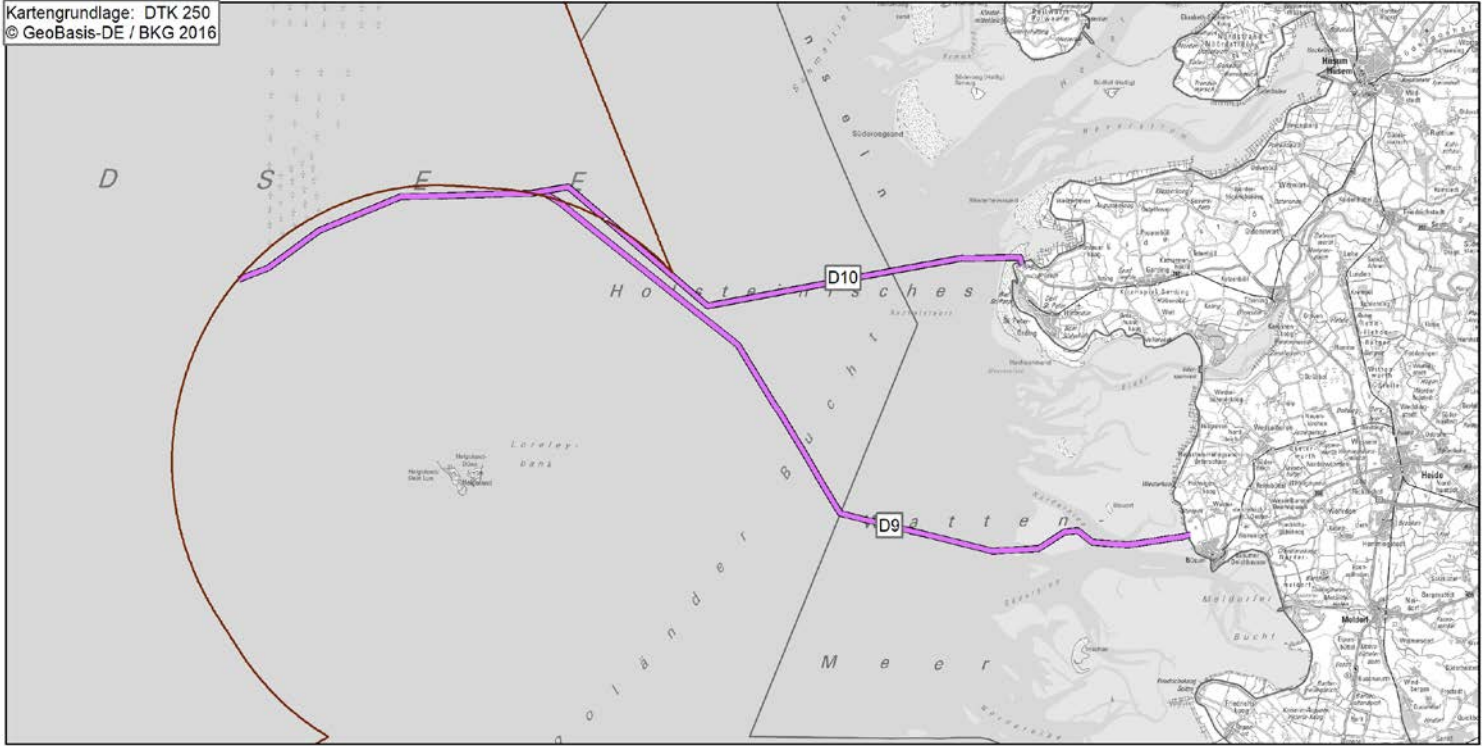
Offshore Grid Expansion 2040

- Status quo until November: § 1 para. 2 WindSeeG
„15 GW bis zum Jahr 2030“
- Revision of WindSeeG (5th November 2020):
„Ziel dieses Gesetzes ist es, die installierte Leistung von Windenergieanlagen auf See, [...] auf insgesamt 20 Gigawatt bis zum Jahr 2030 und auf insgesamt 40 Gigawatt bis zum Jahr 2040 zu steigern.“

→ Increase of installed production capacities requires additional grid connection systems

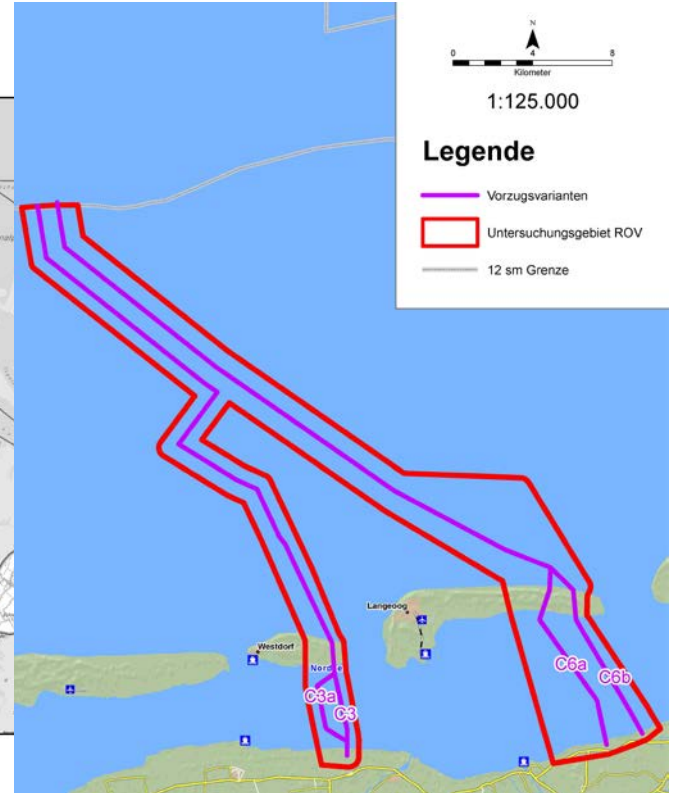
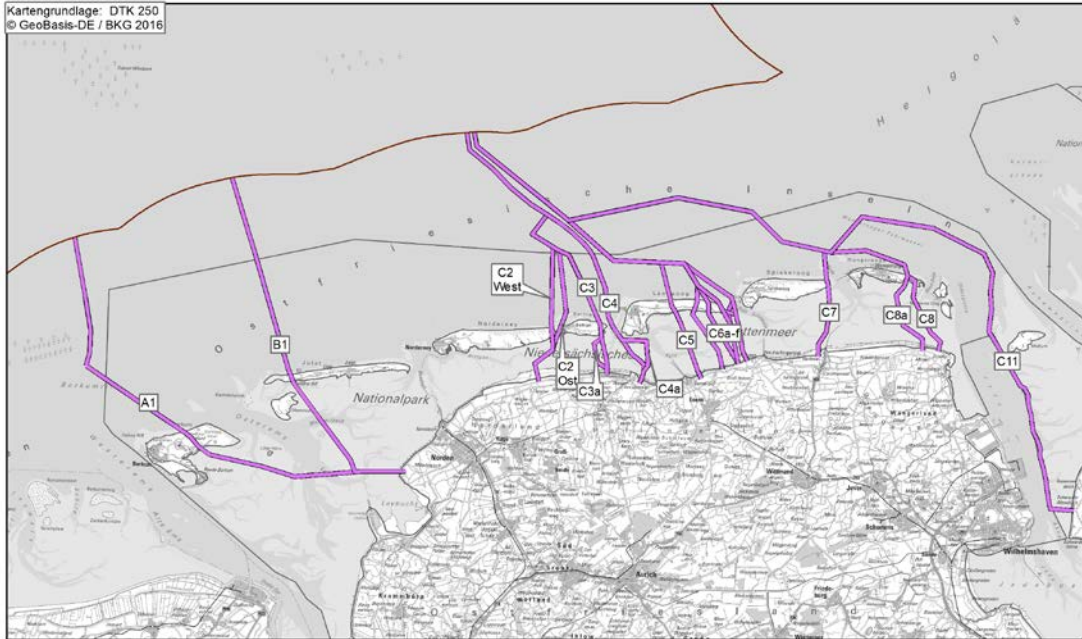


Corridor Development North Sea/Coastal Zone: Schleswig-Holstein



„Seetrassen 2030“ - Spatial Planning Procedure

Kartengrundlage: DTK 250
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Many thanks for your attention!

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