

Riffgat

80-kilometre-long and 113-megawatt-strong alternating current connection



Cable length

50 km submarine cable
and 30 km land cable



Grid connection point

Substation Emden/Borssum
(220 KV)



Status of project

In operation
since February 2014



Photo: Offshore wind farm in the North Sea



About the project

After alpha ventus, Riffgat is the second offshore grid connection that TenneT has connected to the transmission grid in Germany using three-phase current technology. The wind farm of the same name is located within the twelve nautical mile zone of Lower Saxony, about 15 kilometers northwest of the East Frisian island of Borkum and thus about 50 kilometers from the coast. Due to the proximity to the mainland and the installed total output of 113 megawatts. It was technically and

economically most efficient to realise Riffgat as an individual three-phase alternating current connection. The 80 kilometer 155-kilovolt connection (kV) will be connected to the 220-kV grid via the Emden/Borssum substation. Laying the undersea cable off the coast of Borkum was technically extremely demanding, as the route led along a dumping area for World War II ammunition. For more than 18 months, 30 tons of ammunition had to be recovered and disposed of with the utmost care and effort before the grid connection could go into operation.

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Lighting the way ahead together

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