



## Offshore Wind Farm “alpha ventus” 110/30 kV transformer station on an offshore platform



Contract value: € 8.5 Mio.  
Completion: October 2008

### Scope of deliveries and services

- > Gas-insulated h.v. switchboard, 110 kV
- > Gas-insulated m.v. switchboard, 30 kV
- > 30 kV earthing transformer
- > 30/0.4 kV auxiliary transformer
- > Control system
- > 115/30 kV sealed transformer, 75 MVA
- > 110 kV shunt reactor, 10 Mvar (supply by end of 2009)
- > Emergency power generator 550 kVA.

Germany aims to increase the proportion of renewable energies from currently approximately 14 % up to 25 to 30 % till 2020. Wind energy will take a high significance in this future energy mix. The Federal Government especially focuses on offshore wind power installations during the years to come.

AREVA T&D gained its first offshore experiences in England. The company supplied components for the wind farms Robinrigg and Barrow. In the context of the first German offshore wind farm “alpha ventus” in the North Sea, AREVA T&D obtained the order to deliver the high-voltage transformer-station platform.

Customer of this major project is the Deutsche Offshore-Testfeld- und Infrastruktur GmbH & Co. KG, a joint venture of

E.ON Climate & Renewables, the Oldenburger EWE AG, and Vattenfall Europe New Energy GmbH.

The wind farm “alpha ventus” comprises twelve 5 MW wind generators. Two 30 kV sea cable rings connect six wind generators each with the offshore platform. The power will be transformed to 110 kV at the platform and will then be delivered to shore by a further 70 km sea cable.

This sophisticated transforming station poses great demands in terms of technology as well as project management – an additional impetus for AREVA T&D to prove its capabilities.

