NordE.ON 1

The worlds largest offshore wind farm cluster will be connected to the German grid by a 400 MW HVDC Light® transmission system.

The German utility E.ON Netz GmbH has awarded a contract to ABB to supply the power equipment that will integrate the world's largest offshore wind farm into the German grid.

CAD drawing of the platform that will bear the HVDC Light® station.

The Borkum 2 wind farm will be developed by BARD Engineering GmbH. It will consist of 80 wind generators of 5 MW located about 130 km from the coast in the North Sea. The generators will feed power into a 36 kV AC cable system which will transformed to 154 kV for the HVDC Light® offshore station. The receiving station will be located at Diele 75 km from the coast where the power will be injected into the German 380 kV grid.

ABB is responsible for system engineering including design, supply and installation of the offshore converter, sea and land cable systems and the onshore converter.

The cables will be laid underwater and underground, thus minimizing environmental impact.

Main data	
Commissioning year:	2009
Power rating:	400 MW
No of circuits:	1
AC Voltage:	170 kV (offshore), 380 kV (Diele)
DC Voltage:	±150 kV
Length of DC underground cable:	2 x 75 km
Length of DC submarine cable:	2 x 128 km
Main reason for choosing HVDC Light:	Length of land and sea cables.

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