

Inauguration of the Arkona wind farm on 16 April 2019

CdA asserts itself as a key player of the European energy transition

Chantiers de l'Atlantique (CdA), one of the leaders in European maritime industry, is associated with the official inauguration of the Arkona offshore wind farm, which will take place on 16 April on Rügen Island (north-east of Rostock), in the presence of Angela Merkel, Federal Chancellor of Germany and many other personalities.

For this offshore wind farm consisting of 60 wind turbines rated at 6+ MW each, developed by the German energy company E.ON and the Norwegian company Equinor (formerly Statoil) and connected to the electricity network by the German transmission system operator 50Hertz, Chantiers de l'Atlantique, through its Atlantic Offshore Energy Business Unit, designed, built, installed and commissioned the largest electrical substation* ever built in a single module. With a weight of more than 4,000 tonnes and a capacity of 385 MW, the substation transfers the carbon-free electricity produced by wind turbines to the equivalent of 400,000 households in Germany.

Ordered in June 2015, the substation consists of a topside 50 metres long, 35 metres wide and 15 metres high, entirely designed and built by Chantiers de l'Atlantique in Saint-Nazaire (Loire-Atlantique), then transported in February 2018 by barge to its installation location in the Baltic Sea, about 35 kilometres off the coast of Rügen Island.

This "smart", fully automated substation is designed to be able to manage the wind farm autonomously, without human intervention, thanks to a large electronic PLC system.

Chantiers de l'Atlantique also provided the foundation for the substation, a 53-metre high jacket structure with a total weight of 1,800 tonnes. The unit was delivered ahead of schedule and commissioned and to the customer in the summer of 2018.

This "turnkey" project, completed in record time, testifies to the excellent cooperation between the German, Norwegian and French experts in marine renewable energy. It also reflects the expertise of the teams at Chantiers de l'Atlantique, who applied the processes and technologies learned through building large complex ships to design this substation, achieving weight savings of around 20% on the metal structure, which significantly reduced construction costs and facilitated the installation.

Chantiers de l'Atlantique is clearly one of the leaders in the European energy transition, with the completion of the Arkona substation and the first two substation projects for the Westernmost Rough Offshore Parks for Orsted (formerly Dong Energy) (2014), and Rentel (2018), both located in the North Sea (in Great Britain and Belgium respectively). In all, the electrical substations built by Chantiers de l'Atlantique transmit 1,000 MW of carbon-free electricity, equivalent to the consumption of one million households.

"We are proud to be associated with the success of this project, which will be a benchmark in European offshore wind energy. The dedication of our teams over these three years in satisfying leaders in the energy sector, such as Eon, Equinor and 50Hz, has been rewarded. We are also honoured by the presence of several high level politicians, which confirms the success of this Franco-German cooperation and their dedication to the European energy transition," said Frédéric Grizaud, Director of the Marine Energy Business Unit.

*Electrical substations are key elements for the operation of offshore wind farms. These structures, often weighing over 2,000 tonnes, transform the electricity produced by the wind turbines and can transfer it up to 100 kilometres to land. They also serve as relays for remote control of the wind farms. Fully automated, they are designed to withstand extreme marine environments, with the easiest possible maintenance.

About Chantiers de l'Atlantique:

With 150 years of expertise, Chantiers de l'Atlantique is one of the market leaders worldwide for highly complex ships and offshore installations, thanks to state-of-the-art industrial facilities and renowned expertise in designing, integrating, testing, and delivering turnkey maritime solutions

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