

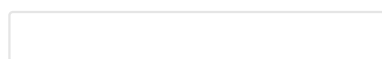


—  
**Extrae la máxima energía del viento**  
Con las soluciones tecnológicas  
más avanzadas



# Iberdrola will implement the Romeo R&D project at its Wikinger offshore wind farm

News Themes Wind Feb 22, 2018



Iberdrola shall implement the ROMEO project at its Wikinger offshore wind farm, one of the most ambitious R&D initiatives at this time for improving efficiency in the offshore wind energy sector. Wikinger will be the test scenario for one of the three pilot projects being undertaken within the framework of this initiative, which is being financed by the Horizon 2020 Programme of the European Union and led by Iberdrola.

The Wikinger wind farm, with a total of 350 MW of installed power, will be capable of supplying renewable energy to 350,000 homes, with consumption equivalent to more than 20% of the energy demand of the state of Mecklemburg and Western Pomerania, where the wind farm is located.

With an investment of around 1.4 billion euros, Wikinger will avoid the emission of almost 600,000 tonnes of CO<sub>2</sub> into the atmosphere per year. During the wind farm's erection, 280 piles, constructed by the Asturian company Windar, were fixed to the seabed. Furthermore, 70 jackets (foundations) were manufactured by the Spanish company Navantia, at Fene's shipyards in A

Coruña, and by the Danish company Bladt, at Lindo, Denmark. Regarding the turbines, 5 MW unit capacity model AD 5-135, were developed by Siemens Gamesa at its Bremerhaven and Stade plants in Germany.

### **A commitment to offshore wind energy**

The ROMEO project, launched in June 2017, aims to reduce the operation and maintenance costs at offshore wind farms through the use of advanced monitoring strategies and systems, as well as to analyse the performance of the wind farm turbines in real time.

The consortium of the project, made up of European companies and entities covering the entire value chain of the sector, is working on the development of an analytical and management platform enabling the decision-making process to be improved and facilitating the development of current Operation and Maintenance (O&M) strategies based on corrective measures to innovative strategies in real time, and on the degradation of the components of the main wind farm structures.

Furthermore, Romeo will develop an Internet of Things and cloud-based platform which will accommodate models for diagnosing and predicting faults in the systems. This platform will promote better understanding of the real-time performance of the main wind turbine components in operation and their current status. With this system, their useful life may be extended and their operation and maintenance costs reduced.

The innovations of the project will also be tested at the Teeside wind farms already in operation in East Anglia 1, the latter also owned by Iberdrola.

The ROMEO project, due for completion in 2022, consists of a consortium made up of 12 entities from 6 EU member states and one associated country. In addition to Iberdrola Renovables Energía, which will lead the project, the consortium will include major companies (Electricité De France, ADWEN, Siemens Gamesa, RAMBOLL, IBM Research Zurich, INDRA, BACHMANN Monitoring), SMEs (LAULAGUN Bearings, UPTIME Engineering, ZABALA Innovation Consulting), and the Cranfield University.

*Source: Zabala Innovation Consulting*

