

NEXANS SUPPLIES CABLES FOR THE WORLD'S FIRST 66 KV OFFSHORE WIND FARMS

Nexans has been involved in three pioneering 66 kV wind farm pilot projects in the North Sea over the past two years.

Paris-La-Défense, September 26, 2018 – As offshore wind turbines continue to grow in size and power output, wind farm developers and operators are preparing to switch over to 66 kilovolt (kV) technology rather than the current 33 kV technology. This is because operating at the higher voltage offers important lifecycle cost-efficiency benefits such as the possibility of reducing the number of substations required as well as reducing the length of cables that need to be installed.

From the first half of 2018 the advantages of 66 kV technology have started to be proved in three pilot projects, with the Blyth Offshore Demonstrator (UK), Nissum Bredning Vind (DK) and Aberdeen Bay (UK) wind parks all successfully connected to the grid and generating power. Nexans has played an important role in these projects by supplying a range of products and accessories including 66 kV sea cables (array and export cables), power cable accessories (equipment bushings, connectors, coupling connectors, surge arresters, dead-end receptacles, junction cabinets), GPH® connection technology and pre-assembled cables.

The **Blyth Offshore Demonstrator**, 6 km off the UK coast, is a pilot plant constructed by the Renewable Energies Division of the French energy group EDF. With a total capacity of 41.5 MW, produced by five V164-8.0 turbines from MHI Vestas Offshore Wind, it has produced low-carbon power for about 34,000 homes since January 2018. Nexans delivered pre-assembled cable jumpers to connect transformers and switchgear, sea cables for the array cabling and connectors to connect the array cables to the wind turbine switchgear. The transformers were assembled with EUROMOLD® bushings and surge arresters. In addition, pre-assembled junction cabinets, export cables and connectors to connect the wind park to the existing power grid were used. The cable lengths were pre-assembled and electrically tested at Nexans Power Accessories in Hof, Germany. The installation teams were comprehensively trained in how to use the EUROMOLD® connectors and the GPH® connection technology at the Nexans HV Training Center in Hof in order to make future projects as safe and efficient as possible. The sea cables, with a diameter of 127 mm, were produced in Hanover and delivered in one continuous length in 2017.

The general contractor responsible for the **Nissum Bredning Vind project** is Siemens Wind Power A/S. In the Danish North Sea, four Siemens Gamesa turbines of the SWT-7.0-154 type with a total capacity of 28 MW were installed. Nexans delivered EUROMOLD® connectors and three core cables for the tower cabling, equipment bushings and surge arresters to the Siemens transformer plant in Weiz/Austria and connectors to connect the array and export cabling. The installation teams were trained at Nexans in Hof.

Located off the Scottish North Sea coast, the **Aberdeen Bay** Vattenfall project, also known as the Offshore Wind Deployment Centre (EOWDC), represents the largest of the three European pilot plants with 11 V164-8.4 and V164-8.8 turbines especially engineered by MHI Vestas Offshore Wind and an installed total capacity of 92.4 MW. In addition to training in the installation of accessories, Nexans Power Accessories was also responsible for manufacturing 66 kV cable jumpers to connect the transformers and switchgear. The accessories and cable jumpers were shipped via the cable plant in Moenchengladbach, Germany. Equipment bushings and surge arresters were shipped to ABB Finland, the transformer manufacturer.

Nexans is currently the world's only supplier that is able to equip this new generation of wind parks with a complete in-house portfolio of state-of-the-art cables and standardised connection solutions suitable for a maximum operating voltage of 72.5 kV. The 66 kV installations to date are pilot projects and the experience and results obtained will have significant impacts on future offshore wind projects.

About Nexans

Nexans is a global player in energy transition. Our purpose: electrify the future. For over a century, Nexans has played a crucial role in the electrification of the planet. With around 25,000 people in 38 countries, the Group is leading the charge to the new world of electrification: safer, sustainable, renewable, decarbonized and accessible to everyone. In 2020, Nexans generated 5.7 billion euros in standard sales.

The Group designs solutions and services along the entire value chain in three main business areas: Building & Territories (including utilities and e-mobility), High Voltage & Projects (covering offshore wind farms, subsea interconnections, land high voltage), and Industry & Solutions (including renewables, transportation, oil and gas, automation, and others).

Corporate Social Responsibility is a guiding principle of Nexans' business activities and internal practices. As a signatory of the Global Compact since 2008, Nexans is committed to contribute to a responsible global economy and strives to promote the ten principles defined by the UN to all its stakeholders. The Group pledged to contribute to carbon neutrality by 2030 and was the first cable provider to create a Foundation supporting sustainable initiatives bringing access to energy to disadvantaged communities worldwide. Nexans' commitment to developing ethical, sustainable and high-quality cables also drives its active involvement within leading industry associations, including Europacable, the NEMA, ICF and CIGRE.

Nexans is listed on Euronext Paris, compartment A.

For more information, please visit www.nexans.com

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