

PRESS RELEASE



15 May 2014

DolWin3 grid connection moves forward Ground-breaking ceremony for new converter station in Dörpen West, Germany

- Important milestone for third grid connection in the DolWin cluster
- TenneT and Alstom create a 900 megawatts Direct Current connection

On Thursday 15 May 2014, the ground-breaking ceremony for the onshore converter station takes place at the Dörpen West site in Heede, Germany, with representatives of Transmission System Operator TenneT, contractor Alstom and the mayors of the joint municipalities of Dörpen and Heede taking part, together with local and regional politicians and public figures.

The onshore station is a key part of the 900 MW High Voltage Direct Current (HVDC) transmission grid connection; it will link major wind farms in the south west of the German North Sea to the onshore transmission grid. The connection is scheduled to be completed by 2017.

"DolWin3 is pivotal to offshore wind energy, and will contribute significantly to the future of energy supply", says TenneT's Offshore Managing Director, Wilfried Breuer. "We are happy that we can once again use combined European expertise for the implementation of clean energy generation offshore".

"As general contractor, Alstom will build the complete infrastructure to transport offshore wind power via HVDC technology to the onshore grid, with low electric losses. Alstom has over 50 years of experience in HVDC technology and this project showcases our latest innovation in transmission. At the same time we are proud to contribute to Germany's energy transition" said Gerhard Seyrling, Alstom Grid's Vice President for Central & Eastern Europe and Russia.

The DolWin3 project is the third connection in the offshore DolWin wind farm cluster in the German North Sea. It will use Direct Current (DC) technology with voltage source converters (VSC) to deliver the energy generated at sea through an 83 kilometres (km) sea cable to the mainland. From the coast, the wind power will then be transported another 79 km via an underground cable to the Dörpen West converter station.

DC links are particularly suitable for transmitting electricity over long distances at high power levels, and the best way to link to large offshore wind farms where the power flow is intermittent and needs to be captured when it is available.

The DolWin3 grid connection ensures that TenneT meets its obligations under the German Renewable Energy Sources Act (EEG), guaranteeing the reliable transport of offshore wind power on land. The energy generated offshore will be transported via the Dörpen West substation towards the major consumption areas located in the west and south of Germany.

About TenneT

TenneT is the first cross-border transmission grid operator for electricity in Europe. With around 21,000 of high-voltage and extra-high-voltage lines and 36 million end users in the Netherlands and Germany we are one of the top-5 grid operators in Europe. Our focus is on the development of the energy market in north-western Europe and on the integration of renewable energy sources.

Taking power further

About Alstom

Alstom is a global leader in the world of power generation, power transmission and rail infrastructure and sets the benchmark for innovative and environmentally friendly technologies. Alstom builds the fastest train and the highest capacity automated metro in the world, provides turnkey integrated power plant solutions and associated services for a wide variety of energy sources, including hydro, nuclear, gas, coal and wind, and it offers a wide range of solutions for power transmission, with a focus on smart grids. The Group employs 93,000 people in around 100 countries. It had sales of over \notin 20 billion and booked \notin 21.5 billion in orders in 2013/14.

Press contacts:

For TenneT Mathias Fischer – Tel.: +49 5132 89-2308 <u>mathias.fischer@tennet.eu</u>

For Alstom

Virginie Hourdin / Claire Biau - Tel. +33 1 41 49 21 36 / 39 95 virginie.hourdin-bremond@chq.alstom.com; claire.biau@alstom.com

Aline Besselièvre / Elizabeth Wang (Alstom Grid) - Tel.: +33 1 49 01 67 60 / 61 23 aline.besselievre@alstom.com / Elizabeth.wang-ext@alstom.com

Beatrix Fontius (Alstom Germany) - Tel.: +49 621 329-2547 beatrix.fontius@alstom.com

Delphine Brault, Anouch Mkhitarian (Investors Relations) - Tel. +33 1 41 49 26 42/25 13 delphine.brault@chg.alstom.com, anouch.mkhitarian@chg.alstom.com