

Nexans successfully qualifies a 525 kV HVDC underground cable system to German TSO standards

- *Nexans High Voltage Direct Current (HVDC) cable systems are set to play a key role in Germany's energy transition following their qualification for use at the highest voltage to date.*
- *Deploying the up to 2 gigawatt (GW) cable systems will enable the German Transmission System Operators (TSOs) to optimize their investment in cables and civil works for carrying renewable energy over long distances.*

Paris La Défense, November 30, 2018 – Germany's 'Energiewende', the transition in energy policy to focus on renewable sources of energy, is presenting significant challenges for the country's transmission grid. In particular, Germany's TSOs must transmit huge amounts of renewable energy over long distances from the north to demand centers in the the south and they are now building some of the world's longest ever underground cable projects. Nexans has responded to this challenge by qualifying its HVDC cable systems for the German TSOs for operation at 525 kV, a major voltage increase that enables them to carry much more power than the previous industry-standard cables.

HVDC technology offers significant advantages for transmitting large amounts of power over long distances thanks to its improved power carrying capacity, lower losses and reduced cable footprint compared with conventional alternating current (AC) cable systems. However, Germany's four TSOs - 50Hertz, Amprion, TenneT and TransnetBW – were looking for a significant increase in power capacity over the industry-standard 320 kV HVDC underground land cables.

Nexans developed an HVDC cable system, based on a triple extruded cross-linked polyethylene (XLPE) insulation design, to operate at a ground breaking voltage of 525 kV, with a power rating of 2 GW. In a one-year test programme under real outdoor installation conditions at the third party test facility STRI in Sweden with ambient temperatures from -20°C during winter time and upto +31°C during summer time, the Nexans HVDC cable system has successfully demonstrated it's reliability and performance.

Deploying the 525 kV cable will enable the TSOs, which attended the prequalification, to transmit much more power with a cable of the same cross-section. In some projects this could eliminate the need to construct an additional circuit, resulting in savings on cable infrastructure and civil works as well as reducing the installation footprint.

*"Qualification of our 525 kV HVDC cable systems with Germany's TSOs is an important breakthrough for Nexans at both the technology and commercial levels," says **Johannes Rothfeld, Nexans Strategic Account Manager for German TSOs.** "It also illustrates the advantages of Nexans as a complete system supplier for HVDC cable systems as our capability to offer full turnkey solutions with local support for engineering, project management and installation was a vital factor in obtaining this qualification."*

About Nexans

As a global leader in advanced cabling and connectivity solutions, Nexans brings energy to life through an extensive range of best-in-class products and innovative services. For over 120 years, innovation has been the company's hallmark, enabling Nexans to drive a safer, smarter and more efficient future together with its customers. Today, the Nexans Group is committed to facilitating energy transition and supporting the exponential growth of data by empowering its customers in four main business areas: Building & Territories (including utilities, smart grids,

e-mobility), High Voltage & Projects (covering offshore wind farms, submarine interconnections, land high voltage), Telecom & Data (covering data transmission, telecom networks, hyperscale data centers, LAN), and Industry & Solutions (including renewables, transportation, Oil & Gas, automation, and others).

Corporate Social Responsibility is a guiding principle of Nexans' business activities and internal practices. In 2013 Nexans became the first cable provider to create a Foundation supporting sustainable initiatives bringing access to energy to disadvantaged communities worldwide. The Group's commitment to developing ethical, sustainable and high-quality cables drives its active involvement within several leading industry associations, including Europacable, the National Electrical Manufacturers Association (NEMA), International Cablemakers Federation (ICF) or CIGRE to mention a few.

Nexans employs more than 26,000 people with industrial footprint in 34 countries and commercial activities worldwide. In 2017, the Group generated 6.4 billion euros in sales. Nexans is listed on Euronext Paris, compartment A.

For more information, please consult: www.nexans.com

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