HIGH VOLTAGE ENERGY TRANSMISSION
Nexans Land High Voltage contributes ...

to ensure the reliability and efficiency of many of the world’s power transmission networks. Our expertise ranges from securing steady supplies of designing high-performance High Voltage cables and accessories to providing installation and training support, and helping our clients to recycle safely and efficiently. XLPE-insulated High Voltage cables have been manufactured since 1971 in a larger scale. The increasing trend to use mainly XLPE-insulated cables for higher voltages throughout the world was also brought up by the successful manufacturing, testing and operation of 500 kV cable systems.

**Ecodesign:**

Corporate Social Responsibility (CSR) is the vehicle used to implement sustainable development strategy within Nexans. The three fundamental principles of sustainable development – i.e., the economic, social, and environmental aspects of doing business – are integrated into Nexans strategy and its operations and relationships with its stakeholders. Nexans excels in competency with the environmental aspects of products and services. We can provide you support on exploiting the environmental footprint of our products and on developing products and services with reduced environmental impact – so-called Ecodesign. We can provide various sustainable cable systems, including replacement of bare copper conductors or lead sheaths and using dry accessories. Your system design decision will be supported by current-carrying and line-loss calculations, carbon footprint calculations, life cycle assessments, environment impact assessments, and TCO calculations.

We assist our clients in upgrading their specifications to assure more sustainable system characteristics involving design, delivery lengths, dry accessories, line losses, and installation.

It is Nexans strategy to push the environmental aspect by offering the best economic solution in the view of total cost of ownership. But we realize that changes in specifications demand careful consideration and qualified decisions, in collaboration with our clients, to ensure a reliable cable system.

On request we would be glad to send you data on type and prequalification tests and reference lists of customers who use various cable designs and new accessories.
HIGH VOLTAGE CABLE SYSTEMS

TUNNEL APPLICATIONS
Extra High Voltage City Links
The structural design of this fire-retardant cable for tunnel application assures reduction of fire spread, low-corrosive smoke, as well as robust mechanical properties and protection of human lives and customer assets. These up to 500-kV extra high voltage cables satisfy the growing demand for power transmission within megacities.

PARTIAL UNDERGROUNDING
Bring OHL Underground
With these cable types, Transmission System Operators can enhance the acceptance of new transmission lines and speed up their permission phase by partially relocating overhead lines underground in residential areas. High-performance conductors increase current-carrying capacity or save copper costs. Nexans has successfully implemented one of the first German 400-kV partial undergrounding project in Raesfeld, Germany, and in Stevin, Belgium, where high voltage underground cables join up with safe and high-performance LO- SAG® overhead lines.

XLPE PIPE TYPE CABLES
Replacing High Pressure Paper Cables
Obsolete fluid- or gas-pressure cables can be replaced by using existing pipes and pulling in new three-core XLPE PipeType cables. This solution reduces civil works in cities and improves in most cases the power capacity of the line. These cables are available today up to 245 kV, including step-up and transition joints for various technologies.
HVDC CABLE SYSTEMS
Long Distance Energy Transmission

DC cable systems can be used for long-distance and high-energy transmission. Transmission system operators can use HVDC for submarine interconnections, for the connection of offshore wind farms by using VSC converters, and for energy highways in their transmission networks. Nexans has qualified a full set of 320 kV XLPE cables and accessories and has type-tested a 525 kV XLPE cable system. With DolWin 6, Nexans won the first reference order for this type of DC XLPE cables. For submarine applications and higher voltages, Nexans offer state-of-the-art, mass-impregnated paper-insulated cables.

TEMPORARY SITE CABLES
Keeping Electricity Available

Temporary site cables are an ideal tool for keeping electricity available. They reduce disconnection time for transmission lines during conversion of substations and overhead lines. In emergency cases, cables with pre-installed flexible terminations can be simply rolled out and installed quickly. The cables can be rechecked for partial discharge after being used.
HIGH VOLTAGE CABLE SYSTEMS

HV ACCESSORIES
Safety and Reliability First
With our new 170-kV dry flexible terminations and our anti-explosion terminations up to 420 kV, Nexans has qualified safety-first products. Nexans delivers fully developed and qualified high voltage accessory systems from 72.5 to 550 kV.

EXPORT CABLES
Off- and Onshore Wind Farms
Nexans offers solutions for reliable and economic onshore and offshore connections – as well as full frontend engineering design for combined submarine and land cable systems. Nexans engineering services include geotechnical surveys, cable system engineering, and risk assessments from the initial study to turnkey principal-contractor deliveries.

SUBMARINE MV
OWF, Island, and Lake Crossings
Inter-array cabling up to 66 kV is for offshore wind farm owners who need to transfer energy between offshore wind turbines and platforms. Nexans provides you highest-quality cable and accessories, including installation and testing services. These cables can be adapted to lake crossings and island or lighthouse connections.

WINDLINK®
OVERHEAD LINES
Uprate your Transmission

Our high-performance LO-SAG® conductors with composite cores reduce sag and weight, dispatching more energy and reducing line losses: they are an ideal solution to avoid modifying existing towers.

ACSS high-temperature conductors with steel cores increase grid reliability and avoid emergencies. All overhead lines are available with special surface treatment to reduce losses, corrosion, noise and visibility.

PROJECT MANAGEMENT and INSTALLATION
Highly Qualified and Available Worldwide

Our highly qualified and extensively experienced project managers follow standard processes within project organizations. They provide support including QHSE, installation services, and site tests up to full turnkey turnover. Our site managers and installers, in one of the world’s most highly trained HV installation teams, rapidly install all accessories in highest quality. 24/7 Service contracts for emergency repairs complete the offer.
With energy at the basis of its development, Nexans – worldwide expert in the cable industry – offers an extensive range of cables and cabling solutions. The Group is a global player in markets for energy transmission and distribution, industrial facilities, and construction. Nexans addresses an extensive series of market segments: including energy networks (e.g., wind turbines and photovoltaic systems), telecom systems, energy resources (oil, gas, mining, etc.), and transportation (shipbuilding, aerospace applications, automotive and automation systems, railways, etc.). Nexans is an industrial company that takes its responsibility seriously and that regards sustainable development as integral to its global and operational strategy. Continuous innovation in products, solutions, and services; ongoing employee development and commitment; customer orientation; and the introduction of safe industrial processes with limited environmental impact – these are among the key initiatives that place Nexans in a leading position for a sustainable future.

With industrial presence in 40 countries and commercial activities worldwide, Nexans employs 26,000 staff and achieved sales in 2016 of 5.8 billion Euros. Nexans is listed on the NYSE and Euronext Paris (Compartment A).

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Nexans brings energy to life