

# Wind Farm Cables



# WIND FARM

# About us

Prysmian is a world leader in the energy and telecommunication cables industry with a strong market position in higher added value market segments.

It is organised in two business sectors – Energy Cables & Systems (submarine and underground cable systems for power transmission and distribution, cabling solutions for residential and infrastructure buildings and cabling systems for signalling, control and power feeding for a wide range of industrial applications) and Telecom Cables & Systems (optical fibres, optical cables and copper cables for voice, video and data transmission). The Prysmian Group has a global presence in 34 countries with 54 plants, 7 international R&D Centers and more than 12,000 employees.

Specialising in the development of bespoke products and systems, Prysmian's main competitive strengths include: focus on research and development, ability to innovate in terms of both products and processes, and the use of advanced proprietary technologies.



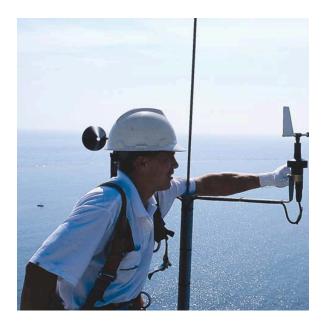
Prysmian's TECHNERGY integrated cabling solutions<sup>™</sup> is one of the world's most comprehensive and technologically advanced answers to industry, infrastructure, contractors and OEM's specific requirements.

TECHNERGY integrated cabling solutions<sup>™</sup> are designed and structured into twelve different product lines. Each of these offer tailored designs and added value solutions to the most diverse functional and environmental requirements in the following fields:

> Trains
> Cranes & Mobile Equipments
> Marine
> Electro-Mechanical
> Oil & Gas
> Data & Communication
> Plant & Petrochem
> Transportation Infrastuctures
> Mining & Tunnelling
> Building & Civil Engineering
> Defence
> Power Plants

To find out more about the TECHNERGY integrated cabling solutions<sup>™</sup>, Prysmian Cables and Systems invites you to visit the web site: www.prysmian.com







## **GENERATING CLEAN POWER ON LAND AND SEA**





Among the renewable energy sources, wind power generation is increasingly significant for its reliability. From the Poles to the Equator, windmills are installed in sites where the wind blows constantly. In most cases, the environment and climate are extreme and highly variable. This affects the equipment including the cables which transmit the power to the distribution network. Critical factors for cable selection are such as resistance to torsional stresses in the towers, economic solutions for cable installation inland and off-shore and – for the newly emerging "off shore wind parks" – their ability to withstand marine environments. Technergy™ Wind Farm Cables comprise a complete range of products that provide: High reliability – Mechanical resistance – Thermal resistance – Chemical resistance.

This performance is guaranteed by special rubber compounds that ensure high resistance and extreme flexibility. Technergy™ Wind Farm Cables include medium voltage and low voltage power, instrumentation and control, multifunction cables. Each is specifically designed to meet the unique conditions of the individual plant and installation area.

# Benefits

### > Technical competence

Prysmian's product line of **Technergy™ Wind Farm** Cables results from the experiences of a long-term cooperation with the applicants as well as the consistent and successful realization of Customer demands.

Prysmian has highly skilled human resources able to provide a proactive solution to problems and meet the individual Customer needs for all cable applications at site.

## > Product innovation

The **TECWIND** cables are especially designed for free suspension inside the towers by offering a high mechanical resistance to torsional stresses. This translates into a higher cable/system reliability and longer life time. The cables are suitable for both high and low ambient temperatures, thanks to special compound for mulations.

# Complete product range: power transmission On Shore & Off Shore

Prysmian's **Technergy™ Wind Farm** Cables cover all kind of:

**TECWIND** rubber-based low voltage and medium voltage cable for installation inside the towers and for nacelle wiring.

**XLPE**-insulated medium voltage cables for power transmission between the towers and to the grid.

#### > Customized design

Prysmian also offers fully customised solutions for special purposes and provides all the required technical support for our customers at every phase of their projects, both on and off-shore.

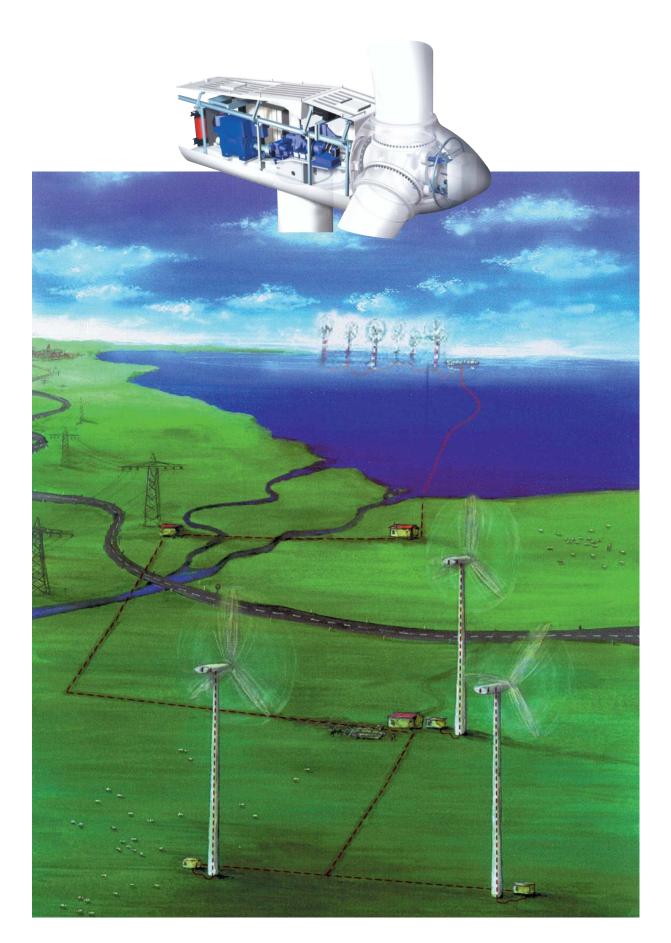
## > Environmental friendly characteristics

Since the environmental awareness becomes more and more important also cables have to fulfil special requirements. For that reason Prysmian developed special compounds for insulation and sheathing which are both halogen free, low smoke and cold resistant. In case of fire no harmful substances for both human beings and electronic equipment are released.

## > Customer care and product availability

Prysmian international network of technically skilled sales offices, centrally coordinated, ensures our Customers of local and easy-to-reach sales and technical contact points. Full project documentation and technical consulting is supplied to all of our customers as part of our sales support program. **Technergy™ Wind Farm** cables are available and deliverable to your premises in a very short time.







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Prysmian has a built in multi-step quality assurance program, covering the production process from cable design and raw material purchasing, to final inspection and testing documentation.

The quality system of Prysmian has been assessed and approved and is audited regularly by Lloyd's Register of Quality Assurance to the ISO 9001 and ISO 14001 Quality System Standards.

The ISO 14001 is the environment quality standard.







# Service and accessories

Prysmian offers pre-terminated factory-fitted low voltage as well as medium voltage **TECWIND cables**.

This specific service is accomplished by customised pre-cutting and provides easier and faster installation inside the towers.











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