THE SAPEI PROJECT

The SA.PE.I. connection (Sardinia – Italian Peninsula) represents an international technological milestone in the sector of submarine energy transmission systems. It is an EHV DC connection (500 kV) with bipolar configuration that is formed by two submarine cables each over 400 km in length. In addition to being the longest electricity line ever built in Italy (second in the world after the connection between the Netherlands and Norway) it is also the longest interconnection ever built by only one supplier (and the second longest one in absolute terms). The SA.PE.I. project boasts other two world records in terms of power transmitted (1000 MW) and of cable laying depth reached (over 1600 meters). Particular attention was devoted to the naturalistic and environmental aspects based on studies and surveys on the project's impact on the "Cetacean Sanctuary" marine park; furthermore, studies conducted by the Tethys Research Institute, demonstrated how cables do not generate negative interferences on marine mammals.

THE CABLE SYSTEM BUILT BY PRYSMIAN: ITALIAN TECHNOLOGY UNIQUE IN THE WORLD

The SA.PE.I. connection represents an important example of competitiveness and innovation in the Italian industry. The cable system which is unique in the world for its technological characteristics, was entirely designed and built in our country by the Italian company Prysmian, a world leader in the sector.
Specifically, the submarine cable was produced in Arco Felice, near Pozzuoli, in the plant representing a true technological outstanding facility where projects among the most advanced ones in the field of energy transmission were created, which now include the SA.PE.I.

The Project was started by Prysmian in 2006 and included designing, supplying and building a "turnkey" system formed by engineering, producing and placing two EHV DC bipolar lines made partly by a land cable – for a total of over 30 km of cable – and partly by a submarine cable - for a total of over 800 km of cable - with a transmission capacity of 1000 MW at 500 kV DC between the power station in Fiume Santo (SS) and the power station in Latina.

The submarine and land cables forming the SA.PE.I. connection underwent a strict and careful qualification process through cable laying tests at sea and mechanical and electrical inspections. The submarine cable laying activity was implemented using the cable-laying ship Giulio Verne, the largest in the world for its operating capacity (with a storage capacity up to 7,000 tons of cable and a bollard pull for cable laying at sea of 55 tons/meter).

PRYSMIAN, THE WORLD LEADER IN THE SECTOR

Prysmian is the world leader in the sector of cables and high tech energy and telecommunications systems. Listed in the Milan Stock Exchange in the Blue Chip segment, in 2010, the Group's turnover was equal to over 4.5 billion euros. Through its two businesses, Cables and Energy Systems (cables for energy transmission and distribution both on land and underwater, for industrial applications and for electricity distribution to residential and commercial buildings) and Telecom Cables and Systems (Optical fibers and cables made of copper for videos, data and voice transmission), the Prysmian Group boasts a global presence with subsidiaries in 39 countries, 55 plants in 24 countries, 7 Research & Development Centers in Europe, the US and South America and over 12,000 employees. In Italy, the Group has nearly 2,000 employees in 9 plants that represent world outstanding facilities in the sector particularly for submarine cables and optical fibers.

THE HISTORY OF SUBMARINE ENERGY CABLES: AN ALL ITALIAN RECORD

The history of cables goes hand in hand with the development of the company that today is named Prysmian and was first established as Pirelli Cavi. In 1879, the company produced its first insulated cables, in 1887 it built its first submarine connections using telegraphic cables between Naples and Palermo, in 1906 it built an underwater connection using an electricity cable through Lake Garda and in 1929 between Nisida and Pozzuoli, up to the present, with major cutting-edge projects implemented throughout the world such as the Basslink in Australia, the Neptune and Trans Bay Cable in the United States, the GCCIA and the Doha Bay Crossing in the Middle East and the Spain-Morocco, the Romulo, Messina-Reggio Calabria and major offshore wind farms in Europe.