

ENERGY WHICH BRINGS US TOGETHER THE ELECTRICITY BRIDGE UNDER THE STRAIT OF MESSINA

The “Sorgente-Rizziconi”¹ power line goes live

- *With a total length of 105 km, 38 km of which is undersea, and a transfer capacity of up to 1,100 MW of electricity, today's project heralds a true milestone in energy infrastructure*
- *Over € 700 million have been invested in this strategic project, representing a necessity for Italy's electricity system and saving around € 600 million each year*
- *A reduction of 700,000 tonnes of CO₂ emissions each year, 114 km of old power lines dismantled and over 200 hectares benefiting from a lower environmental impact*
- *The project “Sorgente-Rizziconi” is co-financed by the European Union's European Energy Programme for Recovery programme (EEPR)*

Favazzina (Reggio Calabria), 28 May 2016 - Today, in the presence of the Italian Prime Minister Matteo Renzi, Regional Minister for Calabria Gerardo Mario Oliverio, the Chairman of AEEGSI (the Italian Regulatory Authority for Electricity, Gas and Water) Guido Bortoni and Terna CEO Matteo Del Fante, Terna officially opened the “Sorgente-Rizziconi”, a record-breaking power line which will unite Sicily to Calabria, the Italian mainland and the rest of Europe through Italy's high voltage electricity system.

With the introduction of the “Sorgente-Rizziconi” line, Terna has eliminated the final “bottleneck” at zone level, creating the conditions required to remove the current price differential which exists between Sicily and the rest of the country: when it comes to electricity, Italy is now completely connected thanks to a high voltage power line which runs uninterrupted from Sicily to the Aosta Valley. The project will also optimise the use of over 700 MW of renewable energy produced on the island of Sicily, largely from wind and solar power.

The project is an all-Italian success, covering a total of 105 km and using the longest 380 kV alternating current undersea power line in the world, with 38 km of cable laid on the sea floor at a maximum depth of 376 metres. This will increase the energy transfer capacity to up to 1,100 MW. At Sorgente and Villafranca on the Sicilian side of the link, as well as in Calabria, Scilla and Rizziconi, four technologically advanced electricity substations will be in operation, enabling the power to be transferred safely. The **insulated substation** at the Scilla power plant is the **largest of its kind in Europe**. Modern single-pole pylons with reduced environmental impact will support the power line in the overhead areas of the two regions, extending for a total length of 60 km.

The engineering solutions applied to the project are also noteworthy: to further reduce the impact on the environment, the cable in Calabria was installed using the **deepest vertical well** (descending for nearly 300 metres inside the mountain) and the **longest horizontal tunnel** (2.8 km) ever constructed for high voltage cables. On the Calabria side, the corridor formed by the

tunnel and the well enables the submarine power cables to lead directly to the Scilla electricity substation at over 600 metres above sea level without ever breaking the surface, removing any visual or external impact to the beaches or the nearby protected nature reserve.

The project affects two provinces (Messina and Reggio Calabria) and 21 municipalities (Taurianova, Roccavaldina, Torregrotta, Rizziconi, Scilla, Valdina, Oppido Mamertina, Sinopoli, Cosoleto, Saponara, Spadafora, Varapodio, Pace del Mela, Rometta, San Pier Niceto, Monforte San Giorgio, San Filippo del Mela, Sant'Eufemia d'Aspromonte, Condrò, Venetico and Villafranca Tirrena).

The new infrastructure represents a strategic step forward not only for Calabria and Sicily but for Italy in general, enabling a more efficient use of the power stations in the south of the country and increasing competition, in turn leading to lower energy prices for Italian businesses and citizens. Starting from today, the new power line is estimated to save around € 600 million each year, added to the over € 7 billion of savings generated since 2005 thanks to the improvements Terna has brought to the Italian electricity system through investments totalling around € 10 billion. These investments have led to a significant reduction in network congestion, resulting in increased integration of the country's electricity infrastructure and facilitating the flow of energy in Italy and abroad. Consequently it has already been possible to see some alignment in prices between the main zones of the Italian electricity market, and the Single National Price has fallen considerably. From now on, thanks to this efficient power link Sicily will also be suitably connected to the rest of the country.

Over the last five years Terna, the leading independent grid operator in Europe and one of the largest in the world, has invested over € 700 million in the project, representing one of the most significant investments in the Group's history. The project involved 150 technologically advanced and highly skilled companies, including suppliers and construction firms, 90% of which were based in Italy. Over the period, more than 2,000 employees worked on the project.

From an environmental standpoint, the new infrastructure will enable Italy to reduce atmospheric emissions of CO₂ by around 700,000 tonnes each year, the equivalent of the annual emissions of over 700,000 cars. Thanks to the removal of 114 km of overhead power lines and 400 obsolete pylons, 2,500 tonnes of steel, aluminium, glass and concrete can be recycled, the equivalent weight of 10 Statues of Liberty. In addition, thanks to the use of innovative single-pole pylons for the overhead lines on the Sicily and Calabria sides which require 10 times less surface area than traditional pylons, 228 hectares, the equivalent of around 250 football fields, have been freed.

In Sicily and Calabria, Terna plans to invest a total of over € 2 billion in order to modernise and optimise the electricity grid in one strategic area, half of which is still to come to fruition.

"Today I am particularly proud to be standing here with you and our Prime Minister to mark the completion of one of the most innovative, unique and technologically advanced infrastructure projects we have ever embarked on, one which involved the use of extraordinary engineering solutions produced in the tradition of high quality Italian manufacture," declared Terna CEO Matteo Del Fante. *"In uniting Sicily's electricity network to the rest of the continent, this record-breaking project will enable us to save around € 600 million each year and to reduce annual atmospheric emissions of CO₂ by around 700,000 tonnes. The new electricity link under the Strait of Messina is also of decisive significance in terms of the strategic location of our country, representing the*

preferred route for future connections between the North African grids and those of Central Europe. My thanks go to all the companies, associations and the superb team at Terna whose constant and dedicated commitment to the project enabled us to achieve a successful result both for the company and for the Italy”.