

The Hernani–Argia electrical interconnection with France is upgraded using cutting-edge technology

The project increases the line's transmission capacity from 1,600 MVA (megavolt-ampere) to 2,100 MVA.

The upgrade involved replacing the conductors and raising the height of the towers —work that, on the Spanish side, was carried out using the pioneering Amp-jack technique, employed for the first time in Europe.

The work was completed over 25 km of line on each side of the border in a two-month period.

Hernani, 12 November 2025

Red Eléctrica, Redeia's subsidiary responsible for electricity transmission and system operation in Spain, and its French counterpart, RTE, have completed the modernisation of the Hernani–Argia interconnection line. This initiative boosted the line's transmission capacity from 1,600 MVA (megavolt-amperes) to 2,100 MVA without the need to build new infrastructure.

To achieve this, Red Eléctrica deployed state-of-the-art technology on the Spanish section of the line: the Amp-jack technique. This groundbreaking method —used in Europe for the first time— makes it possible to perform this type of work without large cranes, which had until now been required for such upgrades.

Specialised vehicles transport the components directly to the tower where they will be installed, while technical teams assemble the pieces on-site to increase the tower's height. This process significantly reduces environmental impact by avoiding the use of heavy machinery. Therefore, it eliminates the need for earthworks and roadway levelling that would normally be required to allow equipment access to construction areas.

With this technological milestone, Red Eléctrica reinforces its commitment to technological innovation, energy efficiency and sustainability. Simultaneously, the company strengthens both the security and resilience of Spain's electrical system and its electricity exchange with France.

This project is included in the current Electricity Transmission Grid Planning.

Modernisation of the Hernani–Argia interconnection

This is a strategic asset for electricity transmission between Spain and France. In service since 1971, the line had already undergone improvements in the early 2000s. Now, working in close coordination,

Red Eléctrica and RTE have completed two new upgrades spanning roughly 25 km of line on each side of the border.

On the Spanish side, the first upgrade involved replacing the conductors (cables) with next-generation models capable of transmitting more energy due to their lower thermal expansion —designed specifically to withstand high temperatures. The second upgrade involved raising the height of three towers.

In France, installation of the final kilometres of electrical cable on the French-Spanish border was the result of close coordination between teams from Red Eléctrica and RTE. Their collaborative approach significantly reduced the environmental impact of the work, especially on certain protected plant species. Teams from Red Eléctrica and RTE, together with construction partners, pooled their technical expertise to identify and address the ecological challenges on both sides of the border and to agree on an efficient, environmentally responsible working method.