



Red Eléctrica strengthens the power transmission grid in Jaén by upgrading the Guadame-Olivares line

This initiative enables the integration of renewable energy in the province of Jaén, driving its ecological transition

The upgrade enhances supply security and facilitates the development of new industrial and business projects

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Red Eléctrica, Redeia's subsidiary responsible for operating and managing the electrical transmission system in Spain, has completed the upgrade of the power transmission line connecting the Guadame (Marmolejo) and Olivares (Jaén capital) sub-stations in the province of Jaén. By increasing the line's transmission capacity, this initiative strengthens supply security while fostering the development of new renewable energy projects and stimulating industrial and business growth in the region.

The 220 kV Guadame-Olivares line runs through the towns of Jaén, Fuerte del Rey, Marmolejo, Torredelcampo, Lahiguera, and Andújar. The upgrade involved raising the height of four transmission support towers to ensure that, with the increased capacity—from 342 MVA to 447 MVA—the line maintains the required ground clearance under its new operating conditions. Furthermore, this improvement has no environmental impact.

The initiative is part of the current Electricity Plan, approved by the Council of Ministers in March 2022 and has recently received the necessary operating authorisation from the Regional Government of Andalusia.

Guadame: a strategic sub-station for central Andalusia

These efforts complement the investments made by Red Eléctrica in 2024 to modernise the Guadame sub-station in Marmolejo. Specifically, the company has invested over €9 million in upgrading the 400 kV and 220 kV switchyards, replacing key infrastructure components with state-of-the-art equipment to enhance grid reliability and extend its service life.

The Guadame sub-station in Marmolejo is currently considered the main transmission grid hub in central Andalusia. It consists of two switchyards operating at 400 kV and 220 kV. The 220 kV switchyard connects to the Olivares and Andújar sub-stations, as well as to Puertollano (Ciudad Real) and Lancha (Córdoba), supplying electricity to central Andalusia and southern Castilla-La Mancha.