



**Boosting rail networks and the integration of renewables in Extremadura**

## **The Network Development Plan with a 2026 horizon has been approved to drive a greener future for Spain**

- The Network Development Plan 2021-2026 is a key instrument for developing the electricity infrastructure needed to continue guaranteeing the security of supply in addition to promoting the energy transition process nationwide to ensure that renewable energy will account for 67% of the national electricity generation mix by 2026.
- The drafting of the Plan has followed a rigorous Strategic Environmental Assessment procedure to ensure it is sustainable and environmentally friendly.
- The projects included in the Plan will contribute to achieving significant efficiencies and savings for the system as a whole, more than 1.6 billion euros per year. In addition, the investments will help boost Spain's recovery from the crisis.
- The 2021-2026 Plan for Extremadura will give way to the construction of new rail networks that will connect the region with the central regions of the peninsula, in addition to facilitating the integration of renewable energy in the region as well as strengthening the electricity supply in Cáceres and promoting industrial development in Badajoz.

Merida, 22 March 2022

The Network Development Plan 2021-2026, which is binding for Red Eléctrica, has been given the green light after having been approved today by the Spanish Government following its presentation in the Spanish Congress of Deputies. With an investment of 6,964 million euros, this new Plan is a strategic instrument through which the necessary infrastructure will be developed so that Spain may continue to enjoy an electricity supply with high levels of quality and will allow further progress to be made in the decarbonisation of its energy model and in its fight against climate change.

In this regard, the actions included within the Plan will size and prepare the transmission grid in the coming years to be able to connect and integrate a higher share of renewable energy generation in line with the pace set by Spain's National Energy and Climate Plan (NECP) and make it available to consumers. Thanks to the development of this infrastructure, it is estimated that in 2026 renewable energy will reach a share of 67% in the national electricity generation mix and will enable CO<sub>2</sub> eq emissions to be reduced by 66% compared to those recorded in 2019 (the year before the pandemic), provided that the NECP forecasts and the full implementation of this Plan are met. Similarly, the projects included in the Plan, will contribute to achieving significant efficiencies and savings for the system as a whole, more than 1.6 billion euros per year. In addition, the investments will help boost Spain's recovery from the COVID-19 crisis.

The plan process followed a rigorous Strategic Environmental Assessment procedure to ensure it is sustainable and environmentally friendly. It should be noted that the Plan took into account the environmental and territorial conditioning factors and has prioritised these aspects in the final design. Furthermore, the Network Development Plan 2021-2026 includes making greater use of the existing transmission grid, thus avoiding those areas that are



most environmentally sensitive and reducing those actions that may have an impact on the territory. In fact, only 13% of all renewable generation expected to be connected by 2026 will require new transmission substations.

The four most relevant vectors of the TNetwork Development Plan for Extremadura are focused on the power supply for the new rail networks that will connect the region with the central area of the peninsula, the integration of renewable energy into the system, the strengthening of the electricity distribution network to guarantee electricity supply throughout the territory - especially in Cáceres - and provide support for high-impact industrial development in the region, specifically in Badajoz.

#### **Powering the rail networks to boost the economy in Extremadura**

The new Plan will enable powering of the two high-speed rail networks considered essential for the economy of Extremadura: on the one hand, the rail network that will connect the region with Madrid and Lisbon (through Cáceres and Badajoz) and, on the other hand, the one that will connect Mérida with Puertollano (Ciudad Real) which will allow the connection of the main cities of Extremadura with Castilla-La Mancha.

In order to power the first of the rail network lines (Toledo-Navalmoral-Cáceres-Badajoz), the Plan includes the enlargement of the 400 kV Arañuelo, San Serván and Sagrajas substations by adding new substation feeder bays. In the case of the new Sagrajas substation, this will be done once it has been built and commissioned.

In the case of the Puertollano-Mérida axis, the Plan includes the construction of two new 400 kilovolt (kV) substations in the province of Badajoz (La Serena and Alange) and also additional actions to enhance other substations in Castilla-La Mancha.

These actions are essential because they will enable the electrification of rail transport between Extremadura (Merida) and Castilla-La Mancha (Puertollano) and because they will provide the power transmission and rail network backbone in the territory, thus improving the competitiveness of the region's productive sectors and promoting the decarbonisation of its economy, in line with the targets set out in Spain's National Energy and Climate Plan (NECP).

#### **Strengthening the Andalusia-Extremadura-Madrid renewable energy corridor**

The new national electrical energy plan includes the Andalusia-Extremadura-Madrid renewable energy corridor project, which will facilitate the evacuation of the vast solar resources that the region of Extremadura offers. Four new 400 kV substations are planned: Fuente de Cantos, Fuente del Maestre, Llerena and Pinosfranqueado. In addition to this infrastructure, the 220 kV and 400 kV lines between Andalusia, Extremadura and Madrid will be upgraded and their power capacity increased.

This energy corridor will contribute to reducing the current and future limitations of the transmission grid, thus facilitating better use of the high renewable potential that is available in areas in which this generation capacity has a low environmental impact in the region. In fact, in the upcoming future, it will allow the additional integration of up to 5,200 GWh of new green generation per year, which would represent an increase of 25% in photovoltaic energy production compared to that registered on the Spanish mainland in 2021. This would allow a reduction of CO<sub>2</sub> emission of around 770,000 tonnes per year.

#### **Supporting the electricity distribution grid and boosting industrial development**

This Transmission Grid Development Plan also includes actions that will support and strengthen the electricity distribution network in numerous parts of Extremadura and, in particular, increase the security of electricity supply in the area around Cáceres. Of particular note in this respect is the construction of several new lines: the 220kV Los Arenales-Caceres line, the 220kV Los Arenales-Trujillo line and 220kV Los Arenales-Jose Maria Oriol line.

On the other hand, the execution of this Plan will promote the economic, industrial and social development of Extremadura and, specifically, of Badajoz. The Plan includes the construction of two new 400 kV substations, the aforementioned one at Sagrajas and the one at Río Caya, as well as the new double-circuit 400 kV lines that will link



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the San Serván, Sagrajas and Río Caya substations. This infrastructure will make it possible to connect and supply large industrial consumers in the Río Caya area who will require large volumes of energy to carry out their production processes. These facilities will be strategic for the consolidation of the Southwest Iberian Logistics Platform in Badajoz.

#### **A Plan conceived by all for society as a whole**

This Network Development Plan is the result of the responsible and collective efforts of all stakeholders. The public administrations and the different agents of civil society have participated in its preparation, working together with a common goal: to build, together, a useful and valuable transmission grid for everyone. For the first time, the consultation process has been open to all citizens, companies and public administrations, whose high level of participation has demonstrated the enormous interest of society as a whole in the energy transition process.

- **More information at** <https://www.planificacionelectrica.es/>