RED ELÉCTRICA DE ESPAÑA

Grupo Red Eléctrica

Press release

Red Eléctrica modernises its telecommunications network to progress with the energy transition through its digital transformation

- This course of action responds to the Company's commitment to technological innovation in order to advance in its digitalisation, streamline its processes and promote a smarter and more efficient management of its assets
- The Company will install a telecommunications network comprised of more than 800 nodes, which affects almost the entire transmission grid of Red Eléctrica, which consist of more than 700 substations and 45,000 kilometres of line circuit.

Madrid, 6 July 2021

Red Eléctrica de España (REE), operator and transmission agent of the national electricity system, will modernise the infrastructure of its current telecommunications network, thus taking an important step forward in its digital transformation. This course of action responds to the Company's commitment to technological innovation in order to advance in its digitalisation, streamline its processes and promote a smarter and more efficient management of its assets. This modernisation project improve the communication of the protection, control and measurement signals of the electricity grid, allowing the Company to be fully aware of any eventualities that may arise in its infrastructure (lines and substations) in real time, thus enabling the rapid restoration and correct operation of the electricity system.

This modernisation project, carried out jointly with Nokia, will provide a new telecommunications network comprised of more than 800 interconnected nodes, which in turn will have an impact on almost the entire transmission grid that Red Eléctrica has deployed throughout Spain, which consist of more than 700 substations and almost 45,000 kilometres of line circuit.

The new telecommunications network will be a lever for the construction of new substations based on IEC-61850 technology, as well as a tool for the implementation of new exploitation projects, as well as in the field of R&D.

Manuel López Cormenzana, Manager of the Facilities Maintenance area at Red Eléctrica, explains that "we are a key player in the energy transition and the challenges we face are clear. Therefore, we must be able to anticipate and have the best tools with which to carry out our mission with the highest possible quality, safety and efficiency. In this regard, modernising our telecommunications network is vital in order to move forward with the digitalisation of our processes and to enable the advanced management of transmission assets".

The renovation of all telecommunications infrastructure will improve the quality and reliability of the information transmitted to the control centres for the remote management of the control function and the protection systems of the electricity transmission facilities, which are essential to transport the energy from where it is generated to the distribution substations to meet the energy needs of the entire country.

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In addition to being able to provide information required to guarantee the electricity supply and being compatible with all the devices used by Red Eléctrica to fulfil this mission, the new telecommunications network will facilitate digitalisation while reducing unnecessary intermediary elements in end-to-end communication and, therefore, will provide higher levels of reliability and availability while reducing environmental impact and action time.

The new technology implemented by Nokia, based on IP-MPLS, will also bring greater flexibility in telecommunication services and drive a smarter use of the different elements of the fibre optic network. As a result, the network will enable the provision of services with greater agility, accuracy and availability to meet the needs of the digitalisation initiatives required to meet the challenges of the green transition in the coming years.