

## Technological innovation pilot project

Elewit and Red Eléctrica are developing a project to optimise the remote management of substations through AI, IoT and data analytics

The two Redeia companies are working on this initiative that combines different technologies to bolster the efficiency of maintenance processes and improve the availability of substation assets.

Through this innovation pilot project -ASUMO- critical variables and images are captured in real-time, which, in turn, enables the remote management and maintenance of facilities to be optimised.

Madrid, 14 September 2023

Elewit and Red Eléctrica, companies belonging to Redeia, are jointly developing a technological innovation pilot project called ASUMO (Advanced Substation Monitoring), that takes a step forward in the digitalisation of electricity substations, mainly regarding the procedures and activities related to the areas of maintenance, engineering and construction.

Specifically, this pilot project integrates systems used to monitor assets that are part of electricity transmission grid substations; such systems are based on artificial intelligence (AI), the internet of things (IoT), data analytics and remote management. This project is currently being developed in the 220 and 400 kV facilities of the Fuencarral electricity substation in Madrid and it is expected that the initial results be available in 2024.

ASUMO enhances data collection of critical variables associated with the assets being monitored through advanced data analysis tools and artificial intelligence in order to know in real-time the status and condition of not only the assets but also the electricity facility as a whole. In this way, it is possible to optimise the availability of the grid and reduce the response time to possible eventualities.

This innovative initiative also improves the remote operation and maintenance of electricity grid assets through the visualisation and processing of images and the creation of a digital twin. Thanks to these elements, data analytics is improved and automated, and recommendations on preventive or corrective maintenance actions are obtained, therefore increasing the efficiency of work carried out in the field and the physical safety of the professionals who perform such tasks.

Silvia Bruno, Chief Innovation & Technology Officer at Elewit, explains: “At Elewit we are always striving to incorporate the most innovative solutions to transform our electricity assets. ASUMO, a project that has involved two Redeia companies, allows us to advance in the digitalisation and automation of electricity grids. It is a solution that enhances the safety of our people and our ability to act in real-time to ensure the correct operation of the grid.”

For his part, Manuel López Cormenzana, Manager of the Facilities Maintenance Area at Red Eléctrica, emphasises that “ASUMO is a set of highly technological solutions that are designed to increase the efficiency of maintenance activities and the operation of the transmission grid, and which make it possible to adapt the grid system to the flexibility and security demands required to achieve the green transition. It is a project that is fully aligned with the innovation culture that has always characterised Red Eléctrica.”