

E-DISTRIBUȚIE HAS IMPLEMENTED AN ADVANCED GRID MAPPING SOLUTION FOR SAFER NETWORK OPERATION AND INCREASED QUALITY OF ELECTRICITY DISTRIBUTION

- *E-Distribuție's grid mapping solution is called Global Repository & 3D Modelling and creates a digital image that mirrors the original network in the field*
- *The main benefits for consumers are increased quality of service for the electricity distribution and fewer power outages*
- *The Global Repository & 3D Modelling solution is part of Enel's extended Grid Blue Sky project, whereby electricity distribution companies are adopting a new operating model for integrated and efficient network management based on platformization*

Bucharest, 27 December 2022 - E-Distribuție companies, the electricity distribution operators of the Enel Group, have implemented the Global Repository & 3D Modelling solution, through which the electricity grid operated in Bucharest and the 10 counties of the country is digitally recreated, mirroring the characteristics of the original network. The main purpose is to facilitate access to the grid, especially in hard-to-reach areas, to perform virtual inspections and thus correct any anomalies before they lead to outages.

The Global Repository & 3D Modelling solution allows data to be collected in the form of point clouds and images during helicopter, drone, terrestrial laser scanner or mobile mapping inspections, and then visualised in an integrated way through a series of digital interfaces: the Visualisation Module and the Single Mapping Panel. The latter is a single access point for all network information, for all voltage levels and all processes.

Main functionalities of the solution:

- network visualisation and budgeting of electricity network extension works based on the network mapping
- visualisation of topological and alphanumeric information of the electrical network
- visualisation and geographical search of the information collected: point cloud, photographs, critical points

In addition to the benefits for consumers - increased quality of the electricity distribution process and fewer power outages - Global Repository & 3D Modelling also has multiple advantages for E-Distribuție's internal operating model: integration of design and budgeting activities based on grid mapping; mapping of consumption locations and integration with alphanumeric data from the commercial database; definition of mapping models to meet the requirements of administrative authorities; streamlining of maintenance, design and asset management activities.

"Global Repository & 3D Modelling is one of the many advanced digital solutions that are part of Grid Blue Sky, an extended Enel project aimed at facilitating the implementation of a new operating model for integrated and efficient grid management based on a platform organization. It is a unique solution in Romania, which allows us to see down to the smallest detail all the components of the network, including distances between elements or interference with vegetation, which gives us a tremendous advantage in managing the network and preventing power outages. The digital network is no longer just a wish, it has taken shape and we are accelerating its development with the help of the complex digital solutions we are

also implementing in Romania and for which we are training our colleagues," said E-Distribuție's general manager, Monica Hodor.

Other functionalities of this solution are to be developed. The process of collecting point clouds and images during helicopter inspections can be watched [here](#).

Global Repository & 3D Modelling adds to other digital functionalities and services launched over the last two years by E-Distribuție companies to always be at the customers' service. [Virtual Visit](#), an innovative service where we visit customers online to determine the most suitable connection solutions for their homes, and [Digital Audiences](#) are some of them.

E-Distribuție Banat, E-Distribuție Dobrogea and E-Distribuție Muntenia are Enel Group companies in Romania that are active in electricity distribution. Every year, the E-Distribuție companies distribute more than 15 TWh of electricity through more than 133,000 km of grids - underground and overhead high, medium and low voltage power lines, via 286 transformer stations and 24,315 transformer substations.