

Rețele Electrice România inaugurates the Mamaia substation, following an investment of approximately 43 million lei

Bucharest – Rețele Electrice România, part of the PPC group of companies in Romania, has completed the construction of a new substation in the Mamaia resort to improve energy distribution in the area, mainly to meet the increased consumption needs during the tourist season. The investment, totaling approximately 43 million lei, was fully financed by the company's own resources, as a part of the company's strategy to develop the electricity distribution network based on the principles of quality and resilience.

The new substation will serve, for now, approximately 7.800 customers in the northern part of the Black Sea coast, ensuring a reliable power supply tailored to current consumption demands. At the same time, by placing the new transformer station between the Tăbăcărie Station in the Delfinariu area of Constanța and the Năvodari Station, it maximizes the efficiency and reliability of the electrical distribution network.

It was a complex project, involving constant land preparation in an area that was previously swampy. The high-voltage connection to the station was done through an underground cable line that crosses beneath the Midia-Năvodari Canal. This operation had brought major technical challenges due to the geography and composition of the terrain, requiring complex horizontal directional drilling under the canal bed.

"We are continuing our progress of modernizing and expanding the electrical distribution networks, with a focus on resilience, flexibility, and digitalization, to support the energy transition – from accelerated electrification to the decarbonization of consumption. The Mamaia substation represents an important step in this direction, contributing to increasing the energy supply safety, improving the service quality, and enhancing network resilience for the benefit of our customers and local communities. Furthermore, through this investment, we're also supporting the economic development of the area by providing a significantly improved distribution service, optimized to attract new investments and support existing businesses," stated Mihai Pește, General Director of Rețele Electrice România.

The Mamaia 110/20kV substation is an indoor-type facility, with all energy equipment located in the building's premises, having an installed capacity of 50 MVA and being equipped with two 100/20kV transformers of 25 MVA each. The construction features an architectural design adapted to the local urban landscape, integrating into the surrounding environment.

The electrical connections to the high and medium voltage networks were made entirely through underground cables, this being essential from the installation resilience standpoint, but also from a sustainability and environmental impact perspective. The equipment used is encapsulated and compact, providing high reliability and optimal use of space within the station.

The station will be powered by two underground electrical lines of 110 kV, as of now, the line Năvodari Station - Mamaia Substation has been completed, while the second line, Mamaia Station- Tăbăcărie Station, is planned for a future stage. The medium voltage of the electrical power distribution is carried out through 8

lines, the medium voltage bar in the station is being made with 15 compact cells of medium-voltage cells, being at the same time dimensioned for a possible amplification of station power depending on future consumption needs.

Rețele Electrice România operates electricity networks with a total length of approximately 134.000 kilometers across three important regions of the country: Southern Muntenia (including Bucharest), Banat and Dobrogea, covering one-third of the local distribution market, and developing a program of investments aimed at improving the service quality, the network safety and performance, and local implementing of the PPC Group's environmental standards. The electricity networks operated by Rețele Electrice România include 289 substations and more than 25.000 secondary substations.