ELECTRICA MUNTENIA NORD DISTRIBUTION NETWORK OPERATOR ANALYSIS AND OPTIMIZATION

Goal of the project

Distribution network technical losses evaluation for Electrica Muntenia Nord Distribution System Operator has been tackled. Analytical and power flow computing based methods have been applied for different voltage levels and operating conditions. Renewable generation influence has been discussed.

Short description of the project

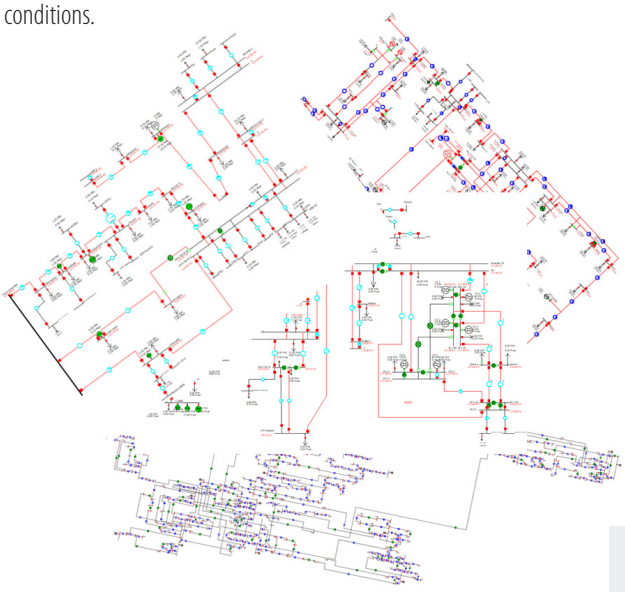
Technical losses computing methodology is proposed.

Implementation period

2018

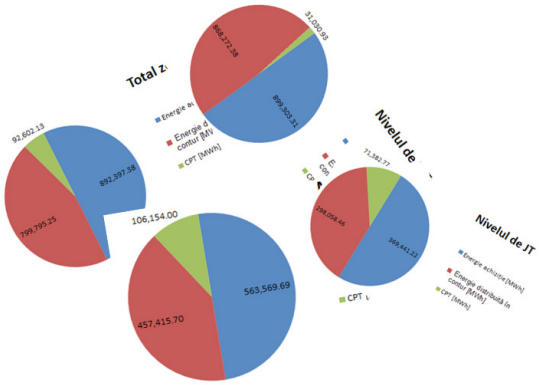
Main activities

- The study was conducted for Electrica Muntenia Nord Distribution System Operator. In was focused on different voltage levels, distribution branches and equipment type.
- Quantitative and qualitative on-field measurements have been provided and discussed, followed by the technical losses evaluation. Different scenarios for the distribution network operator have been taken into consideration highlighting the optimal operating conditions.



Results

- algorithm developed for technical losses evaluation in case of different voltage levels;
- electrical distribution network simulation model at 110 kV and 20 kV voltage levels, analyses, recommendations;
- technical losses' reduction methods.



Applicability and transferability of the results

- The developed methodologies for technical losses evaluation are able to be applied in case of any distribution network operator. Also, based on the achieved experience, other (or similar) technical losses reduction methods could be tackled in case of different distribution operators.

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Research Centre

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