

## **Minimization of node voltage deviations and losses in the power system based on multicriteria optimization.**

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Voltage control and reduction of active losses in power systems are important factors in ensuring the safe operation of the electric power system and its economic indicators. The use of the series compensation helps to increase transmission line capacity. The choice of capacity and the installation location of the series compensation requires conceptualization. In this article, multicriteria optimization is applied to the placement of the series compensation, considering the voltage deviation and losses in the power grid as optimization criteria.

*Key words: optimization of energy systems, multicriteria optimization, series compensation, power loss.*