Methods for transmitted power increasing in transit power systems on the Kola-Karelian transit example.

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The task of making the most complete use of the capacity of existing intersystem power transmission lines is relevant under the constraints of network construction. Ways to increase the throughput of intersystem transits are presented and their effectiveness is justified in this paper. The research methodology consisted in conducting numerical experiments to study non-stationary, emergency modes of operation in specialized software complexes. In the course of the study, an additional criterion for choosing a "dangerous" controlled section was developed and justified. In addition, the calculated functional dependences of the mutual influence of the connected controlled sections corresponding to the configuration and structure of the electrical network circuit have been determined. The determination and justification of the technological effect of the closure of normally open connections was carried out. The results of the study have practical significance in the management of the electric power mode of the power system.

Key words: power lines, electrical network capacity, dangerous controlled area, maximum allowable flows, normally open transits.