Design of decision support system for electrical grid development

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The main stages of decision support for electrical grid development are presented. The generation of alternatives is offered depending on scenario of electrical grid development, taking into assessment of power equipment technical conditions and the future level of load.

The evaluation of alternatives for electrical grid development is proposed to be carried out according to the developed criteria without the participation of an expert. Afterwards they are attributed to a corresponding set of preferred solutions based on the technology of artificial neural networks.

The developed algorithm of the decision support system has been successfully tested on the example of the technical re-equipment of the substation, the obtained results corresponds to the proposals of the investment program for electrical grid development.

Keywords: electrical grid development, decision support systems, neural networks.