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**ЗАХОДИ ТА ТЕХНІЧНІ
ЗАСОБИ ПІДВИЩЕННЯ
ЕФЕКТИВНОСТІ РЕЖИМІВ
РОБОТИ МАГІСТРАЛЬНИХ
ЕЛЕКТРИЧНИХ МЕРЕЖ**

МОНОГРАФІЯ



Technical sciences. **V.V. Kuchansky, D.O. Malakhatka.** MEASURES AND TECHNICAL MEANS OF IMPROVING THE EFFICIENCY OF THE OPERATING MODES OF MAIN ELECTRICAL NETWORKS. / Institute of Electrodynamics of NAS of Ukraine/ – Vinnytsia: GO "European Scientific Platform", 2021. ISBN 9786177991426

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An overview of the problems of operation modes of ultra-high voltage transmission lines has been performed. In the current conditions of operation of main electrical networks, the most acute are the issues of ensuring the required capacity, reducing losses of active power, as well as improving the efficiency of operation of incomplete-dose modes, first, the development of measures to prevent the occurrence and development of abnormal overvoltage in incomplete modes. One of the most effective ways to solve

these problems is a reasonable choice of installing controlled shunt reactors and static compensators of reactive power. Another way is the selection of their customizable parameters, which in turn provides "flexibility" of the transmitting system as a whole and consider within the framework of the concept of flexible ac transmission lines. Next, the idea and developed a detailed step-by-step methodology for choosing the place of installation of controlled shunt reactors and static compensators of reactive power in main electrical networks by establishing a quantitative connection between regime parameters.

The book aims at scientists and specialists studying the modes of operation of main electrical networks with means of controlled compensation of reactive power.