

*Belyaev N. A., Egorov A. E., Korovkin N. V., Chudny V. S.*

### **An Examination of Methods of Capacity Adequacy Analysis.**

A method for calculating the indicators of capacity adequacy of electric power systems of complex structure is proposed. The developed method uses the digital electric power system model for the formation of a computational model of capacity adequacy. The method uses the statistical modeling also. The results of calculating the capacity adequacy for the power network of the East of Russia are presented.

*Key words: power system, capacity adequacy, power shortage, reliability zone.*

*Belyaev Nikolay Alexandrovich*, Engineer of Department Design and Development of Energy Systems of the Scientific and Technical Center of Unified Power System (STC UPS), postgraduate of «Electric systems and networks», St. Petersburg State Polytechnic University.

E-mail: Belyaev.NA@yandex.ru

*Egorov Andrey Evgenevich*, Deputy Head of Department Design and Development of Energy Systems of the Scientific and Technical Center of Unified Power System (STC UPS).

E-mail: egorov\_a@ntcees.ru

*Korovkin Nikolay Vladimirovich*, Dr. Sc., Professor, Researcher of Department Design and Development of Energy Systems of the Scientific and Technical Center of Unified Power System (STC UPS), Head of the «Theoretical Foundations of Electrical», St. Petersburg State Polytechnic University.

E-mail: nikolay.korovkin@gmail.com

*Chudny Vladimir Sergeevich*, PhD. tech., docent, Researcher of Department Design and Development of Energy Systems of the Scientific and Technical Center of Unified Power System (STC UPS), docent of «Electric systems and networks», St. Petersburg State Polytechnic University.

E-mail: chudnyvs@yandex.ru