Models of power systems' optimal development

The purpose of the discipline " Models of power systems' optimal development" is to acquire knowledge in the field of theory of large systems, system analysis, economic and mathematical models and acquaintance with the basics of mathematical methods to solve problems of optimizing the development of power systems. The main attention is paid to the issues of optimizing the structure of generating capacities, optimizing the development of power plants and optimizing the development of electric networks of power systems.

Saving the energy losses in electrical systems

The subject of the discipline is based on acquiring knowledge on the design of technical facilities, the implementation of feasibility studies of engineering solutions; application of modern methods of designing electrical networks of different classes of rated voltages, combining such objects for parallel operation; conducting research and analysis of the results; effective use of modern intelligent, information computer-integrated technologies; execution of design documentation in accordance with regulatory requirements.

"Mathematical methods of optimization"

The subject of the discipline "Mathematical methods of optimization" is focused on on acquiring knowledge of students of educational and qualification level "Master" ideas about processes in electrical networks and systems; and methods of calculation and conditions of optimal control of electrical networks and systems. The main tasks of the discipline are presented through the system of knowledge, skills and certain experience given in section 1 of this curriculum.

The purpose of the discipline is to get acquainted with the basics of the application of mathematical methods for solving problems of optimizing the development of power systems.