

Developing a rational prospective structure of the Unified Power System of Russia based on multicriteria optimization.

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The article addresses the task of developing a rational prospective structure of generating capacities (hereinafter referred to as the rational structure), which is solved within the framework of developing a master plan for the placement of electric power facilities (hereinafter referred to as the master plan). Taking into account modern requirements for long-term planning of power generating industry development, the application of multicriteria optimization is proposed to solve the considered task, and the corresponding method is presented. The proposed method was tested by forming the prospective structure of the UPS of Russia for the year 2042.

Key words: rational prospective structure of generating capacities, multicriteria optimization, master plan, power industry development planning.