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THE STATE AND PROSPECTS OF HYDROENERGY OF UKRAINE

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Abstract

The features and the analysis of the program of development of hydropower of Ukraine till 2026 are determined. It is shown that at present, the use of hydroelectric and hydroaccumulation plants to cover peak loads, both in terms of both technical and economic and environmental performance inferior to more advanced methods. New technologies of coating peak loads, frequency and power regulation in power systems that are able to compete successfully with hydroelectric power plants are considered. Determine the minimum volumes of maneuver capacity that the Joint Energy System of Ukraine should have in its composition. A comparative analysis of technical and economic and environmental characteristics of the project of the Kaniv hydroaccumulation plant and an alternative project for the construction of a complex of consumers-regulators on heat pump installations is performed. On the example of the project implementation, the compaction of the schedules of electrical loads by the introduction of

electric boilers on the heat and power plant by the commissioning in the power grid of Belarus of a nuclear power station with a capacity of 2380 MW shows the advantages of this solution. The results of the comparative study of the frequency and power regulation processes in power systems with powerful wind and solar power stations in which the stability of the frequency is ensured by the introduction of a system of powerful storage batteries and hydraulic power plants are given. The advantages and disadvantages are defined. References 12.

Key words: hydro-and hydro-accumulating power plants, shunting power, consumer-regulators in heat pump installations, frequency and power control in systems with wind and solar power stations.

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