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SO UPS and Rosenergoatom performed tests of FNPP participation in primary frequency control in the Chukotka power system

SO UPS and Rosenergoatom performed successful tests of the participation of the floating nuclear thermoelectric power plant (FNPP) Akademik Lomonosov in the primary frequency control (PFC) in the power system of the Chukotka Autonomous District.

The tests took place in the summer of 2024 and proved the feasibility of FNPP to participate in the overall primary frequency control on a regular basis. Since 15 August, FNPP has been participating in the overall PFC in this isolated power system. FNPP's participation significantly improves the efficiency of frequency control in the Chaun-Bilibino power district, which is the largest in the regional power system.

SO UPS is responsible for system operation and dispatching control in isolated power systems since January 1, 2024, and often registers frequency deviations in the Chaun-Bilibino power district, both under emergency and in normal conditions. The reason is that historically power plants are not equipped with automatic frequency control (AFC) devices in this region.

The analysis of trial results showed a high quality of PFC after switching the operation of AFC from the 'Basic' mode to the 'Maneuvering' mode. 'Maneuvering' maintenance of the nominal turbine speed of 3000 rotations per minute with a specified irregularity of 4-5% is ensured. After switching on, frequency deviations of the current flow did not exceed ± 0.05 Hz from the set value, which meets the normative requirements for frequency control and active power flows.

ENDS.