

Rosatom celebrates the anniversary of the world's only floating nuclear power plant

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Five years ago, the world's first-ever Floating Nuclear Power Plant (FNPP), Akademik Lomonosov, went into commercial operations in the Western Chukotka region of Russia. Since then, it has become a reliable source of uninterrupted heat and electricity for the Chaun-Bilibino energy hub, which is isolated from Russia's Unified Energy System.

Over its five years in operation, the FNPP has generated more than 1 billion kWh of electricity. Nowadays, the plant accounts for over 60% of total energy production in the Chaun-Bilibino hub. Moreover, the FNPP continues to increase its output yearly, demonstrating its ability to meet the region's energy demands.

The FNPP is powered by two KLT-40S reactor units — similar to those used in nuclear icebreakers. The FNPP provides 70 MW of electricity and 50 Gcal/h of heat. The onshore infrastructure distributes this energy

to end users. Unlike traditional land-based nuclear power plants, which partially refuel every 12 to 18 months, the FNPP undergoes a full core refueling every few years, replacing all spent fuel at once.

The development of small modular nuclear power plants (SNPPs) remains a key strategic priority for the future. They open up fundamentally new opportunities for delivering energy to hard-to-reach, Arctic, and remote areas, as well as to industrial clusters with low but stable power demand.

Rosatom's Electric Power Division is the major producer of low-carbon electricity in Russia. The division is managed by Rosenergoatom, which operates 11 nuclear power plants, including the world's only floating nuclear thermal power plant. Its 35 power units have a combined capacity of 28.5 GW, generating nearly 19% of Russia's electricity.