

The Energy Potential of the Arctic: Implementing Projects and Developing Logistics

KEY CONCLUSIONS

The Arctic region is becoming a key source of Russian energy

"The Arctic zone is home to 72% of the hydrocarbons located in the Russian Federation [...] The Varandey project, an oil loading terminal that has been taken offshore, is one of the projects that is already functioning. Novy Port is a similar project with an offshore terminal. One major project is the Prirazlomnoye field, where there is an ice-resistant platform that allows for mining in thick ice and low temperatures [...] The projects that are being implemented are moving further north and east", Director of the Department of Oil and Gas Production and Transportation at the Russian Ministry of Energy Alexander Gladkov said.

"Once we reach the strategic level of review, we see that by 2035 the traditional area of subsoil use will provide only half of the volume that can be extracted in Yamal. New areas will account for a serious share in our country's overall production. Promising subsoil areas contained 25 trillion cubic metres. This means RUB 9 trillion in investment. From a fundamental point of view, we are on the verge of a new wave of development in Yamal", Deputy Governor of the Yamal-Nenets Autonomous District Alexander Kalinin said.

"The conditions in which ships operate are challenging. Nevertheless, anything is possible. In the most difficult conditions, we carried out 13 shipments in the winter. There wasn't a single incident. All the ships were processed and left. Everything was delivered to customers on time, and there wasn't a single stop in production", Yamal LNG Deputy Director for Marketing and Sea Transportation Kirill Bogdanovsky said.

Developing the Northern Sea Route will create a breakthrough in travel between Europe and Asia

"This isn't just a transport corridor for transporting oil and gas. Once we are able to meet the goals set by the President and provide year-round navigation along this route, it will be a new transport route that can reduce the route from Asia to Europe by 30%. For a ship, that's an eternity. In the modern world, there have been no such breakthroughs for a hundred years", Russian Deputy Minister of Energy Pavel Sorokin said.

PROBLEMS

Major investments are needed in logistics

“Establishing logistics and transport infrastructure in harsh conditions requires huge investments. Shipping infrastructure isn’t the only thing being created. It also involves icebreakers, helicopter support, and the creation of an early warning system for ice movement. This is one of the biggest and overarching challenges”, Gladkov said.

Large-scale projects have little effect on the regional economy

“When implementing large-scale projects, we must understand what they offer in terms of preserving and multiplying competitive advantages [...] The Kola Peninsula is entirely located within the Arctic zone, but it has neither oil nor gas [...] We receive more than 900,000 tonnes of fuel oil by rail for heating. At the same time, 13 million tonnes are transported to the harbour transshipment centre. Oil is passing by us while we are drowning in fuel oil which we pay for”, Deputy Governor of the Murmansk Region Evgeny Nikora said.

SOLUTIONS

Increased resource production facilitates the development of the Northern Sea Route

“By 2035, we will be producing about 13 million tonnes of oil and be ready for up to 670 billion cubic metres of gas in the Arctic zone according to various scenarios. Part of this gas will be transported through the existing transport system, but a significant amount will be transported by sea using the Northern Sea Route”, Gladkov said.

The regions should benefit from the implementation of Arctic projects

“We are interested in replacing temporary and environmentally risky oil transshipment with modern coastal complexes using the latest developments in bulk cargo transshipment. This will create conditions for the construction of oil refining facilities on the Kola Peninsula, which will help to replace exports of crude oil with exports of petroleum products that have high added value”, Nikora said.

The icebreaking fleet needs to be expanded to develop Arctic territories

“The Northern Sea Route cannot be developed without icebreakers. There are plans in place to build new nuclear icebreakers, diesel icebreakers, and powerful port icebreakers”, Head of the Federal Sea and River Transport Agency’s Shipping Safety Department Denis Ushakov said.

“There has been a steady increase in cargo traffic since 2006. Our vessels were originally provided for the Norilsk Plant. Now we are transitioning to work with hydrocarbon products”, Atomflot Shipping Safety Department Director Sergey Strelnikov said.

Russian-made technologies needed to produce and transport energy resources in the North

“We developed and patented our own pillars for the construction of our northernmost oil pipeline. We built most of the pipeline above ground. We have gained invaluable experience in building and working in the conditions of the Far North. We have developed oil pipeline monitoring programmes that allow us to operate in this region without incident”, Head of the Transneft Strategic Development Directorate Rasim Mingazetdinov said.