
The Role of Natural Gas in the Energy Strategy of Eastern Russia

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The energy sector of Russia is an important part of world energy. Despite the existing economic problems, the Russian energy sector has intensified its significance in the country's economic system, and it is sustaining the country's position in the world arena.

Among the priorities of Russia's long-term energy strategy, an important place belongs to developments in the eastern (Asia-Pacific) regions of the country. This is because a considerable proportion of the country's fuel and energy resources is found in these regions: East Siberia and the Russian Far East. The eastern regions of Russia have 43% of the total confirmed coal reserves in Russia, about 18% of predicted oil resources, and about 30% of natural gas reserves. Taking into account the shelves of the northern and Far-Eastern seas, the oil and natural gas reserves could be even higher. In addition, East Siberia and the Russian Far East have more than three-fourths of the hydropower resources that can be developed economically.

The use of the rich energy resources of the eastern territories in Russia's energy strategy is considered here in terms of two main preconditions. First, the abundant primary energy resources of the eastern regions ensure the long-term supply of energy for these areas and contribute to their economic development and prosperity. Second, the integration of Russia's energy sector into that of Northeast Asia is promoted by the geographic position of the eastern regions and their proximity to one of the world's big developing regions: Northeast Asia, which is now and will remain in the future a major consumer of primary energy.

It should be noted that these two preconditions are interrelated in the structural priorities of the energy strategy of the eastern regions. A prominent place in the realization of these preconditions belongs to natural gas, which is expected to be a driving force in the development of the energy balance of Russia's eastern regions and the rest of Northeast Asia.

The main sources of natural gas in East Siberia and the Far East are the following.

The bulk of the confirmed hydrocarbon resources is concentrated in the deposits of southern areas of the Siberian platform (Krasnoyarsk Krai, Irkutsk Oblast, the Sakha Republic), where gas reserves are estimated at more than 3.64 trillion m³. The natural gas output in the Siberian platform could exceed 60 billion m³ per year.

A reliable raw material base in the Far East has been formed in the Sakhalin shelf, which has about 1 trillion m³ of proven gas reserves. Taking into account

the predicted reserves, gas output on the Sakhalin shelf could amount to 45 billion m³ per year.

At present, a number of major gas projects in the eastern regions of Russia are being considered for:

- creating a large center for natural gas extraction in Irkutsk Oblast on the basis of the Kovyktinskoye gas deposits
- developing gas deposits in southwestern and central Yakutiya, with gas transfers to the south of the Far East, China, and the Korean peninsula
- creating a gas center on the Sakhalin shelf.

These gas-extracting centers (the north of Irkutsk Oblast, the southwest and center of Yakutiya, and the northeastern shelf of Sakhalin) can become the principal integrated gas transportation system of the eastern part of Russia. It will supply natural gas to a huge territory, extending from Irkutsk to Vladivostok, and to consumers in neighboring countries.

The implementation of this gas strategy is not easy, quick, or inexpensive. Costs and benefits must be considered.

The use of natural gas can help to achieve four main objectives of the energy strategy of Russia's eastern regions: promotion of economic development, energy security, enhancement of efficiency in energy use, and environmentally sound energy development.

The impediments and restricting factors are as follows:

- high investments required
- insufficient internal demand for the profitable development of gas projects and the necessity to export natural gas
- lack of adequate infrastructure in eastern regions of the country and adjacent Northeast Asian countries
- subsidizing prices for competitive types of fuel
- demand for a multilateral and multinational approach (which escalates transaction costs)
- insufficient experience in international trade in pipeline natural gas in NEA.