



ZMENA EUROPSKÉHO VEKTORU ENERGETICKEJ POLITIKY RUSKA SMEROM K ÁZIJSKO-TICHOMORSKÝM KRAJINÁM

THE CHANGE OF EUROPEAN VECTOR OF RUSSIA'S ENERGY POLICY TOWARDS ASIA-PACIFIC COUNTRIES

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V súčasnej geopolitickej situácii súvisiacej s obmedzeniami členských štátov EÚ v oblasti obchodných a hospodárskych vzťahov s Ruskou federáciou je rozvoj systému vývozu energie východným smerom jednou z priorit a hlavných zdrojov ruskej ekonomiky v strednodobej perspektíve. Článok je venovaný hodnoteniu predpokladov a príčin súčasných aktivít Ruskej federácie smerom na východ. Východny vektor ruskej energetickej politiky predpokladá rozvoj energetickej infraštruktúry na východných územiach Ruskej federácie a vývoz ruských energetických zdrojov do krajín ázijsko-pacifického regiónu.

Kľúčové slová: energetická politika, energetická stratégia, Rusko, Európska únia, Čína, ázijsko-tichomorské krajiny

In the current geopolitical situation related to the restrictions of the EU member states on trade and economic relations with the Russian Federation, the development of a powerful energy export system in the eastern direction is one of the priorities and main sources of the Russian economy in the midterm. This article is devoted to review the prerequisites and causes of the current activity of the Russian Federation in the “eastern direction”. Eastern vector of Russia’s energy policy envisage the energy infrastructure development in the eastern territories of the Russian Federation and the export of Russian energy resources to the countries of the Asia-Pacific region.

Key words: energy policy, energy strategy, energy supplies, Russia, European Union, China, Asia-Pacific countries

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1 INTRODUCTION

When discussing the current and future agenda of mutual relations between Russia and the European Union, nearly always one of the most important elements of the discussion nearly always is energy cooperation, since the major energy potential of Russia and the energy consumption structure of the European Union make the parties quite dependent on each other.

However, for many reasons, Russia and the EU no longer discuss the creation of common energy markets “from Lisbon to Vladivostok“. In the energy sector, this was manifested in the EU member states' search of an alternative to Russian energy supplies, primarily natural gas. North African, Middle Eastern and the Caspian region fields are being considered. Russia, in turn, has made agreements on the supply of energy resources to China and Turkey, and is looking for further opportunities to develop energy exports in the eastern direction. Both sides consider the geographical diversification of energy trade and energy cooperation as one of the means of increasing their energy security.

Diversification of the direction and nomenclature of energy exports is becoming one of the priority development areas for the Russian energy sector in the first half of the 21st century. Russia's energy policy is not aimed at opposing cooperation with Europe by cooperating with Asia, but this direction is a legitimate alternative to fragile energy cooperation with EU member states.

2 PREREQUISITES OF THE CHANGE IN THE ENERGY POLICY VECTOR OF THE RUSSIAN FEDERATION

One of the aspects of cooperation between the European Union and Russia, stimulating the change of Russia's energy focus, is the natural, consistent course of the European Union member states to diversify sources, suppliers and routes of transportation of energy carriers, to develop new energy sources, as well as energy efficiency technologies. These objectives are indicated as being key in the most fundamental energy strategies of the European Union from the point of view of ensuring the security of the region: “Europe 2020: a strategy of rational, sustainable and inclusive growth” (EUR-Lex 2010a) dated November 10, 2010, “European strategy for energy security” (EUR-Lex 2010a) dated May 28, 2014, etc.

At the same time, one of the goals of the European policy of diversifying energy imports is to reduce the share of Russian hydrocarbons in the energy balance of EU member states and, consequently, the overall energy dependence of the European region on Russian energy resources. Further, Europe's energy dependence, despite its gradual weakening, remains significant: according to OPEC experts, on average, the EU depends on Russia for gas supplies by 43%, oil – by 32%, coal – 50% (OPEC 2018). According to experts of the European Commission, the six EU member states

are characterized by one hundred percent reliance on Russian gas: Slovakia, Finland, Bulgaria, Latvia, Lithuania, Estonia.

By developing new supply corridors, the EU is simultaneously creating strategic hydrocarbon reserves: in 2014, for the first time in history, Europe's gas storage facilities in the volume of 80 billion cubic meters were almost completely filled (Oganesjan 2014). As of October 2018, this figure is more than 100 billion cubic meters (Naftogaz Europe 2018). In addition, each year the EU countries improve the interconnection between gas transmission systems within the European Union in case of an urgent necessity for mutual exchange of resources, as well as carry out measures to unify the pricing policy. According to the forecasts of industry experts, in the long term, the gas transmission system of the entire European Union may be merged and a single operator may appear in case of an urgent necessity (for example, due to another energy crisis).

Currently, the main efforts of the EU are focused on developing energy expansion in Central Asia and in the countries of the Middle East and North Africa. Also special attention deserves the "The Southern Gas Corridor", in which the EU is actively cooperating with Azerbaijan and Turkmenistan. The planned corridor consists of four links:

1. Trans-Adriatic gas pipeline (Caspian region, Greece, Albania, Adriatic Sea, Italy).
2. Trans-Anatolian Pipeline (Azerbaijan, Turkey, Europe).
3. Interconnector "AGRI" (from Azerbaijan to Central Europe through Georgia and Romania).
4. Trans-Caspian gas pipeline and the East-West pipeline (Turkmenistan, Azerbaijan, Turkey, Europe).

After reaching the design capacity, the total capacity of the listed pipelines will be about 80 billion cubic meters. It should be noted that some of the listed projects are at the implementation stage and will be launched no earlier than in 2020.

"Southern Gas Corridor" filling is planned mainly from the Azerbaijani "Shah Deniz" field (about 10 billion cubic meters of gas) and subsequently from the gas fields of Iraq and Iran. In connection with the completion of the East-West gas pipeline construction, which united the fields of Turkmenistan and the signing of the Convention on the Status of the Caspian Sea, Turkmenistan also became a powerful source of gas (up to 30 billion cubic meters per year) for SGC (Kaveshnikov 2013).

At the same time, there are also certain prospects for the EU in the Caspian region in terms of supplies of liquefied natural gas (LNG) from Iran, which is capable of producing about 226 billion cubic meters of "blue fuel" by 2030 (De Micco 2014).

Thus, according to BMI Research, the first outward cargo of Iranian liquefied natural gas will be exported at the end of 2018, after a joint venture of the Iranian oil refining company Kharg and Helma Vantage began negotiations with the Belgian shipowner Exmar to lease its vessel for the carriage of LNG "Caribbean FLNG" for a short term. The joint venture has already made a deal with the National Iranian Oil Company to use a vessel with a carrying capacity of 500,000 tons of LNG. The joint venture will also be responsible for the storage and transfer of future LNG cargo. The cost of the project will amount to 600 million dollars (Baritakis 2008).

In the MENA region, the EU's main partner is Algeria, the second largest country in Africa in terms of gas reserves after Nigeria and the third country in terms of gas supplies to Europe. Deliveries to the EU from Algeria are carried out via three gas pipelines: Medgaz, Magrib-Europe and Enrico Mattei Gasline. The total capacity of the projects is 53 billion cubic meters. In addition, there are high hopes for the GALSI gas pipeline with a capacity of 8 billion cubic meters and Transsahar gas pipeline with a design capacity of about 30 billion cubic meters (Edison 2018).

An important role in the Maghreb region is played by the "Mediterranean Gas Ring" project, which consists of several gas transmission lines, among them the "Greenstream" (Libya - Italy), and the "Arab gas pipeline" (Egypt, Jordan, Syria, Lebanon, Turkey, Cyprus). As for the rest of Africa, it should be noted that Nigeria has enormous potential, taking into account its largest gas reserves in Africa. Currently, the country specializes mainly in the LNG supply to the European continent – approximately 19% of the European market (European commission 2018).

A key place in the European strategy to diversify sources of energy imports is held by the world's leading LNG exporter, Qatar, with a share of 41% of the total LNG imports to Europe in 2017 (Neftianka 2018).

Discussions are in progress regarding the "Desertec" project on the development of solar energy on the African continent and on the further supply of clean energy to Europe. Construction of solar power plants is planned in North Africa, as well as laying the necessary infrastructure for its transportation, which, according to the forecasts, will cost European countries about 400 billion euro, which will reduce electricity costs in Europe by about 40%, as well as satisfy 20% of European energy consumption. In addition, should the project be implemented, the "Desertec" can make a significant contribution to the share increase of renewable energy sources in the total European energy mix up to 90% by 2050 (Desertec 2017).

Dramatic changes are possible in the US-European energy cooperation in the midterm. There are certain positive trends in the supply of LNG from the United States. The first LNG supply from the USA to the EU took place in April 2016. The EU has since received over 40 LNG supplies from the United States. At the end of 2017, Europe accounted for more than 10% of total US LNG exports, up from 5% in

2016. At the same time, the European Union intends to buy more liquefied natural gas from the United States. This was announced by the head of the European Commission, Jean-Claude Juncker, and the President of the United States, Donald Trump, after negotiations, which were held in July 2018 (Prime 2018).

Along with the geographical expansion of fuel supplies and the implementation of projects related to the development of renewable energy sources, the EU is aiming at a general increase in the energy efficiency of the European economy. Thus, on July 23, 2014, the European Commission formulated a new goal – energy efficiency increase in EU countries by up to 30% by 2030 (European commission 2013), which is achievable, provided that major investments are made in the field of energy efficient technologies and modernization of heating systems.

These factors, along with the European Commission's refusal to build the "South Stream" gas pipeline, have influenced Russia's substantial revision of its interests in favor of the east direction. With this background, the conclusion of a long-term contract with the PRC in 2014, involving the supply to China of 38 billion cubic meters per year totaling 400 billion USD has become a balanced and natural step of the Russian Federation in the current market conditions.

According to preliminary forecasts, only China, which by 2040 is capable of becoming the main gas consumer in the world, will account for about 20% of Russia's export of "blue fuel" (Expert 2017). The agreement opened up opportunities for Russia to invest in the development of pipeline infrastructure in its eastern territories, the development of new fields, and also created the basis for future expansion into new markets in the Asia-Pacific region.

3 EASTERN LANDMARK IN RUSSIA'S ENERGY STRATEGY

For the first time, the "eastern vector" of Russia's energy policy was set in 2003 in the "Energy Strategy of Russia for the Period up to 2020". This strategy, as well as its updated version "Energy Strategy of Russia for the period up to 2035" (Ministry of Energy of the Russian Federation 2009), develops and clarifies the necessity to develop the energy sector of the eastern territories of Russia. The main objectives of this strategy include the following:

- achieving maximum profit from economic activities in the field of energy exports, expanding the business of Russian organizations in the markets of Asia-Pacific region countries;
- attracting investment and technology from the APR countries to the Russian Federation;
- diversification of the export commodity structure, increasing the volume of export of products with a higher proportion of added value;

- consolidation of new forms of energy cooperation in the APR markets.

The priority of the development of the eastern direction in the development of the fuel and energy complex of Russia may be due to the following factors:

1. The necessity to expand the areas of export of Russian fuel and energy resources, whose consumers currently are mainly EU member states.
2. Russia's intention to enter the energy markets of the Asia-Pacific region countries, characterized by the highest growth rates of primary energy consumption in comparison with other regions of the world.
3. Favorable economic, geographical and geopolitical position of the eastern territories of the Russian Federation, namely the presence of large amounts of fuel and energy resources, the development of which would overcome the social and economic difficulties of a large region.

The priorities in the development of the energy sector of the East of Russia are geological exploration and development of oil and gas fields in Eastern Siberia, the Far East, and the shelves; development of new coal fields in Siberia and the Far East; creation of petrochemical and gas processing enterprises in Eastern Siberia and the Far East; oil refinery construction; creation of the necessary transport and energy infrastructure; completion of the of the Eastern Siberia – Pacific Ocean oil pipeline construction; increasing the participation of Russian companies in the exploration and development of new fields; construction of the Siberia-Far East-ATP gas pipeline system.

In this regard, the reorientation of Russian energy supply routes to eastern markets seems very attractive for the Russian energy sector, as it will mobilize and evenly distribute the infrastructure for the extraction, storage, processing and transportation of energy resources of the Russian Federation taking into account the most profitable, convenient and promising places both in terms of new field development and further realization of the extracted resources in the internal and external marketplace. In addition, the development of such a powerful energy complex in its eastern territories will allow Russia to provide an additional number of workplaces and provoke an influx of population into the newly formed socio-economic niche.

It should be noted that after the 2008 crisis in the Far Eastern region of Russia there was not a single disastrous year in economic development. Thus, the industrial production index in January-September 2018 on average in Russia amounted to 103.0%, and in the Far East – 121%. Contribution to capital assets did not exceed the

pre-crisis indicators and amounted to 99%, while in the Far East it showed a growth of 124.9% (Russian Federal State Statistics Service 2018).

At the same time, the economies of Eastern countries have higher rates of GDP growth, which exceed this figure in developed countries by several times. Thus, in 2017, GDP of China grew by 6.9%, India – by 6.6%, Vietnam – by 6.8%, Indonesia – by 5.1%, and GDP growth in the major Western nations was about 2-3% (World Bank 2018). In this regard, Russian energy carriers can become the basis for both the implementation of economically viable export-oriented projects and the development of new large-scale raw materials processing plants.

At the same time, the prospects for the development of the “eastern vector” of Russia's energy policy are associated with overcoming various challenges, including:

- higher costs for the field opening and development compared to other subjects of the Russian Federation;
- difficulties in processing the multicomponent composition of the extracted raw materials (high content of associated petroleum gas, helium, ethane, heavy hydrocarbons, and others);
- insufficient amount of geological exploration for prospective oil production and supplies through the Eastern Siberia - Pacific Ocean oil pipeline;
- extremely underdeveloped transport and energy infrastructure in the areas of resource extraction;
- issues related to transportation, as well as the sale of resources in foreign markets (pricing issues);
- lack of investments, including foreign ones, which is associated with objective risk and certain difficulties of projects under development, as well as with a lack of incentives and anti-Russian sanctions from the Western parties.

4 RUSSIA'S ACTIVITY IN THE „EASTERN DIRECTION“

According to experts' forecasts, the share of China in Russian export will increase from 10% in 2017 to 20% in 2035, while the share of the European Union will decrease from the current 45% to 37% (Russian Trade 2018). Even today, due to the decrease in the volume of import and the diversification of energy supplies to the countries of the European Union, Russia is actively cooperating with the countries of the Asia-Pacific region, developing fields in Eastern Russia and creating a new energy infrastructure. In the Far East, the construction of power plants and electrical networks is being developed in order to interconnect the region's fragmented power system and also ensure the export of electrical energy to China.

In China, a significant increase in gas consumption is expected due to the growing labor productivity and the intention to solve the country's environmental problems as a result of coal consumption. The gas infrastructure development in the east of Russia is aimed at laying gas pipelines to China, where Russia seeks to occupy a stable position. Thus, one priority project is the Western project - the Altai gas pipeline, the other is the Eastern gas pipeline project from the Far East and Eastern Siberia. However, as of today, the parties have not agreed on gas prices, and also have not resolved the issue of the exchange of assets in the gas industry.

At the same time, Russia cooperates with the PRC in the field of supplies of liquefied natural gas. Thus, in July 2018, the first deliveries of Russian liquefied natural gas (LNG) arrived in China. The fuel was extracted and liquefied at the Yamal LNG plant. There were 172 thousand cubic meters of gas produced in the South Tambeyskoye field of the Yamal Peninsula on board of each tanker. According to the Russian Minister of Energy A.V. Novak, since December 2017, when the first line was launched, Yamal LNG has already shipped three million tons of liquefied gas (equivalent to 4.14 billion cubic meters of natural gas). Majority of which is for China under a long-term contract (Vedomosti 2018).

Russia also plans to increase coal deliveries to Asian countries. The main importers are China, Japan, South Korea, Taiwan. With that, in China, 3/4 of electricity is produced by coal-fired power plants. Russia intends to increase coal exports to the Asia-Pacific countries to 200 million tons. In August 2018, Minister of Energy Alexander Novak pointed out the prospects for increasing export to the east: coal consumption continues to increase in the countries in the Asia-Pacific region, while Western countries are trying to reduce its share in their energy mix. "Last year, global coal consumption growth resumed, owing to Southeast Asia, India, Turkey and a number of other countries, the increase in demand by 2025-2030 will amount to at least 100 million tons, and it is in our interests to use this additional demand" Novak said. According to him, by 2025 there is an opportunity to double the volume of supply in the eastern direction, increasing the share of Russian coal in the listed markets from the current 9.3% to 20%. In 2018, coal export from Russia is expected to exceed 200 million tons: approximately 100 million tons each in the western and eastern directions. At the same time, an increase in coal production and expansion of the railway infrastructure will require more than 20 billion USD from Russia over six years, Novak told on the commission meeting. According to him, first of all, coal mining is expected to grow in Kuzbass, Khakassia, Yakutia, Khabarovsk Krai and other regions (RBC 2018).

It should be noted that China is intensively increasing its efforts to extract its own gas, and is developing unconventional gas fields (there are reserves of coal methane and shale gas in the country). According to the statistical agency at the US

Department of Energy (Energy Information Administration), shale gas reserves in China amount to 36.7 trillion cubic meters, which is 12 times more than the traditional gas reserves. However, the possibilities of its production in the country have not yet been fully studied. Therefore, in 2011, China conducted an experiment with drilling a well, which took almost a year and this did not provide any special results. At the same time, China avoids dependence on one supplier and, in an effort to ensure the energy security of its economy, diversifies, in particular, gas supplies (gas pipelines from Turkmenistan to China and from Myanmar to China, LNG supplies from Australia).

A promising direction is the Russian-Chinese cooperation in atomic energy. Currently, a project is underway to build 3, 4 units of the Tianwan APS, which is the largest object of China's economic cooperation with Russia. As of September 2018, three units were built and put into operation, the fourth is under construction. In total, the general plan of this APS provides for the construction of 8 power units. In September of this year, nuclear fuel was loaded into the VVER-1000 reactor of the Russian production of the Taiwan APS power unit No. 4 in China. Until the end of 2018, upon the completion of all the necessary commissioning activities, the physical start-up of the power unit will take place, when a controlled nuclear chain reaction will take place in the reactor. Then the stage of energy launch will begin with further connection of the new power unit to the power grid of China (Neftegaz 2018).

On a number of energy projects, Russia cooperates with Japan, which is first in the world in LNG imports. Other promising projects are projects on expansion of the capacity of the Sakhalin – Khabarovsk – Vladivostok gas pipeline, the construction of the Chayanda – Khabarovsk – Vladivostok gas pipeline, the construction of an LNG plant in Vladivostok, the implementation of an agreement on joint research, utilisation, transportation and sale of natural gas from Vladivostok to APR countries.

In addition, after the ratification of the Intergovernmental Agreement on the Peaceful Uses of Atomic Energy between Russia and Japan in 2012, a number of projects are being implemented, in particular, to enrich Japanese uranium at Russian plants. Negotiations with the Japanese companies on the development of new oil and gas fields in Eastern Russia are being actively conducted (Neftegaz 2018).

The interaction of Russia and the Republic of Korea in the energy sector is based on the development of energy efficient technologies, the modernization of the power grid system of Russia, utilisation of renewable energy sources and the construction of nuclear power plants in third countries. In addition to that, the project of delivering Russian gas through North Korea to South Korea is of strategic importance.

Russia also made an agreement with Vietnam on the joint development of the Vietnamese shelf. In September 2018, Russia and Vietnam signed a memorandum of

cooperation on the supply of liquefied natural gas and the development of gas power generation.

Also, the leaders of Russian gas extraction, Gazprom, NOVATEK and Rosneft, are preparing to supply liquefied gas to the Thai market, which is suffering from an increase in consumption with declining production (LNG World News 2018).

Thus, in the coming decades, Russia, while actively cooperating in the field of energy with the CIS countries and the EU, will diversify its energy flows to the Asia-Pacific region, where the main partners are China, Japan, the Republic of Korea, etc. At the same time, the implementation of foreign policy “eastern vector” has already brought Russia some results, including:

- development of new oil fields in the north of the Irkutsk region;
- export of electric energy (gas is in prospect) to Japan;
- laying of the oil pipeline Skovorodino to the PRC border;
- construction of an oil refinery in Tianjin;
- implementation of the Sakhalin-1 and Sakhalin-2 projects;
- development of gas chemical enterprises in Eastern Siberia;
- export of LNG (soon electric energy) to the Republic of Korea;
- construction of a coal mining complex in the Republic of Sakha (Yakutia);
- gas export (in the form of LNG, also through the pipeline in prospect).

5 CONCLUSION

In recent years, the necessity for a radical change of guidelines in the external energy policies of Russia and the EU has been gradually emerging due to the high politicization of the energy dialogue. Change in relations between Russia and the European Union in the field of energy entails an increase in sectoral and macroeconomic risks. The deterioration of the trading terms in the energy sector will not lead to catastrophic consequences for any of the parties, but it will jeopardize the interaction mechanisms, which took decades and immense material and financial resources to build.

In the current situation, Russia seeks to ensure the energy security of all subjects of the Russian Federation, as well as use the existing oil and gas market conjuncture to create an energy infrastructure, socio-economic development of its eastern territories, and strengthen its position in the Asia-Pacific markets.

In addition, given the advantageous geographical location, powerful energy potential, vast territory and human resources, Russia seeks to play a special role not only as an energy supplier, but also as an important link in the energy transport bridge

between East and West. Since Russia covers a very large part of Eurasia and is adjacent to countries and regions which are rich in energy resources, it can be a key intermediary in the transportation of significant amounts of energy resources. In particular the Middle East, Central Asia, as well as Western Siberia and the shelf of the Arctic Ocean.

The restoration and further development of the energy dialogue between Russia and the EU will require the parties to search for compromises and a balance of interests. This is not an easy task, its solution will require new forms of interaction, where fresh ideas, flexibility and rejection of stereotypes are essential.

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