

5 basic principles of energy security



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Energy security is put in first place among the priorities facing the European Union. Although the problems of ensuring energy security were standing in front of a united Europe from the beginning of the integration process in recent years they have acquired the greatest relevance and importance for the EU. This is due to the fact that today the EU depends 50% on external energy supplies to its market and on the policies pursued by supplier states. In addition, European countries are concerned about the well-known problems with the energy supply for them against the backdrop of turmoil between Russia, as the main EU energy supplier and Belarus and Ukraine, through whose territory the Russian hydrocarbons are delivered to the West. Russian-Ukrainian standoff on the issue of gas prices and transportation is the major concern of EU member states and compel them to talk about the need to diversify energy supplies.

Concentrating 7% of world population, more than a quarter of world GDP and 20% of world trade, the EU has only 2% of the world's "black gold" and 4% natural gas. Limitation of its own resource base in Europe accounts for a significant dependence of the EU on external energy supplies. The European natural gas market is the third largest in the world. The volume of gas consumption in EU countries reached 513 billion m³ (21% of world consumption). Russia is the second largest EU oil supplier and provides 33% of the EU "black gold" needs. The Russian Gazprom is the leader in EU natural gas supplies with 46% of total. If we talk about security of energy supplies, the main task in this area is the energy sectors geographical and resource diversification i. e. the expansion of supply sources, supply routes and pipelines.

The EU security in energy sector

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The European Union is seeking to protect self from energy dependence on Russia with diversification of natural gas supplies policy by agreements with non-conventional energy suppliers, the Caspian states (Caspian states have only 4-5% of world's gas reserves). But due to the unreliability of Russian energy supplies through third countries (Belarus and Ukraine) as well as the possibility of using Russian resources as a political tool, transporting Caspian Sea hydrocarbons (Azerbaijan, Kazakhstan and Turkmenistan) to the West has acquired great importance to the EU.

Improve supply reliability and energy security EU responsible implementation of the Southern Gas Corridor. The planned corridor is composed of three parts: the Trans-Caspian gas pipeline (the project provides for delivery of natural gas from Kazakhstan and Turkmenistan to Azerbaijan), Baku – Tbilisi – Erzurum (from Azerbaijan through Georgia to Turkey) and Nabucco (from Turkish territory, via Bulgaria, Romania, Hungary Austria).

Thus, the reliability of energy supply in Europe is due to the changing geography of supply, increasing the number of exporting countries, the creation of new infrastructure facilities.

In the face of increasing competition from non-traditional suppliers of hydrocarbons Russia is very important to maintain the competitiveness of

their energy in the European market, to ensure effective and reliable conditions for their transit to Western Europe.

From the European Union course to diversify energy imports implies Russia's post-Soviet space deterrence, to avoid direct or indirect control by the latter over the mining sector and transit infrastructure in surrounding areas.

Revealing in this regard, the role of such organizations as the GUAM (Georgia, Ukraine, Azerbaijan and Moldova), which can be an active participant in “ non-Russian” energy supplies to European markets.

Major energy projects GUAM is the “ White Stream”. White Stream – the idea of the Ukrainian side to diversify natural gas supplies to Europe and Ukraine and reducing dependence on Russia. According to the concept of developers this pipeline should pass along the Eurasian oil transport corridor, i. e. from Azerbaijan to the Georgian port of Supsa, and then across the Black Sea to Ukraine and onward to the EU, bypassing Russia.

From a geopolitical point of view, the creation of transport corridor from east to west, bypassing Russia, on a plan of Brussels, will:

To diversify energy supplies to reduce dependence of the EU from Russia and thus ensure energy security;

Dismantle the transport system of the former Soviet Union, largely through the territory of Russia and provides strategic control over the export of Central Asian energy resources;

Open the path to European Union cooperation with countries seeking to establish independent from Russian energy transportation routes;

Establish control over the hydrocarbon resources of the region and not to allow these resources were available to Russia;

At the expense of control over energy resources to ensure the establishment of political control over the countries of the region;

Set the geopolitical pluralism, independence (from Russia), the newly independent states.

Implementation of the EU projects such as the Nabucco, whose design capacity is 30 billion m³ of gas per year, is a complex challenge for the Russia's national interests towards Europe and tangibly affect Russia's foreign policy and foreign economic activity.

Russian energy resources – development and policy

Energy policy

Russia's European direction is traditionally occupies a leading position in trade of fuel and energy resources. The EU has come 53% of Russian oil exports and 62% – natural gas.

For Russia, with its unique geographical and geopolitical position, the problem of transit of energy resources are of particular importance, since it depends on the transit of hydrocarbons in the main markets of third countries. This implies the task of ensuring uninterrupted supplies of Russian energy exports to Europe.

Improving energy security EU calls for Russia to develop and implement a wide range of policy and energy initiatives aimed at diversifying sources of supply of hydrocarbons. Passionate desire of Russia to find new routes for transporting oil and gas to the EU, bypassing the neighbors (Belarus and Ukraine), good reason: a choice of routes is important because it allows not depending on the mood of the transit country.

Currently, construction of the North European Gas Pipeline “ Northern stream» (Nord Stream) will run under the Baltic Sea from Vyborg, Russia to Greifswald Germany. Capacity will be 55 billion m³ of natural gas per year. Implementation of this project will help solve the problem of diversification of export flows of gas, will expand supply in Western Europe and the implementation of Russia’s obligations under the concluded and the future long-term contracts for the supply of natural gas.

The second project is the South Stream (South Stream), which will run under the Black Sea from Novorossiysk to the Bulgarian port of Varna, and then divide into two branches and will pass through Serbia and Hungary to Austria through Greece to southern Italy. Capacity will reach 60 billion m³ of natural gas per year.

The main objective of these projects is to provide direct communication between the seller (Russia) and customers (Western, Central and South-Eastern Europe), bypassing the territory of Belarus and Ukraine, through which the now Russian natural gas to the EU through pipelines Urengoi – Pomary – Uzhgorod and Yamal – Europe.

As a Eurasian power, Russia is naturally interested in a free hand in its energy policy in all directions. At the end raises the question of correcting the current asymmetry of Russian energy exports in favor of the eastern direction. Russia's national interest is to diversify markets for energy resources, expanding the geography of supplies of hydrocarbons. Due to this, Russia reduces dependence on the potential risks and, of course, opens up new and promising markets.

To enter the Asia-Pacific region will create a pipeline “ Eastern Siberia – Pacific Ocean (ESPO) pipeline, which would connect the oil fields of Western and Eastern Siberia to the ports of Primorsky Territory in Russia and provide access to the markets of the Asia Pacific region.

This pipeline capacity of 80 million tonnes a year must pass from the Taishet (Irkutsk region), north of Lake Baikal through Skovorodino (Amur region) in the Pacific Kozmino Bay (Primorsky Krai).

The priority of Russian foreign energy policy includes the construction of a branch in China from being built oil pipeline “ Eastern Siberia – Pacific Ocean. Power outlet will be 15 million tones a year.

The implementation of the above projects will provide an opportunity to solve simultaneously the two most important geo-economic and geopolitical objectives: provide a way out of Russian crude oil to the rapidly growing market of the Asia and the Pacific region and reduce dependence on the main buyer of energy.

Tendencies of development of world energy markets and energy security issues

Malto history, why energy is needed, crucial statistics

In our fast developing world, according to recent prognosis, energy consumption can grow up to 30% within next 15 years. World oil demand can become higher for 42% and natural gas consumption will rise for about 60%.

Today's world market is characterised with four most important circumstances:

sharp rise of energy demand in developing Asian countries (up to 45% of perspective world growth in oil consumption)

increasing gap between demand and production volume of gas in economically developed countries (for example, by 2020 between 60% and 70% of gas consumption in Europe will be provided with the account of imports)

insufficient capacity for the production, processing and transportation of oil and gas as well as the limited possibilities of new sites

insufficient transparency of world energy market

All these conditions presented to the fore the problem of energy security. Also, the globalization process with which the world has faced in the twentieth century, directly affect the sphere of world energetic[1]. The enormous energy demand growth in Asia intensified competition for stable

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and cheap energy sources and in many parts of the world (especially rich in energy resources) occurring instability and conflicts. These circumstances contribute to energy instability and large fluctuations in energy prices. World reserves of cheap energy are reduced, crossed the zenith of production while consumption is growing steadily. In light of these circumstances should be considered global processes in the energy sector. If we take in consideration allocation of world's energy reserves, it can be seen that every part of the world has some reserves or reserves are allocated within reasonable range (e. g. Russia energy reserves are sufficient to cover rising European demand, Gulf of Mexico and Venezuela reserves are most convenient to America) Dijagrami. Expert's assessment say that there is sufficient energy reserves, but the cost of exploitation going to be sufficiently higher. World of cheap and accessible energy is definitely behind us. It is necessary to mention climate change and slowly growing tendency of reduction in CO2 emissions which will affect the consumption of fossil fuels but the global demand will not be reduced.

Achieving global energy security will be reached by the world community implementation of measures in three main areas:

Reliable supply of the world economy traditional forms of energy;

Increase the efficiency of energy resources and environmental protection;

Development and use of new energy sources.

All world and especially developed countries and largest energy suppliers have to contribute to achieving energy security.

Basic principles of energy security

Despite all the differences in the approaches of major states, there are common points in the understanding energy security. In fact, it is possible to isolate the basic principles that are more or less shared by all states.

Energy security is the mutual responsibility of both the energy consumer and the energy supplier. This is acknowledged by all, but the problems arise where the consumer and provider begin to demand each from other guaranties of supply or pay for these supplies. For example, in a moderate variant, the demand for guaranties of supply can lead to the consumer's request to allow him representing the economic interests of the company for development and transportation of energy resources in the provider country. This is the case where the EU requires from Russia opening its energy sector for European investments. On the other hand, Russia sets requirements of direct accessing to the customer delivery systems. In the radical version assurance of supply can be expressed in direct political and economic dictation towards supplier country, up to carrying out military operations against them. Also, in the recent history we have witnessed that supplier country can impose measures such as delivery cutoffs, which affected not only targeted countries but many others (Russia – Ukraine and Russia – Belarus disputes).

However, there is a third option, presented by Asian countries. It is the willingness to guarantee delivery due on the one hand, the participation of companies representing the economic interests of consumers in developing energy resources in the provider country, on the other – playing by the rules

of the provider country and investing heavily in infrastructure, mining and transportation. In this case, it is not a simple commodity-payment scheme, but a more complex investment, insurance and other contractual relationships. The consumer provides his assurance of supply at the expense of investment in infrastructure provider, so as to optimize the supply chain, making it more modern, less costly, etc. Suppliers, allowing consumers to develop projects in their territory introduce not only secure and stable market, but also a strategic investor.

Thus, we are talking about the principle of responsibility and interdependence of consumer and provider[2].

Further, despite the limited number of countries that act as energy suppliers, development of events shows that there is competition between them; moreover, the very limited number of suppliers can toughen this competition. Factor that stimulates competition among providers is definitely another principle called diversification of sources and suppliers. At the moment there is competition between energy suppliers and it must also be built into the system of global energy security.

The most important condition for this is the energy security depoliticization. In fact, the competition based on economic principles, competition for consumers is logical and understandable phenomenon. However, any use of energy resources for political purposes in the situation of rising demand leads to conflict, consequences of which can be unpredictable. Every attempt to put energy as a subject of political conflict is challenge to the global energy security system. Thus, the principles of energy security are also the

depoliticization and fair competition. Moreover, if we can present the competition between suppliers, it is much more serious phenomenon the competition between consumers. The global reduction of energy production will imply the competition among energy buyers and consequently instability in particular regions could appear.

Economic development without stable energy supply is impossible. Therefore, overcoming global problems such as poverty, epidemics, poor education, environmental challenge, without economic stability is unattainable. Energy supply and demand, market competition, joint investments, global warming, CO2 emissions, joint stability and many other factors indicate that energy security is primarily a global issue so we can point at another principle, the principle of globality.. In this context, we should not forget that energy security is inseparable part of a global security system.

Looking the importance of energy for the quality of life and life in general, it is necessary to emphasize the principle of social orientation of energy security for both individual countries and the world at large.