

Major risks associated with energy sector
Gabrielyan O. (Russian Federation)
Основные риски, связанные с энергетическим сектором
Габриелян О. Р. (Российская Федерация)

*Габриелян Ованес Раичевич / Gabrielyan Ovanes – бакалавр экономики,
кафедра макроэкономического регулирования,
Финансовый университет при Правительстве Российской Федерации, г. Москва*

Abstract: in this article, I examine the main risks in the energy sector in Russia and the main challenges that the Russian energy sector is currently facing.

Аннотация: в этой статье я рассматриваю основные риски энергетического сектора России и основные проблемы, с которыми в настоящее время сталкивается российский энергетический сектор.

Keywords: challenges, facing, main risks, economy, energy sector.

Ключевые слова: проблемы, сталкиваться, основные риски, экономика, энергетический сектор.

The main external challenge for Russia is tougher competition on foreign energy markets. In the future, it is persistent competition for retaining and increasing share of the key traditional and new energy markets.

Particular attention should be paid to the internal conditions for the implementation of the Strategy. The global financial and economic crisis led to a slowdown in the medium-term growth of the Russian economy. If in 2000-2008 the average GDP growth was 6.9 %, and 4.7 % in 2013. The growth rate fell to 1.3 % due to the increased long-term structural and institutional constraints of the Russian economy. Due to these trends, even on the base of Energy Strategy of Russia ES-2035 according to the innovative scenario (based on the forecast of long-term socio-economic development of the Russian Federation for the period up to 2030) the average annual growth rate will amount to 3.8 % in the 2016-2035 and according to the conservative risk scenarios it will be even lower (2.8 %).

The main targets of interaction of Economy and Energy for the period to 2035 include reducing the dependence of the Russian economy from Energy primarily due to the rapid development of innovative low power sectors and the implementation of technological energy saving potential. By 2035, the proportion of low power fields (machine building, light industry, food industry, etc.) in the gross domestic product will increase by 1.5 - 1.6 times for the same reduction of the share of energy-intensive raw materials industries.

While the economic growth target is 2.5 times, the primary energy consumption in Russia will increase by only 25 - 27 percent. At the same time the highest growth rates will rise for electricity and motor fuel demand (1.45 - 1.55 times over the years 2016-2035); primary energy consumption per capita will increase for the 2016-2035 on 30 % and 57 %, which will significantly improve work of electric power in the country.

The main internal challenge is the need for a deep and comprehensive modernization of the Russian fuel and energy, overcoming the high wear of a significant part of infrastructure and production facilities, technological backwardness of the Russian fuel and energy level of the developed countries, increasing production of high value-added energy (light oil, gas fuel, oil products and gas chemistry).

The need for an adequate response to the most important internal and external challenges forms the goals, objectives and a system of strategic targets of the Energy Strategy of Russia.

The aim of the Strategy is to create an innovative and efficient energy sector for sustainable economic growth, improving the quality of life and promoting the strengthening of the external economic position of the country.

This goal is specific in the key tasks of the Energy Strategy:

1) Modernization and development of energy (oil refining complex modernization, Unified Energy System, the development of «smart grids», decentralized generation, comprehensive modernization of heating systems, etc.).

2) Improvement of the energy efficiency of the economy.

3) Development of domestic energy infrastructure (overcoming the traditional imbalance in favor of export projects and export infrastructure).

4) Development of the internal energy market (reduction in the degree of monopolization, improving the effectiveness of regulation, the development of competition and stock trading).

5) Increase the efficiency of reproduction reserves, mining and processing of energy resources to meet domestic and external demand.

6) Increasing the availability and quality of power products and services (through the introduction of technology standards, reducing costs of energy companies, effective government regulation, infrastructure modernization).

7) Increase of the flexibility and diversification of exports (to enter new markets and develop new export routes, as well as new export products).

8) Increase of the competitiveness of energy companies in foreign markets.

9) Introduction of principles of sustainable development (social and environmental responsibility, the use and development of human capital for innovation, and energy efficiency) in the management of energy companies and state regulation of the energy sector.

It should be noted that the central idea of ES-2035 is a transition from a resource-to-resource Innovative Energy Development, drawing on the full use of domestic resources and innovative potential due to the formation of long chains of technology with their innovative technology saturation.

Resource-innovative development creates multipliers for economic growth through the dissemination of innovation in the country, the modernization of the technology used and the restructuring of the mining and processing industries. It must be the result of synergy of the institutional environment, infrastructure and innovation.

The slowdown of the Russian economy reduces the expected amount of domestic energy demand and significantly tightens the requirements to improve the efficiency of the energy sector, especially the reduction of operational and investment costs. The most important priority in these conditions becomes a limitation of domestic wholesale prices for key types of energy products and services to maintain the competitiveness of the Russian economy, and not due to underfunding of the energy industry, but at the expense of internal resources in order to improve efficiency.

As a result, the share of energy costs in total spending in the economy is expected to reach no more than 9 % over the forecast period.

Another important aspect is to improve the reliability of power supply of the population and the expansion of the range of energy services. As a result, the share of fuel costs and energy in household spending is expected to reach no more than 7 % over the forecast period.

It is important to emphasize that effective internal energy infrastructure should become the core competitiveness of all sectors of the Russian economy, create favorable conditions for the integration of regions of the country to encourage the placement of consumption centers and linking all the raw materials and processing industries. Priority development of domestic energy infrastructure leads to the transformation of the role of energy in development of the Russian economy from the «engine of development» to «enabling infrastructure» that provides creation of conditions for development of the Russian economy, including its diversification, increase in technological level, minimizing infrastructure constraints. The energy sector should contribute to improve the quality of life of the citizens and the reproduction of the human capital by providing energy products and services for socially affordable prices, sustainable reproduction of highly qualified personnel, as well as facilitate the transition to a new model of spatial development, which is based on a balanced development and a high availability of energy and transport infrastructure.

So the development of Russia's energy sector faces a time-varying external and internal risks. The main of them are the following:

1) the deterioration in the situation on global energy markets;

2) the delay in the development of the Russian economy;

3) the delay or failure of the implementation of programs of investment and innovative development of major Russian energy sector as a result of the lag in the formation of a coherent institutional framework in the energy sector in Russia.

The implementation of the whole complex of risks demonstrates a possible departure from the innovation scenario and the transition to a conservative scenario, which envisages reduction of Russia's GDP growth by 20 % by 2020 and 45-50 % by 2035 compared with an innovative scenario.

Implementation of external and internal threats to the development of Russian economy and energy now seems to be very likely. However, the strategies should adopt the targeted innovative scenario, because the backlog from it is inexpensively corrected with the slowing implementation of energy programs and projects, and the orientation of the long-term forecast for the slow development of the fuel and energy sector is fraught with very great damage - up to the loss of the export niches and direct deter economic growth shortage of generating capacity.

The main challenges that the energy sector in Russia is currently facing are the following:

- Depletion of gas fields in the traditional area of Nadym-Pur-Taz fields of the Tyumen region and the need to develop new gas production centers on the Yamal Peninsula, the shelf in the Arctic zone, Eastern Siberia and the Far East (most of the latter are characterized by high production and transportation costs).

- Technological backwardness in all stages (production, transport and processing).

- Imperfection of existing tax and price systems, the lack of liberalization of the internal market, as well as insufficient development of stock trading and pricing mechanisms.

- Transit risks associated with the export of gas to Europe.

- Lower sales of Russian gas in the European market because of the sanctions.

- Slow progress of relations with the Chinese gas market (pending negotiations on price and the choice between the eastern and western routes, as well as the uncertainty regarding the timing of the relevant projects).
- The high cost of the majority of export projects that put Russia in a vulnerable position due to the increasing competition in export markets.
- Reduction of promising niches for Russian gas exports due to increasing global energy efficiency and development of renewable energy and unconventional gas resources.

To cope with these problems, the key strategic priorities of the state in the gas sector, as set out in official documents, the following:

- To reduce the over-dependence on gas, as well as to ensure efficient energy balance (which includes a reduction in the share of gas in domestic energy consumption structure) in order to Russia's energy strategy is to reduce the share of gas in the fuel mix from 54 % to 46-47 % in 2030 [1].
- To improve the efficiency and cost of gas is necessary to limit the growth in demand for gas.
- It is necessary to effectively develop existing fields and to start the development of new fields in order to compensate for the drop in production volumes.

References

1. *James A. Baker 3. Geopolitics of Russian Natural Gas: Harvard University's Belfer Center and Rice University's Baker Institute Center for Energy Studies, 2014. 18 p.*