POLICY OF ENERGY SECURITY AND CREATION OF ENERGY HUBS (CHALLENGES AND PERSPECTIVES IN GEORGIA)

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Abstract
The article introduces energy security policy as a new functional direction of Europe, including Georgia. The prospects of designing and implementing the energy hub policy in Georgia in accordance with the requirements of the European Union are analyzed The Russia-Ukraine war and the sanctions imposed on Russia raise the issue of European energy security and the search for new alternative routes, as the problems of transit of energy resources in the practice of EU energy diplomacy are increasingly aggravated. So far, the European Union has focused on creating energy security and national hubs in many directions, including Georgia as the hub of the South Caucasus and Caspian regions. Due to its geographic position, Georgia today has a chance to become an electric power center. For this purpose, the country should use the advantages of the transit country. It is to become a power transformer and transit country. The functioning of the Transcaucasian power node of Georgia will be significantly strengthened by the implementation of the project of the high-voltage transmission network at the bottom of the Black Sea. Based on the research, recommendations have been developed for short and long term periods.

Keywords: Energy security, energy integration, energy hub, energy policy of Georgia.

JEL Classification: *Q40, Q43, Q48*

I. INTRODUCTION

In recent years, the importance of energy security between countries has become extremely relevant and can be said to have reached a political dimension. For more than ten years, the European Union has perceived dependence on Russia as a security challenge.

The Russia-Ukraine war and the sanctions imposed on Russia put on the agenda the issue of European energy security, the search for new alternative ways and the need to develop a unified approach to solving energy problems and energy security.

The issue of ensuring energy security largely depends on the diversification of markets and the creation of energy hubs. The success of this process depends on the flexibility of energy diplomacy, which is a new tool of modern economic policy.

In the conditions when the sources of traditional energy resources are almost exhausted and new resources are always needed to meet production requirements, the most economically developed countries are trying to obtain guarantees of access to resources. At the same time, growing competition in the field of energy poses new challenges for global security.

It is also important to emphasize that EU companies own 40% of patents for renewable technologies. Member States intend to implement a "clean energy" transition policy in order to maximize the use of technological innovations while maintaining the stability of energy supply and the social value of the reforms. As a result of the review of the institutional aspects of EU energy diplomacy, it can be concluded that in the field of energy diplomacy, extensive experience has been gained in the development of various documents at Union level.

The activities of the European Union in the field of energy security and the creation of energy centers can be assessed positively, but there are still a number of challenges in shaping the energy market in the European Union, such as B. increasing dependence on imports; diversification issues; instability in energy prices; growing global

demand for energy resources; security risks for production countries and transit countries; the growing threats of climate change; Slow advances in energy efficiency; problems related to increasing the share of renewable energy sources; The need to increase transparency, further promote the integration and unification of energy markets.

The coordination of the energy sectors of the EU countries is not at an adequate level today. The question of uniform regulation of their energy policy remains open.

The European Union does not have a common European infrastructure. Many power grids and gas pipelines are built according to national targets and are not closely interconnected. The lack of access to the common European market therefore does not allow investors to invest in energy infrastructure. Much depends on the position of Germany as the main actor of the European Union, which considers the full implementation of the common market for energy sources necessary, but should do so in view of the energy structure of an individual country, the right to a free choice based on its actual capabilities hold true.

While the share of renewable energy sources is increasing and the success of the European Union in this area is undeniable, they still cannot completely replace traditional energy sources and that is the problem of unconventional energy (Nouicer and Rossetto 2020).

In the practice of energy diplomacy in the European Union, problems related to the transit of energy resources are becoming more and more frequent. A significant part of the energy resources supplied to the European market crosses several national borders. It is no coincidence that in July 2015 the Council of the European Union identified diplomatic support for the Southern Gas Corridor as a top priority for the implementation of the action plan needed to diversify sources, suppliers and routes. South Caucasus and Central Asia. The strategic potentials of the eastern Mediterranean, the Middle East, North and South America, Africa and Australia were highlighted.

As a result of Russia's intervention in Ukraine, the issue of energy security became even more acute. The issue of transit of energy resources from Russia was still problematic. Russia used energy as a tool to influence Europe, which is why there was no unanimity in the policy of energy relations with Russia. The largest importers of Russian natural gas, such as Germany and Italy, were interested in continuing cooperation with Russia, which was reflected in their supportive attitude towards Nord Stream-2 and South/Turkey Stream. If “Northern Stream 2” were to be implemented, Germany would obtain gas directly from Russia, bypassing third countries, and become Europe's natural gas hub. In case of realization of "Northern Stream-2", Germany would receive gas directly from Russia, bypassing third countries, and would become the natural gas hub of Europe. However, as already mentioned, the projects related to these gas pipelines were frozen at the beginning of the conflict with Ukraine and not continued.

II. METHODOLOGY

Works by local and foreign scientists, Ministry of Economy and Sustainable Development, as well as various organizations' studies and reports were used as a theoretical basis for research and variety of laws, government decrees and orders and the publications of the National Statistics Office of Georgia were used as an informational basis.

III. GENERAL ANALYSIS

So far, the European Union has focused on energy security and the creation of national hubs in many directions, including Georgia as a staging point for the South Caucasus and Caspian region where oil/gas pipelines from these regions can converge.

During the development of energy security and national energy hubs, it is important to take into account the differences between states in terms of energy sources. For example, nuclear energy is very important in France (80% of all energy produced in the country), Belgium (75%) and Slovakia (62%). Renewable energies are the main source of energy in some countries. This figure corresponds to more than 90% of the energy produced in the country in Malta, Latvia, Portugal and Cyprus. Solid fuels are important for Poland (78%), Estonia (67%), Greece and the Czech Republic (59%). The most important energy source in the Netherlands is natural gas (83%). Crude oil is the main source of energy in Denmark (47%) and the UK (41%). (Energy statistics - an overview 2021).

The main directions of energy policy of EU countries are reducing dependence on energy resources imported into the country, as well as increasing electricity production at the expense of renewable energy sources.

Energy security policy has become a new functional direction of Europe. The EU consumes a fifth of the world's energy production, but has relatively small reserves of its own. The European Union is the world's largest energy importer. 54% of the energy consumed is imported.

Currently, there is a trend towards increasing economic competition in the global energy market, which requires constant regulation of the economic course of countries. EU countries depend on multiple energy suppliers and are therefore vulnerable to supply disruptions.

The current international situation makes it clear that Europe's future prosperity depends on the success of supranational institutions in solving two key energy problems, such as providing reliable and affordable energy and reducing export dependency.

The priorities of EU energy diplomacy are strengthening and developing cooperation and dialogue in the energy field with energy producing and transit countries, strengthening the global energy architecture and supporting multilateral initiatives within the EU, as well as strengthening the pan-European potential of energy diplomacy.

In the European Union's common energy policy, the priorities of which are to some extent correlated with national priorities in this area, a number of issues are given close attention, including the problems of finding reliable sources of energy. Diversification of routes for the transportation of hydrocarbon raw materials, energy efficiency and development of production of renewable energy sources, development of new technologies and energy security.

Therefore, in order to ensure energy security and sustainable development, EU countries need the development of energy hubs that are in line with common public objectives and collect energy carriers from different sources, assuming the share of renewable energy continues to grow.

Economic security of Georgia, based on energy security, is related to activation of the Georgian transport corridor function, energy diplomacy with decision-making countries and maximum use of opportunities. All this, firstly, will allow independence from Russia, on the other hand, the country will have additional income, jobs will increase, etc.

It is important for Georgia to promote the development of energy corridors through Georgia, including direct access to European energy markets. It is necessary to actively work to attract more international cargo to the transport corridor passing through Georgia, as well as to create and expand new transport corridors.

Due to its geographical position, Georgia can play an important role in solving the planned energy integration tasks in the Caucasus region (Black Sea Basin). This implies the exchange of electricity between these countries and the use and exploitation of hydropower resources of Georgia. In the current situation, the exchange of electricity from the Georgian power system to the neighboring power systems is carried out through transit power lines with a voltage of 500, 400, 330 and 220 kV. Electricity exchange takes place: from Georgia to Russia, Turkey, Azerbaijan, Armenia and vice versa; Also from Russia to Turkey, from Azerbaijan to Turkey; The transit lines of the transmission system of Georgia serve to fulfill these tasks, but their capacity is limited by the permissible operating parameters of the country's energy system.

Georgia has domestic production potential towards electricity. Especially in the summer months, Georgia can generate as much electricity as is needed for the country's own needs and also export it. Otherwise, Georgia mainly imports electricity from Azerbaijan and Russia.

The trend of recent years associated with the decrease in the share of imported electricity from Azerbaijan and the increase in the share from Russia will have a negative impact on the economy, as there is a risk that Georgia's dependence on Russia will increase.

Table 1. The share of electricity imported to Georgia from Azerbaijan and Russia in 2018-2021

year	2018	2019	2020	2021	2021 (Jan-Sep)
Azerbaijan	63446.50	55730.70	36397.26	28931.59	9675.03
%	83.7%	70,97%	56,42%	60,37%	27,8%
Russia	9333.60	22797.83	14553.20	11959.00	14834.62
%	12,3%	29,03%	22,57%	24,95%	42,68%
Total import of electricity	75,774.0	78,528.5	64,514.6	47,924.0	34,745.7

Source: Data Calculated from the National Statistical Service of Georgia

Georgia has the potential to export electricity to neighboring countries. For Georgia, which is connected to Greece, the Turkish market is particularly attractive, and of course it is desirable to also use the European market, which allows connecting with Romania via the Black Sea and exporting electricity to the European market. According to expert calculations, just by exporting electricity to the European market, the country has the opportunity to accumulate billions of dollars in taxes in the form of taxes, of course, in addition to increasing economic activity and reducing unemployment (BM. GE).

Thus, by improving energy security, Georgia has the potential to increase the country's economic security and well-being, which of course is possible through the implementation of rational economic diplomacy.

Today, Georgia has a chance to become an electric power center like never before. Therefore, the country should take advantage of being a transit country. It is to become an electricity converter and transit country. The excess electricity in Azerbaijan, especially the base electricity generated by the thermal power plants, should be brought to Georgia and converted by the regulatory hydroelectric power plants in the country into electricity that can be sold at a much higher price on the European market, i.e. H. electricity at peak times. These opportunities and advantages should be used as extensively as possible in the future.

The function of the Transcaucasian electric power hub of Georgia will be significantly strengthened by the implementation of the project of the high voltage transmission network on the bottom of the Black Sea. In this regard, the involvement of the World Bank in the global project (at any of its stages) has become important. This also envisages reducing energy dependency on the Russian Federation, as the Black Sea cable will allow Georgia to connect the region's energy system to the European Union's system and vice versa. The project will be of great importance for exporting electricity generated in Georgia to the EU market. It will also be a source of transit revenue for Georgia. This cable will also have another purpose. The infrastructure allows for the installation of a fiber optic cable, giving us an additional direct opportunity to set up a telecom/internet channel. It is difficult to overestimate this opportunity, which provides the opportunity to create an additional direct channel of telecommunications traffic between Southeast Europe and the South Caucasus/Central Asia.

According to experts, the involvement of the World Bank in a global project of this magnitude at any stage is proof of the seriousness and good prospects of the project. The idea of a high-voltage power transmission grid on the bottom of the Black Sea was discussed years ago, but for certain reasons, including the high cost of the project, it was not started at the time. This time this is the most important project for Georgia. It envisages the construction of a 1,200-kilometer high-voltage transmission network at the bottom of the Black Sea, which will connect the electrical power systems of Georgia and Europe. Together with the World Bank, governments as well as international financial institutions and large energy companies will be involved in financing the project. Which is interesting from a purely economic, geoeconomic and general geopolitical point of view. For example, Georgia is providing $20 million for geological research in the Black Sea.

IV. CONCLUSIONS AND RECOMMENDATIONS

In the case of the implementation of the already real Black Sea submarine cable project, the high-voltage infrastructure will be expanded with a 500-kilowatt transmission network with a capacity of up to 1000 megawatts, which is an important step in terms of both energy independence and energy security. Energy dependency on Russia will be reduced as the Black Sea cable will allow Georgia to connect the region's energy system to the European Union's system and vice versa.

The new transmission line will be equally interesting for both sides, both for the energy system of the European Union and for our region, both in terms of receiving and outputting energy. Nowadays everyone is looking for cheap and green energy. This trend is already irreversible. Therefore, a practically guaranteed market opens up both for our future hydropower and for the future energy of Azerbaijan. The other side of the problem is when we talk about a new import option. Obviously, import diversification is one of the main tasks of our energy policy.

Both Europe and Asian countries will be interested in building new solid and extensive electricity connections and of course it will play a role and make things easier if there is already a high voltage transmission network in the Black Sea. Perhaps we should see the same infrastructure at the bottom of the Caspian Sea. The possibility of connecting the energy systems of Azerbaijan and Kazakhstan seems undeniably attractive. Analyzing the topic from this point of view, the already very interesting project gains even more interest for a number of energy stakeholders. But before that, the project of the high-voltage transmission network at the bottom of the Black Sea should see the light of day, its launch should become an impetus for the energy development of Georgia, and thereby our country should take on the function of the Transcaucasian electric power center. At the same time, we must not lose sight of the fact that our country is a participant in the "Silk Road" project of the century. Therefore, within the framework of the One Road, One Belt project, Georgia has the most important role from the point of view of the transit function. Of course, when we talk about the transit function, we don't just mean the arrangement of the road or rail infrastructure, but we should also think about increasing the transit role of electricity on this global scale. Therefore, we can say that in addition to the logistical importance, Georgia will also become a kind of gateway between Asia and Europe in terms of energy.

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