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## СУЧАСНІ ПРОЕКТИ ТРАНСПОРТУВАННЯ ЕНЕРГОНОСІЇВ У КОНТЕКСТІ ГАРАНТУВАННЯ ЄВРОПЕЙСЬКОЇ ЕНЕРГЕТИЧНОЇ БЕЗПЕКИ

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Комплексно досліджено модерні проекти транспортування енергоносіїв до європейських країн, загроз та викликів, пов'язаних з імплементацією, як для держав-членів Європейського Союзу, так і для України. Актуалізує це дослідження той факт, що наявність природних ресурсів розглядають окремі країни, зокрема Російська Федерація не як товар, а як суттєвий політичний важіль впливу на ті європейські країни, які є сьогодні залежними від постачань газу з боку Росії.

Актуалізує комплексне дослідження політичного виміру реалізації європейських проектів транспортування енергоносіїв сукупність як об'єктивних, так і суб'єктивних чинників глобального, регіонального та локального вимірів, реагувати на котрі змушена кожна держава-член ЄС, зокрема і Україна та, які впливають на хід реформ в енергетичній сфері.

Зроблено висновок про те, що Європейський Союз є лідером у світовій відновлюваній енергетиці і має намір бути флагманом у створенні та впровадженні сучасних і інноваційних енергетичних технологій. Щодо козирна карта Росії проти України, і вони вдало нею користуються, адже розуміють, що залишившись без транзиту їхнього газу наша держава щорічно втрачатиме близько \$2 млрд. Будівництво цих газопроводів ставить Європу у пряму залежність від Росії ще на 20–30 років. І РФ надалі продовжуватиме маніпулювати інтересами та цілями країн Європейського Союзу.

Безпека постачання енергоносіїв є вкрай актуальною і для України, особливо в контексті чергової енергетичної кризи з боку РФ у кінці лютого 2018 р. Враховуючи сучасні виклики, які постають перед нашою державою, Україна має вибудувати систему власної енергетичної безпеки, враховуючи пріоритети національних інтересів і максимально покладатись на власні сили.

*Ключові слова: енергоносії, проекти транспортування газу, енергетична безпека ЄС, енергетична незалежність, гібридна війна РФ.*

### MODERN ENERGY TRANSPORTATION PROJECTS IN THE CONTEXT OF EUROPEAN ENERGY SECURITY PROTECTION

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There has been conducted a complex study of implementation of a modern energy transportation projects to European countries, as well as threats and challenges that are carried out for both European Union member states and

Ukraine. The mentioned issue has become urgent due to the fact that the availability of natural resources is considered by individual countries, in particular, Russia, not as a commodity, but as a significant political leverage for the European countries that are currently dependent on Russian gas supplies.

The author highlights political dimension of the implementation of European energy transport projects as a combination of both objective and subjective factors of global, regional and local dimensions, which influence the process of energy reforms of each EU member state, including Ukraine.

It has been concluded that the European Union is a leader of renewable energy in the world and intends to be a flagship in the creation and implementation of modern and innovative energy technologies. As for the new gas supply projects, it is worth noting that the construction of the above-mentioned Streams is, first of all, Russia's trump card against Ukraine, and Russians use it well, because they understand that remaining without transit of natural gas, Ukraine will lose about \$ 2 billion annually. Construction of such gas pipelines puts Europe in direct dependence on Russia for another 20–30 years. And Russia will continue to manipulate the interests and objectives of the European Union.

Security of energy supply is very relevant for Ukraine, especially in the context of the next energy crisis at the end of February 2018. Acknowledging current challenges that face our state, Ukraine must build its own energy security system taking into account the priorities of national interests and maximizing building upon its own potency.

Effective implementation of the energy efficiency programs will enable Ukraine to build an independent energy policy and will improve the domestic economy in the international arena.

*Key words: energy carriers, gas transportation projects, EU energy security, energy independence, Russia's hybrid war.*

The global challenges of today, as well as change in the internal political and economic situation of EU Member States require specifying the priorities of these countries in the energy sector, which has always remained the key instrument in the light of energy benefits and dependencies of the Member States of European Community. The global dimension indicates primarily on solving global problems in the energy sector. It is about the common position of both EU member states and Ukraine regarding energy security in the context of overcoming the global problem of climate change.

In its turn, regional dimension demonstrates the desire of the EU to implement a number of projects, which are fixed in the EU Energy Union, established in 2015 in order to expand cooperation with countries that are important for the development of the EU energy sector, its security and supply stability. This is primarily about gas supply projects. In this context, Ukraine as a member of the Energy Community Treaty may be considered as a partner for the implementation of a particular European projects.

Next, the local dimension of the challenges in the energy sector is related to Russian hybrid war against Ukraine, the consequences of which are already tangible for our country. In support of this, since the critical infrastructure objects have been suffered, the resource base of the fuel and energy complex has been reduced, and as a result, economic ties between economic entities have been violated. An important step towards energy independence of Ukraine was made on November 25, 2015 – the day when government of our country decided to stop buying Russian natural gas.

It is important to note that nowadays there is no comprehensive research that fully reflects the political dimension of the implementation of modern energy transportation projects to European countries and the

influence of manipulative strategy of the Russian Federation in ensuring energy security.

In the Ukrainian scientific literature many researchers studied the issue of energy carriers planning. Among them, S. Bila [Біла 2016: 179–182] raised problem of strategic priorities for the formation of a single European energy space. Also O. Ivasechko and L. Dorosh [Івасечко, Дорощ 2017] prepared a SWOT-analysis of Ukraine's energy security. Besides of that, Russian scientist A. Laktyonov in his investigations focuses on the functioning of "North Stream-2" modern energy project [Лактионов 2016]. Equally important is the study of K. Markevych and V. Omelchenko who in the Razumkov Centre analytical journal researched the global energy trends through the prism of Ukraine's national interests [Маркевич, Омельченко 2016: 118].

Important information content is also highlighted by the European Union's regulatory acts, which fix the provisions on energy security issues, mainly the "European Union-28" [European Union-28: Balances for 2014 2014]. In addition, an important document is the Energy Security Strengthening Plan for Ukraine until 2020 [Енергетична безпека України 2020 2011: 25], which sets out the state of challenges in the energy sector of Ukraine in the conditions of hybrid war with Russia in the East of Ukraine, as well as possible scenarios for its enlargement. Particular attention is paid to the EU energy directives, which contain information on the reform of Ukrainian gas market [Дяченко 2013]. In addition, the National Institute for Strategic Studies reveals the topic on diversification of sources of energy supplies [Волович 2009].

Relevance of research of both the EU and Ukraine energy security in the context of implementation of modern energy transportation projects in Europe has led to the emergence a number of articles in periodicals such as: Mind

News [Долінчук 2017], Finance.UA [Лактионов 2016], Integrites International law firm [“Газпром” побудує ще одну лінію газопроводу 2018], East European Gas Analysis [Consulting services on natural gas sector of Russia 2014], Weekly “Mirror of the Week” [Гончар 2014] and Express.UA [Ярошук 2017].

**The purpose of the paper** is to substantiate the peculiarities of implementing the political dimension of energy supply projects to European countries.

The energy policy of the European Communities permanently experienced changes. In particular, these changes were conditioned by the need to decarbonize energy, solving the problems of climate change and the related problem of global warming. Given this, in the early 2000s, the EU's energy security approach was transformed because of transition to renewable energy sources, which have become popular nowadays and most of them are competitive with fossil fuels in a number of countries [Маркевич, Омельченко 2016: 118].

Today four EU energy packages deserve special attention to ensure the energy security of the Association. In determining the nature and content of the adopted energy packages, it should be noted that this is a set of specific directives of the Association for the supply of gas. Thus, emphasizing the Directive 98/30/EC (“First Gas Directive” or “First Energy Package of the EU”) it should be noted that it initiated practical measures for liberalization the national gas markets, directed at all levels of extraction and sale gas cycle. In addition to that, it has been initiated a permanent monitoring of the implementation of these measures and regular reporting by the European Commission on the course of liberalization (Monitoring and reporting of EC funded projects) [Дяченко 2013]. Despite a number of positive aspects of the First Energy Package of the EU, it is worthwhile, in our opinion, to highlight its shortcomings, first of all: ignoring potential threats to market liberalization; low level of competition; lack of protection of consumer rights; the existence of legal conflicts in connection with the requirement to separate functions of extraction, supply and transportation, on the one hand, and ownership – on the other etc.

The Second EU Gas Directive stipulates that separation of the functions of extraction, supply and transportation does not imply the obligation to separate the ownership rights to the assets of gas transmission system from the vertically integrated company. But despite of that such provision of the policy document did not eliminate legal conflict mentioned above, and implicates a significant influence of powerful European energy concerns on governments of the EU member states, and therefore the European Parliament is forced to abandon the idea of full separation of functions through withdrawal of assets [Дяченко 2013].

However, the disadvantages were also preserved in the Second Energy Package, and reflected in the fact that the

level of competition again remained insufficient and, despite the growth of prices, gas markets developed slowly.

Progress was made in 2009 with implementation of the Third Energy Package of the EU, which identifies ways for creation a common European energy space and establishes new rules on EU energy market [Біла 2016: 179–182].

At the end of 2016 “The Fourth European Railway Package” was implemented, according to which the Commonwealth could make transition to a new energy future. The key provisions of the 4th energy package are: firstly, the EC proposes to cancel renewable energy incentives, in particular the right to first include such facilities in the power grid. The position of the official Brussels is that it is time to unify the right of access to the market for all manufacturers and technologies, since the right of priority inclusion of renewable energy resources to the grid distorts competition. Secondly, it is expected an increasing attractiveness of consumers in the energy market. Thirdly, the European Commission proposes to increase energy efficiency [Дяченко 2013].

The peculiarity of EU energy security at current stage is the adoption of the EU Energy Strategy for 2010–2020, which is characterized by a focus on solving internal organizational problems and a limited ability to withstand the active expansionary energy policy of third countries. It has been identified five key priorities, which in one way or another have an impact on Ukraine: *Energy saving* as a prerequisite for reducing energy consumption and, consequently, passive enhancement of energy security. *An integrated energy market* that should have been covered by all EU member states by 2015, and which can join the countries of EU Energy Community, which will increase the role of markets compared to bilateral agreements. A common EU approach on energy issues may have a positive impact on energy relations of Russia and Ukraine, if our country will maintain membership in the Energy Community. Leadership in energy technologies and innovations aimed at further enhancing the EU's energy independence by improving its energy efficiency. Ensuring consumers' interests through reforms in pricing, connecting consumers to networks and transparently accrue cost of services [Енергетична безпека України 2020 2011: 25].

Today, for EU member states, natural gas is considered to be one of the most environmentally friendly energy sources, especially when generating electricity. The ambitious plans of Europe to reduce CO<sub>2</sub> emissions by 80 % till 2050, compared with 1990 levels, suggest that natural gas may become a bridge fuel to achieve this [European Union – 28 2014].

German Institute for Economic Research in 2014 unveiled the results of a 20-year (1993–2012) study, which captures data on the dependence of European countries on the supply of Russian natural gas. According to the study, in 2013

the most dependent on Russian gas were CIS countries and Eastern Europe (Czech Republic, Poland, Slovakia, Hungary, Bulgaria and Romania), as well as Finland and Estonia. In addition, there were several countries dependent on Russian gas by 100 % [Маркевич & Омельченко 2016: 118].

Today, the Russian Federation is actively involved in geopolitically motivated and rather risky projects for transportation of natural gas in order to avoid transit through Ukraine and, to achieve that, offers to Europe several alternatives to the Ukrainian GTS, the implementation of which is very expensive, technologically complex and economically unjustified.

Among all the gas pipelines that transport gas from Russia to Europe, the following should be highlighted: “Blue Stream” – an active gas pipeline between Russia and Turkey began to operate in 2003; “Nord Stream” is the first branch of an existing gas pipeline between Russia and Germany. Gas supply started in 2011; the “Nabucco” pipeline was a proposed natural gas pipeline from the Turkish-Bulgarian border to Austria, which was finally aborted in June 2013; “Yamal-Europe” is a gas pipeline passing through the territory of Russia leading to Poland, Belarus and Germany; the Urengoy-Uzhgorod is a gas pipeline that transports gas from Russia to Uzhgorod, and then to Central and Western Europe; South Stream is a planned project that was aimed to connect Russia with Bulgaria, and then through the Balkan Peninsula with Italy and Austria. The project was cancelled by Russia in December 2014 following obstacles from Bulgaria and the EU, the 2014 Crimean crisis, and the imposition of European sanctions on Russia [Consulting services on natural gas sector of Russia 2014].

In the political realities of today, the 3 following modern energy transport projects to European countries deserve special attention: North Stream 2, Baltic Pipe and Turkish Stream. In our view, it is advisable to analyze the advantages and disadvantages of commissioning these gas pipelines both for the energy independence of the EU member states and for Ukraine, whose gas transmission system is inextricably linked with the energy security of European countries.

Under the initiative and promotion of Russia it is possible to implement a modern energy transport project to Europe bypassing Ukraine – Nord Stream 2. This gas pipeline aims to connect Russia with Germany in order to weaken EU energy security, which will trigger a significant reduction in gas volumes transported by existing routes. Consequently, North Stream 2 has major threats and challenges for Europe, in particular: 1) The draft is contrary to the provisions of EU energy legislation (in particular, the Third Energy Package) and the EU competition law, precisely regarding inconsistency with the requirements for transportation and selling of natural gas; 2) Gas pipeline is not a new route for natural gas supply, as it does not provide EU

access to new sources of supply. 3) It creates a precedent to ignore the interests of most EU countries in favor of Russia and the financial interest of lobbyist project groups in the EU; 4) The project poses a threat to EU unity and therefore to EU's plans and priorities for the implementation of pipeline development strategies for the supply of natural gas from alternative sources (Caspian region, Middle East, USA), increasing LNG supplies to the European market, and the development of alternative energy; 5) It creates overcapacity in Europe only for Russian gas; 6) The project increases EU dependence on imports of Russian gas; 7) High cost, which in the end will be paid by European consumers through the price of gas [Лактионов 2016].

Despite the fact that the project does not have a construction permit from the European Commission, it can be implemented in light of its political support and the complete neglect of legal aspects. In addition to intensifying talks with European countries on the construction of the Nord Stream-2 gas pipeline, the presidents of Russia and Turkey decided to revive the Turkish Stream project, which is contrary to the norms of European antimonopoly legislation and is analogous to the project of the South Stream gas pipeline, and Russia was forced to abandon its construction in 2014 [Лактионов 2016].

Nowadays Germany and Austria are the most active supporters of the Nord Stream-2 project. This is due to the fact that both countries see economic and political interests in the construction of such gas pipeline. First, Germany will receive gas from Russia bypassing transit routes. As a result, the official Berlin will have control over the distribution of Russian resources in Europe and become main gas hub and transit country, and thus will be able to influence prices. Secondly, it is likely that the price of Russian gas for Germany will decrease. However, due to monopolization the price of gas for other countries will grow, and Gazprom will have a significant leverage effect on the economy and political process in the country. Thirdly, German companies will take a role of Polish and Slovak representatives and will not be consumers, but sellers. Fourth, Germany will strengthen its strategic importance in Europe as the largest economy and powerful political center. So, we may conclude that the North Stream 2 has only geopolitical goals and has more disadvantages to EU energy security [Ярошук 2017].

Due to manipulation policy of Russia and individual leaders of the EU member states, in particular Germany and Austria, such states as Poland and Denmark also decided to “bypass Russia” and started jointly cooperate on construction of Baltic Pipe new gas transmission pipeline, connecting gas transmission systems of mentioned countries. Such project is an important step towards energy independence, as it will save Poland and Denmark from importing Russian gas,

which will strengthen energy security of both countries, allowing Poland to implement a project of import Norwegian gas to Ukraine.

The key objective of the Baltic Pipe project lies in ensuring import of energy from Norway, which will allow Denmark and Poland to increase pressure on Russia and complicate the ability to manipulate in the supply of energy from Russian authorities, as a response to sanctions.

Diversifying the supply of liquefied natural gas through direct access to natural gas fields will significantly improve the energy security of Poland, Denmark, as well as countries in the Baltic and Eastern Europe. The Baltic Pipe project will make a significant contribution to the creation of an internal European energy market. It develops in consistent with the goals of the European Union's energy policy, in particular, such as increasing competition, integrating gas markets, improving security of supply and effective implementing the guidelines for sustainable development [Долінчук 2017].

The Russian budget is directly dependent on extraction and export of energy resources. In view of this, Russian government is still interested in supplying natural gas to European countries bypassing Ukraine. The construction of South Stream 2 gas pipeline, which had to pass through the bottom of the Black Sea from Novorossiysk to Italy, was suspended in 2014. However, on December 1, 2014, Russia's representatives made an official statement to construct a modern energy transportation project to Turkey – "Turkish Stream", exploitation of which will make possible the supply of gas to Europe. Therefore, on May 5, 2017, the construction of another flow of energy supplies bypassing Ukraine was restored. The project envisages laying two strings of gas pipeline from Russia to Turkey along the bottom of the Black Sea. The power of each of the threads of "Turkish flow" is 15.8 billion cubic meters of gas per year ["Газпром" побудує ще одну лінію газопроводу 2018].

Today, the Russian Federation builds energy strategy aimed at reducing the role of transit countries by establishing direct relations with European suppliers and weakening the possibility of forming a pan-European energy policy. Russia artificially creates problems with gas supplies to Europe and tries to slow down the price of oil, assuming that in context of reduction in gas supply to European countries, they would be forced to use more petroleum products, which could lead to an increase in demand for oil and as a result, the price for it could be raised. The second Russian objective is to push the European Union to finance construction of offshore gas pipelines, primarily Nord Stream and South Stream. By blocking gas supply, Russian government thus forces the European Union to participate in the construction of gas pipelines with the aim to avoid dependence on Ukrainian transit. In addition, in case of implementation of these projects, official Moscow intends that Ukraine will have less opportunity to participate in building of a new

architecture for energy security and solidarity in Europe [Волович 2009].

Mikhail Margelov, the head of the Russian Federation Council international affairs committee, in November 2011 expressed quite frankly about the toolkit of Russian foreign policy: "... oil and gas policy should not only be an important component, but also one of the main tools of Russia's foreign policy" [Гончар 2014].

Ukraine with the support of Razumkov Centre, jointly with the Representative Office of the Friedrich Naumann Foundation in Ukraine and with the support of Committee of the Verkhovna Rada of Ukraine on the Issues of the Energy Industry, Nuclear Policy, and Nuclear Security, has developed a strategic document "New Energy Strategy of Ukraine Until 2020: Security, Energy Efficiency, Competition" [Івасечко, Дорош 2017].

According to the mentioned document, it is important to make every effort in order to reform the energy sector of Ukraine and acquire the level of European Union's energy space in accordance with the Energy Community Treaty and other basic documents in the EU-Ukraine relations [Енергетична безпека України 2020 2011: 25].

Therefore, we may conclude that the European Union is a leader of renewable energy in the world and intends to be a flagship in the creation and implementation of modern and innovative energy technologies. Focusing on modern gas supply projects, it is worth emphasizing that the construction of the above-mentioned Streams is, first of all, Russia's trump card against Ukraine, and Russians use it well, because they understand that remaining without transit of natural gas, Ukraine will lose about \$ 2 billion annually. The construction of Nord Stream 2 gas pipeline and the Turkish Stream is a direct threat to Europe's energy independence. Consequently, Russia will continue to manipulate the interests and objectives of the European Union. The issue of implementing modern energy transportation projects to the countries of Europe has direct relevance to the energy independence of Ukraine. In view of this, Ukraine should build its own energy security system, taking into account, first of all, national interest and, at the same time, counting on its own strengths. By applying energy efficiency programs, Ukraine will be able to build an effective independent energy policy with high competitiveness, which will improve the national economy on the international arena.

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