

МІСЦЕ ЕНЕРГЕТИЧНОЇ ДИПЛОМАТІЇ У ЗОВНІШНІЙ ПОЛІТИЦІ УКРАЇНИ

Анотація

Стаття присвячена розгляду питання енергодипломатії України як вектора зовнішньої політики нашої держави. Розглядається дефініція «енергетична дипломатія» та відокремлюється від «зовнішньої енергетичної політики». Особливої уваги надано аналізу національної стратегії розвитку національної енергетики «Стратегія-2035», прийняту наприкінці 2017 року. Даний план дій передбачає збільшення внутрішнього видобутку вуглеводнів, відродження підприємств з переробки нафти і газового конденсату; модернізацію сектора генерації, відновлення магістральних ліній електропередач в напрямку ЄС; ремонт газотранспортної системи (ГТС), її часткову приватизацію та інтеграцію до загальноєвропейської газової мережі «ENTSO-G»; розвиток нафтопровідного транспорту; а також розширення виробництва ВДЕ-енергії й впровадження енергозберігаючих технологій.

Ключові слова: енергодипломатія, зовнішня політика, зовнішня енергетична політика, Стратегія, співробітництво, енергоресурси, відновлювані джерела енергії

Chala Kateryna,

Institute of international relations
Taras Shevchenko National University of Kyiv

THE PLACE OF ENERGY DIPLOMACY IN FOREIGN POLICY OF UKRAINE

Formulation of the problem. Contradictions between the availability of countries' own energy resources and their needs, the depletion of fuel and energy resources (FER) and the growing environmental problems associated with their production, transportation, processing and consumption, cause a tendency to exacerbate energy issues in human life, each individual country. As a result, the struggle for ownership of energy resources, the right to transport them, for the impact on the energy market has become today the most important factor in realizing the interests of the world, their political behavior, the basis of political and economic alliances and even the source of international conflicts.

Energy issues in the modern world play a significant role in determining foreign policy strategies in relations between states. One of the main means of implementing such strategies is energy diplomacy. Geopolitics at the same time plays the role of coordinator of diplomatic means and methods in order to establish mutually beneficial cooperation between states in the energy sector. Energy diplomacy and geopolitics are part of foreign energy policy, directly characterize the development of international energy law at the level of energy security, international energy law institutions (universal and regional organizations), energy markets, energy industries and infrastructure, world energy ecology.

The deterioration of Russian-Ukrainian relations in the gas sector (at least since the closure of gas transit in 2006) has led to the problem of bypassing (ie bypassing Ukraine) gas pipelines to Europe. The end of autumn 2019 was marked by the promotion of the issue of bypass gas pipelines to Europe. Denmark already has a permit to build Nord Stream 2 (SP-2) in its exclusive economic zone [3]. There was also a decision of the German Parliament (Bundestag) to adopt amendments to the domestic legislation of Germany on the national implementation of the updated EU Gas Directive.

Analysis of recent research and publications. The energy component of international relations and world politics is reflected in the works of such foreign

researchers as Z. Brzezinski, P. Lines, G. Kissinger, O. Rar. Such a vector of foreign policy as energy diplomacy is being studied by scientists V. Saligin, A. Safaryan, T. Zonova, I. Zhukova, I. Tomberg, A. Tekeev, S. Zhyznin, and L. Gudrych.

The purpose of the study is to highlight the main aspects of the formation and implementation of energy diplomacy in Ukraine as part of the foreign policy of the state.

Main material. The concept of "energy diplomacy" includes the practical activities of foreign policy, foreign economic and energy agencies to implement the goals and objectives of "foreign energy policy". "Foreign energy policy" means the sphere of activity of the state in international relations to protect and defend national interests due to the production, transportation and consumption of energy resources. Goals, objectives, priorities and directions of foreign energy policy are closely related to "foreign policy" [6].

The main issues that are solved with the help of energy diplomacy: problems of international transit (ensuring reliable and uninterrupted operation of transit routes); contradictions between potential transit countries in the struggle for export routes of hydrocarbon transportation; unresolved territorial disputes between countries over adjacent areas rich in energy raw materials; delimitation of rights to offshore deposits between neighboring states; solving investment problems and developing large energy projects; issues of pricing and stability of energy markets.

Many countries in the world, which are the main consumers of energy resources, are forced to import them. Thus, their national energy security depends on the situation on the world energy markets. At the moment, competition in these markets is noticeably increasing due to the high economic profitability of the industry. In order to avoid destructive and chaotic competition, as well as to ensure the energy security of individual countries, regions and the world as a whole, interstate cooperation in the energy sector is intensifying. Such interaction is the basis of energy diplomacy. Diplomacy, as a tool of foreign policy, is increasingly involved in addressing energy issues in international relations.

The development of external cooperation, in particular in the energy sector, is an extremely important factor in the functioning of Ukraine's economy. Ukrainian fuel and energy sector, given the existing capacity, has great export potential. The most important part of Ukraine's oil and gas complex is the oil and gas transportation system, which provides energy transportation to Ukrainian consumers and transits Russian gas and oil to Central and Southern Europe.

At the beginning of the last century, the basis of Ukraine's energy sector was the extractive sector - the production of various types of gas, oil, coal and lignite, peat. During this period, the formation of electricity. Thermal power stations, main power lines and distribution networks were built in Donetsk, Kharkiv and Dnipropetrovsk regions. During the Great Patriotic War, the energy infrastructure was almost completely destroyed. In the postwar period, energy facilities were promptly restored by the joint efforts of the union republics.

In the second half of the twentieth century, the main goals and objectives of the development of Ukrainian fuel and energy industries were determined:

- 1) ensuring the growing demand for energy resources from local consumers - large industrial and agricultural enterprises, the population;
- 2) the creation of routes for the transit of oil, gas and electricity in the "east-west" direction to strengthen economic and political ties between the USSR and the CMEA countries through the supply of cheap fuel and energy products, increase trade with Western Europe.

At the end of the twentieth century in Ukraine, state plans for the development of energy, electricity, gas and coal markets were adopted, but not fully implemented or not implemented for various reasons (socio-economic, political). The first national strategy for the development of national energy for the period up to 2030 was adopted in 2006. Its parameters are not current and potential needs of the economy in the Russian-Ukrainian conflict. In addition, in 2014, the configuration of the energy sector changed due to the annexation of the Republic of Crimea by Russia and the war in Donbass. As a result, this plan has lost relevance.

The new strategy was adopted at the end of 2017 ("Strategy - 2035") [9]. Its vector is directed strictly to the West. The main goals and objectives set out in this document are to increase security, energy efficiency, competitiveness of national energy, integration into the EU energy sector on the basis of European norms and rules, reducing dependence on Russia across the spectrum of cooperation. The strategy also states the political goal - the return of the Republic of Crimea to national jurisdiction.

The plan provides for:

1. Increase in domestic production of hydrocarbons.
2. Revival of oil and gas condensate refining enterprises.
3. Modernization of the generation sector, restoration of main power lines in the direction of the EU, integration into the European power system "ENTSO-E" (electricity capacity - .4 GW).
4. Repair of the gas transmission system (GTS), its partial privatization and integration into the pan-European gas network "ENTSO-G".
5. Development of oil pipeline transport.
6. Expansion of RES energy production, implementation of energy-saving technologies.

According to the Strategy-2035, in 2035 the average annual consumption of gas is expected to be 30-33 billion m³, coal - about 50 million tons, oil - 17 million tons. In order to achieve the level of self-sufficiency, the production sector can be achieved - in the twentieth century were solved larger tasks [9].

The goals and objectives of the "Strategy-2035" can be divided into two groups. The first group - technically achievable in the planned time and / or in a more remote period than stated in the document, the second group - declarative (ie implemented with a low probability).

The first group includes tasks of expanding to about the level of self-sufficiency of gas production - natural, shale, methane, coal seams and lignite, strengthening electricity ties with neighboring Western countries, development of oil and gas pipelines, modernization of heat and nuclear generation. The optimism

of the assessment is based on such factors as: (1) large natural reserves of coal and gas, as well as oil and uranium ores, (2) the availability of energy infrastructure, still retained its "framework", (3) high level of technology development, qualified personnel, (4) support for Ukraine by the United States and its key partners.

Ukrainian gas and oil transit transport services remain an important element of the country's export potential in the long run. Due to Ukraine's advantageous geographical location at the crossroads of trade routes between Europe and Asia, energy transit plays an important role in its economy and has significant potential for increasing freight traffic. It is also important to take into account the "transit" factor as an important source of strengthening the economy and, accordingly, strengthening the independence of Ukraine through integration into the economy of the CIS and Europe.

Over the past few years, there have been tendencies to reduce the volume of energy transportation by pipeline transport in Ukraine as a result of Russia's development of a strategy to bypass Ukrainian territory. An alarming symptom for Ukraine is the statement of the President of the European Commission R. Prodi on the construction of a gas pipeline through Poland and Slovakia, given their aspirations in the EU, to reduce the transit of Russian gas through Ukraine by 16 billion m³ per year [7]. Support for the proposal by individual leaders, EU officials and oil company managers indicates their concern about the Russian-Ukrainian conflict.

In the conditions of fierce competition of carriers concerning transit, the effective customs policy and strict observance of the international agreements and agreements signed by Ukraine should promote attraction of transit flows.

Ukraine's gas transportation system (GTS) is one of the most powerful in Europe after Russia. Its annual capacity is 290 billion m³ at the GTS inlet and 170 billion m³ at the outlet. The volume of transit gas in 2010 amounted to 119 billion m³. Promising projects, in terms of increasing the capacity of the GTS, are the construction of compressor stations on the main gas pipeline Torzhok-Dolyna and the construction of the gas pipeline Talne-Ananyiv-Izmail. Implementation of

investment projects to expand the GTS will increase gas transit to Europe by almost 50 billion m³ [10].

In order to prevent a decrease in the volume (and increase it in the future) of gas transit from Russia (subject to the establishment of interstate cooperation) and other states, it is necessary to take into account its interests in the operation of the Ukrainian gas transportation system. One of the options for such joint activities could be the creation of a transnational gas transportation company (with the aim of privatizing the GTS), which would include: Ukraine (at least 50% plus one share), a partner country and a strategic investor. The presence of a third party (oil TNC) will provide: receipt of funds for reconstruction and modernization; exclusion of the possibility of making economically impractical decisions for political reasons; involvement of Ukrainian enterprises and specialists in international projects; transparency of the gas business and the transition to cash settlements; increasing the level of system management; reduction of energy consumption during system operation, etc.

The creation of international consortia to attract funds to finance large gas TNCs and global financial donors gas transportation projects to Ukraine from Norway (via Poland), Iran (via Armenia, Georgia and Russia or via Turkey, Bulgaria, Romania) is extremely necessary in the near future, Azerbaijan (via Turkey), supplies of liquefied natural gas from the Caspian countries, provided low-temperature technologies and equipment. Ukraine is not able to implement such diversification projects on its own due to their high cost.

For the development of the coal and gas industry it is necessary to solve a number of economic, organizational, environmental and political issues: reduce corruption, improve the investment climate, take financial and non-financial measures to stimulate mining and processing enterprises, synchronize plans for fuel and energy sectors and other sectors. economy, to systematize data on natural resources and ensure equal access to market participants, etc. Currently, the relevant measures are being developed by the leadership of Ukraine together with representatives of the business community, scientists and experts.

In the oil industry in the medium term breakthrough results are not expected due to the low level of resource base development and the complexity of raw material production processes. The increase in liquid fuel production to volumes that meet approximately *потребу* domestic needs is seen on the temporary horizon of 2025-2030. Increased production of oil and gas condensate may have a positive impact on the oil, gas and coal refining sector. The goal of the "Strategy-2035" is to increase to 50% the share of national processors in the structure of motor fuel consumption, and product quality should not be lower than the "Euro-5" standard [9].

Measures to modernize and develop the network economy, restore the main power lines in the western direction and create crossings (so-called inserts to ensure flows) can be implemented within five to six years. Ukraine needs a stable and strong electricity connection with the EU for political, economic and technical reasons - to demonstrate success in the process of rapprochement with the European Union, reducing dependence on supplies from Russia, electricity exports (in the presence of surpluses) and its imports (in the case of NPP shutdowns, interruptions in the operation of thermal power plants). It is assumed that during the unification of the UES of Ukraine and the pan-European energy system, the electricity connections of the UES of Ukraine with the UES of Russia and Belarus will be severed.

There are serious problems in the heat and nuclear generation sector. They are due to the high level of equipment wear, forced by difficult working conditions - in the mode of daily power maneuvering - large thermal power plants (TPPs) and nuclear power plants. In addition, half of TPPs are 30-40% dependent on supplies of Donetsk coal (from DPR and LPR), and 80% of nuclear reactors use Russian-made thermal assemblies (TCs), which is unacceptable to the current Ukrainian government for political reasons.

The impact of Donbass is expected to be reduced by switching thermal power plants to solid fuel produced in the central and western regions of the

country, which are supplied from foreign markets. Modernization of TPPs can be carried out within a few months.

The situation in the nuclear sector is more complicated. Ukraine plans to continue implementing the program of replacing Russian vehicles with foreign counterparts and at the same time look for ways and means to extend the life of power units without Russia's participation. Under the condition of modernization, the service life of existing nuclear reactors developed and put into operation in the second half of the last century is limited to 10-20 years, ie until 2030, the maximum - until 2040 in the next few years the possibility of reducing nuclear generation due to shutdown of individual units. In the medium term, Ukraine will need to make a number of strategic decisions on ways and means of developing the industry: to build new large nuclear power plants or low-capacity nuclear power units, to increase or extract uranium ores, to process spent fuel, to create its own fuel assemblies. In the pessimistic scenario, ie in the conditions of further collapse of the industrial sector - a key consumer, the possibility of Ukraine's gradual abandonment of nuclear electricity and switching efforts to the development of uranium mining, utilization / recycling of nuclear waste supplied from foreign markets is not excluded.

Today, cooperation between Ukraine and Germany in the energy sector is actively developing. At the end of August 2020, a joint intergovernmental statement on the launch of the energy partnership was issued. "The Energy Partnership provides both sides with an important basis for political dialogue in the energy sector. This will allow us to further expand our cooperation on energy and climate protection and make it more effective," said German Federal Minister of Economics and Energy Peter Altmeier. quotes the German Embassy in Ukraine in a press release issued on the evening of August 27, 2020 [2].

Energy efficiency projects in Ukraine, in particular, insulation of hospitals and schools, are supported by the Federal Ministry of Economic Cooperation and Development and the Federal Ministry of Environment, Nature Protection and

Nuclear Safety. In addition, KfW State Bank is financing the reconstruction of a structurally important transformer substation in Luhansk Oblast.

Ukraine plans to start implementing a number of projects in the near future on the construction of PSPs, reconstruction of hydropower plants and development of mini and small HPPs with a capacity of 1 to 10 MW, as well as energy storage projects, encouraging German business to participate in investment projects. In addition, German businesses were presented with green energy investment projects, including hydropower, wind and solar energy, as well as projects for the production of bioethanol with a neutral level of CO₂ and green hydrogen, and invited to consider the use of land and infrastructure planned to close mines. implementation of innovation and investment projects.

Speaking about Ukraine's energy diplomacy, it is important to note the cooperation of our state with Azerbaijan. Ukraine is one of Azerbaijan's main trading partners and the vast majority of Azerbaijan's energy exports to Ukraine are oil and petroleum products. In addition, in 2011 the issue of transportation of Azerbaijani liquefied gas to Ukraine was resolved. Azerbaijan as a producer of energy resources, and Ukraine as a consumer and a transit country, together play an important role in ensuring the energy security of a number of countries.

Ukraine is interested in diversifying the routes and sources of natural gas supplies. In this regard, when connected to the Southern Gas Corridor, Ukraine will be able to purchase gas from Azerbaijan in the second and third phases of the project. In addition, close cooperation with the State Oil Company (SOCAR) and an increase in the supply of petrochemical products is planned [8].

Article 93 of the Law of Ukraine provides for the introduction from 2020 of a new competitive mechanism to stimulate the production of electricity from alternative energy sources through auctions for the distribution of support quotas. To receive support in the form of the purchase of the entire volume of electricity produced from RES at a fixed price for 20 years, the relevant economic entities must become the winners of the auctions, offering a lower selling price of 1 kW / h of electricity produced. The following projects can participate in such auctions:

- electric power facilities with an installed capacity of more than 5 MW, producing electricity from wind energy (except for facilities with three wind turbines, regardless of the installed capacity);
- power facilities with an installed capacity of more than 1 MW, which produce electricity from solar energy.

Thus, a promising and possible direction of further Ukrainian-Azerbaijani cooperation is the participation of Azerbaijani companies in future auctions. It should be noted that AZGUNTEX solar panel production plant has been operating in Azerbaijan since 2012. Therefore, a promising area of cooperation between Ukraine and Azerbaijan may be the creation of industrial facilities for the production of equipment for renewable energy facilities, the use of which is further stimulated by a special surcharge to the "green" tariff and / or future auction price in accordance with Article 92 of the Law.

At the same time, to ensure the balance reliability of the power system in terms of significant growth of RES, based on the provisions of Article 29 of the Law of Ukraine "On Electricity Market" by the Cabinet of Ministers of 10.07.2019 the Ministry of Energy tender for the construction of generating capacity and the implementation of measures to manage demand [8]. This competition will provide an opportunity to stimulate the construction of new generation facilities, including highly maneuverable ones, as well as to develop demand management tools and electricity storage systems that will participate in the domestic market, balancing electricity market or ancillary services market.

At the same time, a bill on the introduction of incentive mechanisms for the installation of power storage facilities at power plants is expected in the near future.

Given all this, Ukraine is interested in attracting investment and technology in the sector of highly maneuverable generation, the creation of management systems for demand for electricity, industrial storage.

Within the framework of the prospects of Ukrainian-Azerbaijani cooperation, a draft Memorandum of Cooperation between the Ministry of Energy

and Environmental Protection of Ukraine and the Ministry of Energy of Azerbaijan has been developed. Among the promising areas of cooperation may be investments in oil transportation and refining infrastructure, as well as the participation of Azerbaijani companies in auctions for balancing capacity.

Conclusion. In the period after 2020, the basic version of the "Strategy-2035" is projected to reduce the volume of transportation of Russian fuel to 80-50 billion m³ per year, otherwise - up to 40-15 billion m³ per year. The cost of modernization and restoration of the pipeline part of the GTS is estimated at 10-15 billion dollars. USA. However, in these conditions it is planned to cede to foreign companies / investors up to 49% of the shares of this asset and to integrate the GTS into the EU gas transmission system. It is likely that the Ukrainian GTS will be used for the transit of Russian gas (in small volumes), as well as the storage of fuel in European underground storage facilities of European companies. Ukraine's oil pipeline system can be more widely used in the transportation of oil and oil products to Belarus, the Baltic States and other countries of the united Europe. Thus, the tasks set by Ukraine for the development of nuclear power and pipeline transport can be solved in part.

The declarative goal of the Strategy-2035 is to increase the share of RES in the national structure of electricity production to 25%. To achieve this, the country does not have the necessary financial resources and technologies. It is possible that a slight increase in the centralized production of RES energy will be ensured through the use of imported second-hand equipment, such as wind farms, released in the EU during the re-equipment of wind farms.

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Катерина Чала,

аспірант

Інституту міжнародних відносин

Київського національного університету імені Тараса Шевченка,

третій секретар відділу співробітництва з експортерами та інвесторами

Департаменту економічної дипломатії

МЗС України