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ABROAD EXPERIENCE OF THE FORMATION AND IMPLEMENTATION OF STATE ENERGY POLICY: THEORY, METHODOLOGY, PRACTICE

The article examines the foreign experience of the formation and implementation of state energy policy. The theoretical and methodological principles of the formation and implementation of the state energy policy in different countries of the world have been determined. The peculiarities of various practical approaches to the formation and implementation of state energy policy abroad are determined. The ways of improving the state energy policy of Ukraine are outlined, taking into account the existing foreign experience and in the conditions of modern challenges and threats.

Keywords: public management and administration, state administration, mechanisms of state administration, state energy policy, foreign experience of state energy policy.

Problem setting. In today's global world, there are more and more problems in ensuring national and geopolitical energy security, which is largely connected with russian military aggression against Ukraine. That is why, in the conditions of martial law, one of the most important directions of ensuring the defense of Ukraine, the safety of the population and the protection of the national interests of the state is the energy sector.

It is common knowledge that global energy consumption will continue to rise in the long term. This trend makes the energy issue one of the biggest problems of humanity in modern conditions, which requires an urgent solution. That is why on the global agenda is the task of the appropriate formation and implementation of a certain model of energy policy, which will provide humanity with the necessary amount of energy resources, increase the efficiency of their use, and at least come closer to understanding the direction in which the development of world energy should move in the long term.

It is also extremely important for substantiating directions for improving the state energy policy of Ukraine and preventing or minimizing possible challenges and threats in the energy sector, which will contribute to ensuring the country's further sustainable development in modern conditions.

Recent research and publications analysis. Scientists such as Baltos H., Beck P., Vidakis I., Gold F., Grubbe M., Andrew-Speed F., Conant M., Mitchell J., Moreira F., Shaffer B., Josephs D. and others have devoted their scientific publications to considering the features of the formation of state energy policy and highlighting various models of its implementation in the

world [5; 6; 7; 8; 9; 10; 11].

However, many questions regarding the possibilities of adaptation in Ukraine of the world experience in the formation and implementation of various models of state energy policy remain insufficiently researched.

Paper objective. The purpose of the article is to substantiate the theoretical and methodological foundations and features of various practical approaches to the formation and implementation of state energy policy in different countries of the world, as well as to determine possible directions for improving the state energy policy of Ukraine, taking into account foreign experience and in the conditions of existing threats and challenges.

Paper main body. It should be noted that russian military aggression against Ukraine had a significant impact on geopolitical energy security.

Thus, the World Bank (WB) warns that the war in Ukraine will cause the "biggest commodity shock" since the 1970s: from April 2020 to March 2021, the largest increase in energy prices was observed in 23 months since the increase in oil prices in 1973, when tensions in the Middle East led to price increases. The poorest households will be particularly affected, as they spend a large part of their income on energy needs, which is why they are particularly vulnerable to sharp increases in energy prices [11].

Many years of experience in the modernization of the energy sector, as well as the formation and implementation of the corresponding state energy policy, have allowed the leading countries of the world to ensure their own energy security and significantly increase the efficiency of energy use.

It should be noted that increasingly the state energy policy conducted by national governments depends on the international context. That is, the international dimension of energy issues led to the creation of a close relationship between energy and foreign policy, and the actions of one country in the field of energy policy are reflected in positive or negative consequences for other countries.

Therefore, national governments are not free to conduct energy policy in isolation from each other, and energy resources are both potential instruments of foreign policy and a factor that can influence the results of the state's foreign policy.

For example, Shaffer B. in his analysis notes that changes in the energy market naturally change the relationship between producer countries and consumer countries, accordingly, "energy interests, especially in conditions of fierce international market competition, affect the mapping of geostrategic interests" [10].

Classical research on energy geopolitics arose as a response to the consequences of the two oil crises of the 1970s, which revealed the degree of vulnerability and dependence of the industrialized Western world on extractive fuels. One of the representatives of this school is Conant M., who conducted one of the first systematic studies of energy problems from a geopolitical point of view.

In 1978, M. Conant and F. Gold published The Geopolitics of Energy, a study that is considered central to the literature on energy geopolitical studies. They noted already then that "access to raw materials, especially to energy, is one of the main priorities of international political relations. The ability to obtain basic goods no longer depends on traditional colonial relations or military power, but on geographical factors and the political decisions of governments. A country that has control over resources will control those who rely on resources, which will lead to a profound transformation of international relations [5].

However, energy geopolitics gained wide popularity already after the 1990s, when global resources, mainly extractive fuels, became scarce in the face of growing global energy demand. At the same time, with the end of the Cold War, new concepts emerged, and concerns about energy security began to emerge in global discussions.

Thus, in 1996, Mitchell J., Beck P. and Grubbe M. highlighted the changes in the global energy geopolitical situation after the Cold War in the book "The New Geopolitics of Energy". According to them, the renewal of energy geopolitics was caused by a number of factors, including:

• with the end of the Cold War, the main restrictions on the freedom of action of the USA in the Middle East and other regions of the world were removed;

• international energy trade was greatly transformed due to Russian oil and gas resources, as well as due to the integration into the world system of other former Soviet countries;

• increased value and specific weight of natural gas in the energy sector due to the development of technologies [8].

Since 2000, there has been a steady increase in the number of analytical studies devoted to global energy, which emphasize the importance of energy geopolitics. However, only a few authors tried to clarify the very concept of energy geopolitics. One of them was Andrew Speed F., who noted that energy geopolitics refers to the study of national security and international politics in the context of the global energy scene. For him, the key factors of energy geopolitics are: instability in oil-producing regions due to internal, regional and international factors; growth of national oil companies; resource nationalism; depletion of reserves of traditional suppliers of energy resources and the opening of new sea routes [4].

Greek researchers I. Vidakis and G. Baltos created the concept of "geoenergy" to consider the impact of energy resources on political and economic systems, as well as their impact on international relations. For these authors, geoenergy is a new method of analyzing the process of political decision-making, both on a national and international scale.

At the same time, at the initial stage of the analysis, the decision-making process in the political, economic and even social spheres is considered based on the geographical conditions of the regions, which are determined by processing information about energy resources. And at the next stage, the relationship between political decisions and actions and the availability of energy resources, as well as the potential of using these resources, is considered. The study of energy interrelationships at the global or regional level allows: first, to assess the impact of new technologies on the energy industry, mainly by observing how these new technologies affect the solution to the problem of energy shortages and how they change the geostrategic importance of different regions of the world; secondly, to collect quantitative and qualitative data on the lack of energy resources, taking into account the causal relationship between the lack of energy resources and certain political decisions; and, thirdly, to create a classification of world states according to the reserves of energy resources they control [6].

F. Moreira, in his analysis of energy geopolitics of developing countries, claims that energy geopolitics can be understood as a set of all geopolitical and strategic elements that affect control over energy reserves, development of technologies, energy infrastructure and use of energy resources. In the definition of F. Moreira's concept, the variables of energy geopolitics analysis are: 1) geographical location and distribution of the main reserves of energy resources; 2) geographical position of exporting and importing countries, large energy consumers and producers; 3) the role of geopolitical and strategic confrontation between

importing and exporting states; 4) strategies of groups of countries or major powers to ensure their own energy security and influence other countries in the field of energy [9].

In turn, Contant M. and Gold F. emphasize such variables as geographic location, supply lines, technological and processing capacity, and factors affecting supply and demand, such as inventory analysis, processing, discovery of new deposits, increased consumption and research, as well as energy technologies [5].

Although other scientists single out the same factors that determine energy geopolitics, they emphasize that the influence of geographical factors on energy security is not static, and it changes over the years "with the development of technologies, changes in the demand for raw materials, changes in domestic and international political goals, as well as changing standards for assessing the legality of means of achieving political goals" [7].

At the same time, throughout history, the importance of geographical factors also varied depending on the evolution of the international system and the emergence of new international subjects. In addition, energy, which is a scarce, unevenly distributed and expensive commodity subject to significant price fluctuations, has a number of characteristics that make it capable of being used as a powerful economic weapon, with significant consequences for the prospects of the world economy and the geopolitical interaction between energy producers. between its consumers and between the first and second. In order for a geopolitical entity to be able to use energy as a weapon, it must meet three conditions: 1) be a global player in the energy market, or at least regional, in terms of exporting energy carriers, in order to be able to influence market pricing ; 2) the economy should be multi-disciplinary, not only raw material, which would allow it to withstand external threats and pressure; 3) its economy must be stable enough so that domestic politics suffer minimally from the economic losses caused by its geopolitical game. On the basis of the above conceptual boundaries, energy geopolitics is the study of the interaction between all participants of the global energy scenario, as well as the impact of energy and all components included in the complex energy system (geographical location, supply system, energy technologies, processing production, as well as factors affecting the demand and supply of energy) on the decision-making process in the political, economic, military and social spheres [7].

It should be noted that energy plays a key role in providing resources for economic development and increasing the competitiveness of the state's economy. Therefore, we will conduct an analysis of the currently existing models of state energy policy and evaluate their effectiveness, which is of great practical importance, primarily from the point of view of the formation of a model of state energy policy in Ukraine.

The analysis of the policy of various states in the field of energy in the modern world allows us to distinguish three models of state energy policy [2].

The first model - national monopoly energy policy - is characteristic of states that own significant energy resources, and its distinguishing feature is the fact that energy policy is considered as a separate economic segment that is largely controlled by the state. This leads to a more closed nature of the energy industry for independent domestic and foreign entities. At the same time, energy is considered as the basic basis of the economy as a whole, the resource base for its development. These features can be observed in Azerbaijan, Turkmenistan, and Tajikistan. The national-monopoly model is also widespread in such self-sufficient energy-resource countries as Venezuela, Iran, Saudi Arabia, etc.

The second model is national-competitive: the formation of this model of state energy

policy began in the 1980s and 1990s, when, for example, in such countries as the USA, New Zealand, etc., reforms of the most important energy industries - electricity and gas industry - took place. If before the beginning of the reforms in most countries of the world, energy was generally considered as an activity that should be carried out by the state (or state-controlled structures), then in the 1980s, the dominant liberal doctrine, which provides for the reduction of state intervention in all energy sectors, became dominant. The most vivid example of this approach was the policy of the governments of Reagan R. (USA) and Thatcher M. (Great Britain), which deregulated many markets that were previously considered monopolistic, primarily gas and electricity. As a result of the reforms, significant changes took place in the institutional structure of the gas industry and the electric power industry: rejection of state regulation of producer prices, privatization and division of activities, giving large consumers the right to choose a supplier, etc. At the initial stage of liberalization in the gas industry and in the power industry, positive results were manifested, namely, increased competition among producers, which led to a reduction in production costs and a decrease in energy prices. Ultimately, this became an important stimulus for the development of the economy as a whole.

So, for example, in the USA between 1988 and 1995 wholesale prices for natural gas fell by 26%, in Great Britain from 1990 to 1999 the average prices of natural gas for industry fell by 45%, and for domestic consumers by 20% [1].

However, it should be noted that at the current stage, the national competitive model has more and more opponents, which is objectively caused by the crisis phenomena in the energy sector as a result of the implementation of liberalization reforms.

As a result, the formation of a new model of state energy policy began - an integration-competitive one, which is designed to create a common energy market and develop a single state policy for a number of countries by integrating state energy policies, developing general standards and management laws in this area.

The integration-competition model is being formed in the energy policy of the European Union and the Scandinavian countries (Norway, Sweden, Denmark, Finland), where the state energy policy is based on the continuation of the common policy of development of competition and integration of the common market. An important condition for the implementation of a single energy strategy of the EU and the formation of a single energy market is the implementation of reforms in the field of energy, which involves the liberalization of the market, the development of competitive relations in this field [2].

It should be noted that the national-competitive and integration-competitive models of state energy policy are similar in their basic characteristics. The latter is a peculiar consequence of the evolution of the national competitive model. Characteristic features of both models are the development of competitive relations in the energy sector. The role of the state in these models is quite high, but the emphasis is on the formation of conditions for market functioning (in particular, on the creation of a regulatory and legal framework), and not on the use of administrative resources and directive management.

At the same time, the specificity of the integration-competition model consists in reducing the role of national state policies in the field of energy. Conversely, the national-monopoly model of energy policy demonstrates the desire for a directive model of energy management, the desire of the state to take control of the main resources through the preservation of leading assets in the energy sector. At the same time, energy policy is formed in isolation from the economy as a whole, representing, rather, a means for the development of the latter [2].

Therefore, both national-competitive, integration-competitive, and national-monopoly models of state energy policy demonstrate significant limitations. Therefore, in Ukraine today, it is necessary to strive to find a new optimal model of state energy policy, the basis of which will be a balanced combination of the advantages of competition with state control and support for investments in strategic projects of the development of the energy sector.

Therefore, the study of the specifics of energy development in different states made it possible to distinguish three models of state energy policy: national-monopoly energy policy is characteristic of states that possess significant energy resources, and its distinguishing feature is the fact that energy policy is considered as a separate economic segment , which is largely controlled by the state; national competitive energy policy - the liberal doctrine becomes dominant, which provides for the reduction of state intervention in all energy sectors, increased competition among energy producers, which contributes to the reduction of production costs, lower prices for energy resources and is an important stimulus for the socio-economic development of the country; integration-competitive energy policy - designed to create a common energy market and form a single state policy for a number of countries through the integration of state energy policies, development of common standards and management principles in the energy sector [3].

Conclusions of the research and perspective of further development in this direction. Thus, Ukraine faces the need to form and implement a new long-term state energy policy, which should provide for a fundamental restructuring of the national energy sector, taking into account the existing threats and challenges of today. At the same time, the chosen model of state energy policy should ensure the transformation of Ukraine into an active and influential participant in international relations in the energy sphere, in particular through its active participation in international energy projects and interstate entities in the following directions: export-import of energy resources; participation in the development of deposits of energy resources; participation in the construction of energy facilities in other countries; development and implementation of the existing energy transit potential of Ukraine.

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