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## ENERGY SECURITY IN THE SCIENTIFIC APPROACHES AND CONCEPTS OF INTERNATIONAL RELATIONS THEORY

## **Summary**

This article considers the problem of energy security in international relations theory, taking into account the approach of particular schools and trends. Given that the question of energy security remains a determining point to both sides and multilateral relations, it is important to develop universal theoretical and practical approaches to ensure its application for all the parties. Otherwise the sphere of energy relations will continue to be confrontational.

**Key words:** energy security, energy, international relations, neorealism, neoliberalism.

**Problem formulation.** Energy security is one of the most pressing problems. Over the last few decades, mankind has used hydrocarbon energy more than in all previous history. Actively developing alternative energy sources are not yet able to completely replace carbon-based fuels and ensure a stable supply of energy resources of the state. Reliable energy supply stands today one of the most important factors of sustainable economic development. From the quality and smooth operation of power depends largely on the level of energy services to the population, and the national security of the country as a whole.

The increased interest in recent years to the problem of energy security due to the fact that, according to forecasts, in the near future, competition for access to energy and to ensure uninterrupted supply will escalate. Developed countries have ceased to be the main buyers of energy, but not because their needs are reduced (on the contrary, consumption in this group of countries is steadily growing), but because the pace of economic growth in developing countries is higher than developed countries. Accordingly, there are powerful new players in the energy market, which also contribute to increasing competition for access to energy. The current situation on the energy market, once again raises the problem of energy security on the agenda in international relations.

Analysis of recent research and publications. For maximum objectivity and comprehensiveness of the study examined extensive material. Energy security is the subject of a significant number of scientists. Wide range of problems in the field of energy, the conceptual apparatus of political science understanding of processes in the energy sector, the issues of energy security and other related policy issues in the energy sector devoted to the works of famous Ukrainian scientists, such as VO Barannik, MG Zemlyanoi, O. M. Suhodol, EI Sukhin.

As well as the works of Russian scientists such as D. Bëme, M. H. Dunn, N.I. Voropai, S.M. Senderov, Gafurov A.R., K. Dench, S.Z. Zhiznin, N.V. Mironov, K.V. Trachuk. And the work of foreign scientists, such as: A. Bressan, B. Buzan, M. Clare, A. Goldfau, John. M. Whitt, Robert Grafstein, L. Kraemer, D. Moran, J. Russell, K. Waltz.

The aim of the article is to analyze the specifics of international security in the context of the energy problem through the study of the basic modern approaches to the definition of "security" and "energy security".

**Statement of the basic material.** The strategic need for States in a constant and uninterrupted supply of energy resources became apparent at the end of the XIX century, t. E. At a time when there was an active mechanized forces. Army mass transition to equip military equipment and various mechanisms, need a constant supply of fuel [24].

During the XX century the problem of supply sources of energy economy not just stand in front of the developed states of the West, which ultimately led to the

establishment of a modern system of energy security with its institutions and mechanisms of regulation.

We note that, despite the presence of a large number of studies so far there is no single universally accepted definition of the term "energy security." For the first time the concept was used in 1947 in connection with the adoption of a legislative instrument in the United States are regulated by the state policy in the field of national security [4, p. 179]. However, just the concept of "energy security" appeared after the oil crisis in 1973, established his background in 1974. The International Energy Agency has given the following wording: energy security is "confident that the energy will be available in quantity and quality, which are required under the given economic conditions" [3, p. 4].

Currently, the concept of "energy security" takes on new meaning. If the first scientific definition limits the scope of a single country, determined energy security as a necessary energy supply of the population and the national economy, the dominant over the past thirty years, the definition is subject to rethinking and expanding due to components such as, for example, environmental and technological safety. According to the founder of the Cambridge Energy Research Associates J. Stanislav energy security "in modern conditions - it is not just security of supply. The concept of energy security is defined more broadly. Energy security covers security issues in the political, environmental, infrastructure and even a sense in terms of the threat of terrorism, taking into account the new task of sustainable development and the challenge of climate change " [13, p. 3].

The traditional approach of realist international relations aimed at international security. Given a realistic concept presented K. Waltz, [26, p. 155] states act in accordance with their structural power in international relations. Uolttsovskaya system assumes that states are struggling to survive in the international system, characterized by the absence of any "global" power.

The struggle for power especially in interstate relations, including myself, and access to resources. K. Waltz predicted that the oil crises caused by the Arab embargo on the export will not be any change of power to the West [26, p. 155-157].

Nonetheless, energy security has become a question of motivation of security 246 for many developed countries during the oil crises of 1973 K. Waltz argues that there is a continuity of the strategy of large western states in energy geopolitics. Political actors are changing, but remains a national strategy [26, p. 155-157].

Security can be defined as the defense (in regards to the threat) or offensive (the best benefit in relations with other actors [23, p. 139]). According to Waltz security is the main defense: a safe manner from the anarchic structure of society. Energy security is the offensive as soon as the weak spot are the Western countries, they prefer to use an offensive strategy.

The concept of security, which was revised by B. Buzanov. In the 1990s he joined the Copenhagen School, who studies security. According to the teachings of this school, "security" is not considered a direct consequence of the threat, but rather is defined as the result of a political interpretation of the threat, in a process called security. The authors of this school point to the need to build a conceptual model of security, which means that something more concrete than any threat or problem [20, p. 7]. Thus, security is defined as a non-linear response to the threat. Inheriting Realists point of view on international relations, said the Copenhagen School of anarchy as a major feature of the international structure, which also explains the views of state security (safety concerns). Furthermore, under this approach, the term security includes five specific sectors: the political sector with the participation of internal and external stability of the military, covering their defensive and offensive capabilities, the sector of social security means stability culture (ie, national or religious) identity, economic security, connected with access to resources and markets, and environmental safety is defined as the environmental protection of the biosphere [19, p. 19].

For example, in modern Russian science, the concept of energy security is treated as a "guarantee the security of citizens and the state from threats to energy access violation caused by a manifestation of adverse natural, man-made, in foreign policy, socio-economic and other factors" [9; 12]. Existing approaches to the study of energy security based on the theory of international security, which are the main areas

of neorealism and neoliberalism. Proponents of the first approach are international relations as a kind of chaotic development, which does not have the supreme power, and states are forced to build military power in order to maintain its position on the world stage. This approach adherents oppose the neoliberal approach, which is credited with "a special role in ensuring the safety of international institutions and intergovernmental cooperation" [17, p. 220]. However, many authors today prefer to combine the individual position of each of the theoretical directions, allowing them to compile the most complete picture of events.

In particular, the problem of energy security, Russian scientists are exploring such as the KV Trachuk. For example, Trachuk notes, according to neo-realist concept (D. Moran, D. Russell, [25] M. Clare [21, p. 44]) a decisive influence on the energy sector has alignment relations between individual states. Each state, in turn, seeks to provide themselves with stable energy supply and also to supply its energy to other countries on the most favorable terms, which ultimately leads to an increase in tensions, the emergence of armed conflict and military build-up. The central thesis of neorealist approach is the so-called "resource nationalism, t. e. strengthen state control over natural resources" [7, p. 221]. Such a policy with respect to natural resources is characterized primarily for the producing countries, which are thus seeking to strengthen its position in the international arena and to protect its interests in the world market.

Ideas neorealist form the basis of one of the two approaches to globalization - the Beijing consensus, when energy resources are considered to be state property, is one of the key "pillars" of national security, and often depend on the political situation. The state in this model seeks to control all three main elements of the "energy chain" - extraction, transportation and distribution of energy [5, p. 28; 9]. An example of such a state can be a Russian, whose approach to energy security is based on long-term mutual cooperation of suppliers and customers and building the conditions under which importers have to believe in the reliability of supply and exporters - in the stability of demand. Focusing on long-term cooperation is especially important due to

the fact that "for the development of deposits and difficult to transport energy from suppliers to consumers need to create expensive infrastructure" [5, p. 20].

For example, K.V. Trachuk considers that the provisions of neorealism criticized by supporters of the neo-liberal concept of (A. Goldtau, J.M. Witte [22] A. Bressan [18, p. 269]). An important place is withdrawn neoliberal market mechanisms, which determine the main trends in the energy sector. That operation of the global free market of energy resources reduces the likelihood of the use of so-called "energy weapon" by the introduction of an embargo on the supply of energy, and does not allow any party to subdue the pricing mechanisms. In addition, the proponents of neoliberal direction point out that a key role in regulating energy relations as well as in the design of certain norms of cooperation is played by such supra-national institutions such as the International Energy Agency and the International Energy Forum. Thus, energy security is based on a mutual interest in co-operation of exporting and importing countries.

The ideas of neo-liberalism are reflected in a different approach to globalization - the Washington consensus, calling for the liberalization of the energy market. [1] Proponents of this area (USA, EU) in favor of free access to the raw material, not a complicated political obstacles, the expansion of the free market and against the long-term agreements, which lead to the "blocking" of the hydrocarbons in the long-term contracts and the impossibility of their entry into the free market [5, p. 21].

Considering the problems of energy security, many authors prefer to use both approaches as elements of neorealist and neoliberal as to clearly define the impact of the energy sector for the development of market mechanisms, on the one hand, and the interstate rivalry - on the other, is very difficult. This integration of elements of the two approaches is typical, especially for George. Stanislaw, who, featuring complex relationships importers with exporters of energy, at the same time emphasizing their mutual interest in co-operation [13].

Many Russian researchers in their work uses elements of both approaches. So, N.V. Mironov writes about high dependence of some countries and regions from

energy supplies, which could result in a potential military conflict. Despite the fact that, in my opinion, are the key military aspects of international energy security, he does not deny the role of international institutions such as the International Energy Agency and OPEC, as well as multinational corporations. Of course, the stability of the energy markets is important for all participants, but nonetheless, they are guided, first and foremost, their own benefit, ignoring the factor of global interdependence. [12]

The work of another Russian researcher – S.Z. Zhiznin, considering energy diplomacy Russia also combine both ways: as well as supporters of the neo-liberal concept, he noted great importance of international institutions for building the energy dialogue between Russia and partners, but after supporters of neo-realism the author draws attention to the fact that Russia will be able to strengthen its position in the world market only through effective and constructive cooperation of the Russian oil and gas companies with public authorities, ie. e. thanks to the active support of the energy sector of the state. [8]

The works of Ukrainian scientists in the economic encyclopedias define energy security as the presence of the economic sovereignty of the country to provide themselves with fuel and energy resources [7, p. 501]. Authors of the publication note that the reverse side of energy security is energy hazards arising as a result of the acute shortage of energy resources, wasteful use of energy, excessive dependence on import, denationalization and privatization of inefficient energy system of the state and the like. The main factors affecting the energy security is a level of its own oil, gas and some raw materials, energy consumption and high production.

- M. Zemlyanoi, based on the concept of security in general as state security (someone, something) from threats, defines energy security as a condition of its vulnerability to energy-related threats, ie, a condition in which provided:
- Reasonable enough, technically reliable and secure supply of energy economy and population;
- Inability to significant internal and external pressure on the country's leadership, the factors which are related to the energy sector;

- Acceptable level of adverse effects on the environment from the production and use of energy;
- Lack of social tensions (significant conflicts, strikes and other social problems) associated with the energy sector [10, p. 61].
- M. Sukhodolya also believes that "energy security a state of defending the vital" energy interests "of individuals, society and the state from internal and external threats, providing uninterrupted customer satisfaction economically acceptable quality accessible under normal conditions and in emergency situations" [14; 15].
- V. Nikitenko considers energy security as a system of a combination of potentials economic, political, technical and technological, resource and, in fact, the energy and the factors of scientific, geographic, organizational, management, etc., without which the analysis of any security It is not possible [11, p. 41].

This view of the nature and content of energy security, it allows you to structure-based multiline and multi-layered approach greatly enhances the possibility of an objective analysis of the processes associated with changes in the energy sector. In addition, according to the actual structuring of the energy security of the state, based on the information and synergetic worldview can determine the priority in the development of fuel-energy complex.

E. Sukhin believes that energy security "is the ability of the state to provide the most reliable, technically safe, environmentally acceptable and reasonably enough energy economy and population, as well as the guaranteed provision of the possibility of the state leadership in shaping and implementing policies to protect national interests in the energy sector without excessive external and internal pressures in modern and future conditions" [16].

VI Shlemko and I. Binko under the energy security of Ukraine understand the "state's ability to make effective use of their own fuel and energy base, to carry out an optimal diversification of sources and routes of energy supply to Ukraine to ensure the viability of the population and the functioning of the national economy mode normal, emergency and martial law , prevent sharp price fluctuations in fuel and energy

resources and create conditions for the painless adaptation of the national economy to new prices for these resources " [6].

V. Barannik defines energy security as "the ability of the state to provide the most reliable, technically safe, environmentally acceptable and reasonably sufficient energy supply of the economy and population, as well as the guaranteed provision of the possibility of the state leadership in the formulation and implementation of policies to protect national interests in the energy sector without excessive external and internal Pressure in the current and foreseeable conditions" [2].

Conclusions. Thus, in modern science there are different approaches to the understanding of energy security, the ongoing debate between the proponents of neorealist and neoliberal approaches. The former believe that the relationship between states, each of which pursues its own goals, determine the development of the energy sector. Supporters of neo-liberal concepts, by contrast, the basis for the maintenance of energy security, taking the global market mechanisms and thus play a key role of the Institute for International Cooperation. However, disputes between supporters of different approaches do not exclude the possibility of simultaneous use of the provisions in both directions, which is very typical for modern research and allows most fully cover all aspects of energy security.

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