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ENERGY SAFETY POSITION IN THE NATIONAL SECURITY OF THE COUNTRY

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ABSTRACT:
The article would like to define and research the energy safety position in the national security of the country. Many questions are submitted for legal support especially in the part of the cooperation between the State and private economy sector directed to regulate cooperation in the energy market, also warranties establishment and regulatory actions on private entrepreneurs in case of emergency, also questions regarding the state responsibility in case loss being inflicted as a result of cost adjustment. Action mechanism is not worked out by the State in case of safety risk appearing, quasi –sector and private economy sector subjects and direct or indirect regulating actions are not regulated. As a result, in case of according safety risk appears, "energy blockade, Embargo of the State" will appear many additional questions to which are without a legal provision in the current legal regulatory acts. Taking to consideration, that the questions should be dealt with will hold out a long process so our opinion it should be started right now in the period of stable development of the country and absence of considering safety risk. Indeed otherwise, we can face huge problems the meantime without a sharp regulated plan of measurements and actions of fuel and energy sector cooperation between people and the State.

INTRODUCTION

One of the actual questions of the last ten years is the question regarding the national security of the country ranging many factors in which one of the most important is declaring the energy security of the State. Let us try to investigate what does it mean the energy security of the State and how this definition was formed? Energy security is the direct corresponding definition to the "absence

of dependence, threat safety, steady and uninterruptable power supply, and complete state satisfaction in energy resources." Economy efficiency of any modern state largely depends on raw mineral resources quantity and level of supply. Depending on own resources are used or they are involved from outside the measures contents and character are changing which has to be realized by the state to fulfill the relevant demands. The own principle task to satisfy raw demands remains unaltered (Perchik, 2008). For the first time about the energy safety principles and this direction development were absorbed in thought since the "oil Embargo" in 1973. Just then, 17 October 1973 all Arab countries OAPEC members and also Egypt and Syria announced that they will not deliver oil to the countries which were supporting Israel. In other words, the energy blockade was declared to the countries such as the United States of America and its partners in Western Europe (Blinder, 1979). The first largest oil crisis in the world has shown that energy and energy recourses delivery can be the instrument of political pressure to a state and affect to foreign and domestic policy. The real scale of the oil prices dependence of the European countries and the USA has actualized the question of energy safety formation for each State. Majority of countries who had overcome the crisis period which being affected known as energy blockade, started to implement the measures on energy safety supply for their own countries through national oil reserves foundation and energy saving principles formation. The "oil crisis" continued within 5 months and has become the catalyzer of the problem and start of the period of the State energy safety dimension and principles formation. And if it is possible to call the crisis of 1973 the first incident in the world then the energy resources acts as a pressure instrument to the State political willpower thus in the numbers of the current similar incidents should be mentioned recent "Crimea and Sevastopol energy blockade" by Ukraine. The energy resources were and remain the influence leverage and force definition for the States in the world scene. Taking to consideration constant invisible warning to stability and the independence of the young State at the current moment, the measures of the energy safety are urgent.

The energy sector of Kazakhstan is one of the important linking elements in the country's socio-economic life. In this sector, a significant part of industrial output is produced, and the country is largely developing due to the export of energy resources. In this regard, it is very important to determine the basic strategy for sustainable energy development for the long term.

Energy security, considered in the system of economic security as one of its main elements, implies the optimal use of limited resources and the use of environmentally friendly technologies saving nature, energy, and materials including the extraction and processing of raw materials, the creation of environmentally acceptable products, minimization, processing and disposal of waste. The transition to an ecological and sustainable development economy is associated with the growth of production and consumption of natural resources, their depletion, degradation and their irreplaceableness, which, in turn, adversely affects the social development of the state.

In developed countries, the usual definition of the term "energy security" is reduced to ensuring sufficient supplies at affordable prices, different countries interpret this concept differently in relation to their conditions. Energy-exporting countries place emphasis on maintaining "demand stability".

For the Republic of Kazakhstan, the transition to sustainable development is an urgent need. The basis of many socio-economic problems of the Republic of Kazakhstan is a historical imbalance, when a country consumes resources disproportionately compared to their production.

According to analytical information of B.K. Aliyarov (1996), about 0.5% of the world's mineral energy resources are located in Kazakhstan (more than 90 billion tons of oil equivalent). This amount includes about 70% of coal, 22% of oil and gas condensate and 8% of gas. The small share of oil and gas in the country's energy resources, with their sufficiently large physical volumes, is due to the enormous reserves of coal — over 70 billion tons (geological reserves exceed 175 billion tons). The predicted extracted resources of the continental part of Kazakhstan are estimated at more than 10 billion tons of oil and gas and more than 7,000 billion m^3 of natural gas (Syrlybayeva, 2011). The Kazakh sector of the Caspian Sea has resources estimated at 13 billion tons of oil equivalent. Coal reserves at the reached level of production can be considered practically unlimited. Moreover, Kazakhstan has 13 significant renewable energy resources, such as hydraulic energy, solar and wind energy. Stocks of fossil fuels and some types of renewable energy (small rivers, wind) are located throughout Kazakhstan very unevenly (Berkovskiy & Pinov, 1998; Omarov, 1998; Kushaliyev, Tashtemkhanova, & Zhanbulatova, 2018).

MATERIALS AND METHODS

When researching the energy safety problem, Zankovsky (2008) determines a few basic factors affecting a complex energy safety formation of the country, such as,

- Legal forms and state control measurements on fuel and power complex activity including mineral resources extraction, processing, and transportation.
- Legal power of the State and subject matter determination including the beginning of an emergency situation.
- Direct or indirect State legal possibilities in energy products price level regulation.
- Legal consequences for a commercial organization not obeying the State price policy.
- State responsibility for loss infliction as a result of price regulating.
- Legal support of Energy recourses diversification as an important energy safety prerequisite.
- Legal regulation, creation, and support of the energy system reserve possibility, including back up capacity, national stockpile and etc.
- Legal aspects in energy saving and State role in energy resources economy; legal measures on energy saving stimulation.
- Legal regulation in the monitoring of an energy sector situation.

- Legal supply of information accessibility and dissemination regarding affairs in this sector.
- Legal responsibility for information flow rules break.

Whereas, Professor A.I. Perchik mentions that a basic component of energy security is the "raw safety." For the first time, the concept "raw safety" was formulated in the report on the considered subject made at a meeting of Council for problems of oil and gas at Presidium of the Russian Academy of Natural Sciences in 1998 (Perchik, 1999). Professor A.I. Perchik fairly suggests that the concept "raw safety" is much wider than the concept "rational subsurface use". It includes, in addition to the development of these or those fields beside a wide range of questions of use of the extracted minerals, in particular, its transportation, processing, use in the national economy and, at last, its export. The important independent task which has to be solved by means of ensuring raw safety is a structural adjustment of the industry; gradual addition with the extracting making products of deep processing of raw materials, expansion of release of modern hi-tech products. This transition takes the long period, demands large initial investments, the creation of the developed infrastructure, and qualified HR stuff (Perchik, 2008). Taking to consideration the fact that the legal nature of the relations of each type of energy supplies/energy is different, therefore, availability under each of these types of the separate regulatory legal act or a number of such regulating documents is quite reasonable. At the same time, all these types of energy supplies integrate under one general term "fuel and energy complex". In this connection, in a regulatory framework of Kazakhstan, there is conceptual, strategic regulatory legal generalizing character directed to forming the general principles, tasks and the action plan applicable to fuel and energy complex of Kazakhstan.

The energy policy of Kazakhstan is enshrined in a number of documents. One of the most important documents, “The Development Strategy of Kazakhstan until 2030,” in which energy is noted as one of the most important sectors, is elaborated due to the need for “rapid growth in the production and export of oil and gas to generate income to ensure a sustainable economic growth and improvement of living standards of the population.” The document is a strategy for the development of the fuel and energy sectors of the country and contains sections on energy efficiency and energy conservation (Nazarbayev, 2012).

The need to solve the task of ensuring the energy security of the country currently acquires extraordinary relevance due to the tension of the fuel and energy balance in the principally energy-deficient resources, aging and increasing physical and moral wear and tear of equipment, limiting the reconstruction and development of energy industry facilities. All this can lead to an energy crisis, which in turn will limit the export of oil and gas “for the energy security of the world community” and is associated with a shortage of facilities, a shortage of energy resources, high energy intensity of the economy and a shortage of financial resources.

According to T. Aldiyarov (2011), the energy independence of a particular country is traditionally estimated by the availability of the required type of energy in a required number of their demand through its own energy resources in the period under review in a wide range of changes in internal and external conditions. With this formulation, the main indicators of energy independence will be:

- Sufficiency and availability of primary energy for the needs of the country's economy;
- Adequacy of the performance of equipment for the conversion of primary energy into other forms of energy;
- Adequacy of transport infrastructure performance for each type of energy (primary and/or converted one);
- Environmental acceptability of the extraction, conversion, and consumption of energy of various types and forms.

Energy independence is a powerful mechanism for ensuring the country's energy security and a guarantee of energy sustainable development in relation to external factors (Nazarbayev, 2012). The factors of energy independence, which ensure the availability of a required type of energy in required volumes in any region, are the main indicators of energy security in relation to internal impact. The same factors characterize the country's energy sustainability in relation to external conditions. Energy security, along with factors affecting energy independence, is also determined by the affordability of each type of energy. These formulations show that independence, safety, efficiency and stability in the energy sector, with a sufficient difference, are closely intertwined and have a mutual influence. The general principles of sustainable development include the requirements of ensuring the interests of future generations and preserving the environment. The main parameters determining the sustainable development of the energy sector according to this principle are:

- Level of economic and technical efficiency in the whole cycle of the country's energy industry;
- Level of environmental impact of the energy sector providing self-recovery;
- Internal policy aimed at ensuring the availability of an adequate quantity of all required types of energy to all social groups of the population not lower than a certain social minimum;
- Permissible level of uneven energy consumption by region;
- Optimal institutional structure of the energy industry;
- Participation in international energy markets.

When considering the sustainable development of the energy sector, the state of the country is traditionally analyzed in terms of primary energy sources, the possibility of their transformation into other types of energy, the possibilities of transporting various types of energy to all regions of the country, the volumes and efficiency of consumption of each energy type (Denchev, 1999).

The sustainable development of the energy sector of a particular country involves:

- Reducing the impact of energy facilities on the environment to a level that ensures restoration using special technologies;
- Achievement of the optimal technological and technical structure of the energy system with predicted energy requirements;
- Achieving a high level of interchangeability of energy resources with the joint operation of various energy supply systems.

RESULTS AND DISCUSSION

In Kazakhstan, since the independence is gained, the principles of the energy industry development are presented in the legal acts such as the Resolution of the President of Kazakhstan No. 853 of 15 July 1992 "The measures on the strategy realization of Kazakhstan as the sovereign State formation and development," within the frames of which the Government (the Ministry of Energy and the State Energy Committee), the Supreme Council, the Committee on questions of development of the industry, the transport, communication and regional administrations were assigned to draft the Program providing measures for the accelerated development of energy industry with a purpose of achieving the power independence in Kazakhstan, ensuring the development of economy and the creation of the export potential based on own primary fuel resources (Nazarbayev, 2017b). The priority development of the power extracting and power processing industries are amended interchangeability and complementarity of energy supplies and energy saving stimulation. The above-mentioned executive bodies had to provide a step-by-step solution of tasks of the national economy and the social sphere power supply and gasification by the construction of electricity transmission lines and a wide network of gas pipelines, growth in volumes of production of the liquid gas.

The Resolution of the Government of the Republic of Kazakhstan No. 1381 of 7 December 1994 "Regarding raw material policy conception in the Republic of Kazakhstan" made an attempt to create principal new economy and conceptual approaches to recourses evaluation and raw mineral recourses use based on economy, rationality, economic feasibility, providing long-term economic and ecological safety of the republic, allowing to gain the maximum effect at the minimum costs (Government of the Republic of Kazakhstan, 2017). The concept of the raw policy of the Republic of Kazakhstan a component was included into the package of the interconnected conceptual documents developed in strategy implementation of formation and development of the Republic of Kazakhstan as the sovereign state, including, in particular, concepts of structural policy, foreign economic activity, economic safety etc.

On 19 April 1996, the Government of the Republic of Kazakhstan (2017) adopted Resolution No. 474 "Regarding Measures on Energy saving police realization in the Republic of Kazakhstan."

On 28 January 1998, the President of the Republic of Kazakhstan by the Decree No. 3834 approved "Strategy of Kazakhstan development till the 2030

year", which is devoted to the formation of export-oriented, technology connected fuel energy complex (Nazarbayev, 2017a). Right after that, on 29 January 1998, the Prime Minister Order of the Republic of Kazakhstan No. 22 created the Joint Committee on fuel and energy sector development (Prime Minister, 2017). According to the Program of Government action for 1998-2000, the purpose of the complete supply of the domestic demand for oil, gas and their processing products, the creation of the Eurasian network of main oil and gas pipelines, the investigation and development of hydrocarbon fields in the Kazakhstan sector of the Caspian Sea, and the Strategy-2030 are essential measures provided, which allowed to improve a situation in fuel and energy sector of Kazakhstan. At the same time, the country regulatory framework is developing, more actual legal acts are elaborated, and the questions revealed in practice are eliminated in regulatory legal acts of the industry. Taking to the consideration the fact that fuel energy sector development was dependent, in the first years of the country independence, on the cooperation with neighboring Russia, on 09 October 2000, the Government of the Republic of Kazakhstan approved the resolution regarding the memorandum between the Republic of Kazakhstan and the Government of the Russian Federation "On the cooperation in energy industry" (Government of the Republic of Kazakhstan, 2017). Hereinafter, starting from 2000, the Republic of Kazakhstan adopted separate legal acts and decrees regulating activity in oil and gas, uranium, and electric energy sectors including coal mining industry and renewable (alternative) energy.

The principal and acting at the current moment document, which determines the basic energy fuel development principles of Kazakhstan is approved on 28 April 2014 by the Resolution of the Government of the Republic of Kazakhstan and is entitled "Conception of fuel energy complex development of the Republic of Kazakhstan till 2030" (Government of the Republic of Kazakhstan, 2017). Considering that this purpose is repeated in all conceptual regulating documents of the republic, it should be noted that until the present time it remains unachieved, despite numerous reforms in this industry. The satisfaction of domestic demand for oil, gas and products of their processing remains priorities, as before as well as the creation of the Eurasian network of oil export pipelines and gas pipelines, the modernization and construction of hi-tech oil and gas processing plants, the creation of effective power technologies with the use of various energy resources, the problem resolution of ecology and environmental protection. After analyzing numerous legal acts, regulatory documents, programs and conceptions approved in Kazakhstan within 25 years of the independence, it should be mentioned that from the very beginning of the independence, the modern energy policy of Kazakhstan is directed to energy safety supply of the country, the enrichment of industry efficiency and power consumption. The President and the Government of the country, in the conditions of the industrial diversification, promote the transition from raw economy to a service and technology economy. Considering the process of forming the energy security of the Republic of Kazakhstan, a number of considerable successful stages should be mentioned: in gas industry of the country, the Government successfully solved the problem of south regions energy dependence from gas delivery from Uzbekistan. Whereas, when Kazakhstan was part of the USSR, the main oil

and gas pipelines were drawn in accordance to the strategic interests of the country where Kazakhstan was a transit zone. Thus, the main gas pipeline brought into service in 1967, i.e. “Central Asia-Centre” was delivering gas from Turkmenistan, Uzbekistan, and Kazakhstan to the south and central regions of Russia and Ukraine. The system “Central Asia - Centre” is connected by an additional gas pipeline with the Caucasus (“Makat-Northern Caucasus” since 1987) and with western regions of Turkmenistan (“Okarem–Beineu” since 1975). The main gas pipeline “Bukhara-Ural” supplied the Urals and far regions of Russia with the Uzbek gas from Gazli gas field (Ryndin, Kairzhanov, & Saginayeva, 2013). Despite large reserves of own gas in the West and the East of Kazakhstan, the southern regions of the republic till last years were in direct dependence on the supply of gas from Uzbekistan.

The construction of the main gas pipeline branch "BGR-TBA" to Almaty in 1971 allowed to receive natural gas to not only the southern cities of Kazakhstan but also to Almaty, which was the capital at that time. However, practical difficulties were the fact that the Uzbek gas was delivered to the territory of Kazakhstan through Kyrgyzstan, which, in case of gas shortage, was taking volumes intended for Kazakhstan from a pipe. In practice, such cases were repeated, and for obtaining the necessary volume, it was necessary to agree not only with Uzbekistan but also with Kyrgyzstan. This problem solution was reached as a result of long-term negotiations and the agreement between Kazakhstan and the People’s Republic of China. The sides agreed to build the main gas pipeline “Kazakhstan-China” through the southern territory of Kazakhstan, which is the component of the transnational main gas pipeline “Turkmenistan-Uzbekistan-Kazakhstan-China” with total length more than 7.5 thousand km. Today, the gas pipeline “Kazakhstan-China” is constructed as three gas pipelines-interconnectors between the main gas pipelines “BGR-TBA” (one for each region: South Kazakhstan, Zhambyl and Almaty) that gives the possibility, within the period of gas curtailment in Uzbekistan, to supply Turkmenistan transit gas into main gas pipeline “BGR-TBA” through above-mentioned interconnectors and then into the GSS for the consumers of the Southern areas of Kazakhstan (Projects of Export Gas Pipelines, n.d.). Thereby, the South Kazakhstan dependence from the gas supply from Uzbekistan is leveled. The functioning of all three main pipelines “Kazakhstan-China” branches are the biggest international gas transporting project in the history of independent Kazakhstan. The rated capacity of the main gas pipeline “Kazakhstan-China” will reach 55 billion cubic meters of gas per year (Zhanibek, 2016). Recognizing the importance of energy dependence reduction through the gas transporting system, the country’s domestic extraction should provide internal consumption. For the implementation of such task, it was necessary to provide the transportation of natural gas from West Kazakhstan where it is presented in surplus to the southern regions where it is in deficit. Solving this problem, the Government of Kazakhstan, by the introduction of amendments and additions to the Agreement between the Government of RK and the Government of the People's Republic of China on the construction of the gas pipeline “Kazakhstan-China,” insisted on the construction of the intra-republican Beineu-Bozoy-Shymkent gas pipeline (West-South). Within the Kazakhstan-China project, as a result, the Kazakhstan “Beineu-Bozoy-Shymkent” gas pipeline, having a length of 1475 km began to be considered as the second

section of the Kazakhstan-China pipeline. Thus, the cycle of internal consumption in the republic became isolated. At the same time, for the gasification of the central regions of the country the "Tobol-Kokshetau-Astana" gas pipeline was designed, which will allow to bring natural gas to the capital of Kazakhstan.

At the same time, on 14 May 2009, the Resolution of the Government approved the complex plan of oil refinery plants development for 2009-2015 years (Government of the Republic of Kazakhstan, 2017). Its main objective is ensuring energy security of the country regarding the complete satisfaction of internal consumption of the main oil products types such as gasoline, aviation fuel, and diesel fuel. It is very important to achieve a dynamic development of the competitiveness of the enterprises based on the implementation of new technologies and to increase the level of economic efficiency. For the first time, in Kazakhstan, all three oil refinery enterprises operating in the country were modernized at the same time. In addition, the modernization means not just replacement of the old worn-out equipment by a new one. Actually, in territories of the existing oil refinery plant, new plants are constructed without stopping the existing processing. In 2016, the modernization of the oil refinery plant in Atyrau was completed. In 2017, the plants in Pavlodar and Shymkent were modernized (Kazmunaygazб 2017).

The external conditions affecting the sustainable development of the energy sector the import of certain types of energy, the transit of various types of energy of a country through the territory of neighboring and third countries, and the cost and volumes of various types of energy on foreign markets. The share of supply of a specific type of energy from neighboring countries in the total volume of all types of energy consumed significantly affects the energy security and energy independence of the country. For example, Kazakhstan, with a large excess of its own gas production over the country's demand for most of the territory, imports natural gas from Russia and Uzbekistan. Thus, neighboring countries can affect the sustainability of gas supplies to Kazakhstan. The cessation of gas supplies in some regions can lead to the collapse of industry and create difficulties in providing the population with electricity, heat and cooking gas. The experience of gas supply shows that with a sharp increase in own consumption in Uzbekistan, sometimes restrictions were imposed on gas consumption (mainly for industrial enterprises) in the southern regions of Kazakhstan. The transit, through Kazakhstan, of large volume of gas and many other products from Uzbekistan to European and partly to Asian markets, excludes the possibility of a non-technological cessation of gas supplies. During the years of independence of Kazakhstan, Russia did not impose restrictions on gas supply, even with long delays in payment for gas received during the crisis years. Russia acquires a large amount of natural gas from fields of Uzbekistan and Turkmenistan through a system of gas pipelines passing through the territory of Kazakhstan. This transit cooperation ensures finding compromise solutions between these countries in supplying Kazakhstan with natural gas. For all the years of cooperation, there have been no precedents for stopping gas supplies from Uzbekistan and Russia.

The impact of transit on the sustainability of energy sector is manifested in the ability to deliver Kazakh processed primary energy products from enterprises in neighboring or third countries (impact on security and independence) and in import and export volumes (impact on the flow of funds from energy sales). The reduction of the impact of transit between neighboring states on the sustainability, energy security, and independence of Kazakhstan is achieved by quoting the right to use the transit infrastructure.

To exclude dependence on imports, many countries form various kinds of stabilization funds. They accumulate a part of resources received from sales in prosperous years to support the country's economy during the years of a sharp decline in the volume and value of exported types of energy. The demand for specific types of energy in foreign markets determines the possible volume of their sales, which, together with their value, determines the currency inflows into the country and affects their value within the country.

The internal conditions affecting the sustainability of Kazakhstan's energy sector include the availability of sufficient resources of accessible primary energy, production security of all types of energy, the state of the transport infrastructure, the purchasing power of economic sectors and the population. In its recent history, the Kazakh energy sector has experienced the impact of changes in the purchasing power of economic sectors and the population.

Many economic projects in one way or another run into the energy sector. This topic is globalizing, becoming a subject of controversy between individual countries and their unions.

Currently, developing countries are accelerating economic growth much faster than developed economies. Thus, the data of the IMF only confirm the validity of these findings (Ustimenko, 2011).

The needs of China's booming economy for energy are increasing; world oil prices are still high, which raises the status and influence of exporting countries on the system of an international partnership of countries (Andrews-Speed, Liao, & Dannreuther, 2002; Marketos, 2008; Blank, 1995). Cooperation in this area includes a number of components, such as the supply of major energy sources (oil and gas); construction of infrastructure facilities (pipelines, processing plants); development of hydropower resources, the use of the potential of atomic energy; research and innovative activities for the development of alternative energy sources (Kulibayev, 2011). Energy sector will remain a key area for China, and its global search for energy supplies is of utmost importance. The implementation of gas pipeline projects that will connect China with Central Asia and the Russian Federation is interesting.

CONCLUSION

Summarizing the present article, the following conclusions concerning energy safety have been made:

1. Position in the national security of the country is principally new and should be under additional research. Many questions are submitted for

legal support, especially in the part of cooperation between the State and the private economy sector and are directed to regulate the cooperation in energy market, the warranties for private entrepreneurs in case of emergency situations, as well as questions regarding the state responsibility in case of loss being inflicted as a result of cost adjustment.

2. Action mechanism is not worked out by the State in case of safety risk appearing, private economy sector subjects and direct or indirect regulating actions are not regulated. As a result, safety risk appears. An "energy blockade," or "embargo of the State" will generate many additional questions to which are without a legal provision in the current legal regulatory acts.
3. Taking into consideration that the questions should be dealt right now in the period of stable development of the country and in absence of safety risk. Otherwise, we can face huge problems without a regulated plan of measurements and actions of fuel and energy sector.

The 21st century defines new priorities for the development of countries; the most relevant for Kazakhstan is the integration of two major types of resources for economic growth: limited natural and inexhaustible innovative ones, which will allow a steady transition from a discontinuous economic growth that depends on the world energy prices to the sustainable economic development of the country.

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