

Life Support in the Arctic Upon Synchronizing the Development of the Northern Territories of Yakutia

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Abstract

The role of the Arctic and Northern regions, especially the Republic of Sakha (Yakutia) in the geopolitical position of Russia in the world is increasing every day. The purpose of the study is to investigate the branches of life support in the Arctic upon synchronizing their development. The leading research method for this problem is the analysis method. The paper describes innovative ways to manage the life support sectors in the Arctic upon synchronizing their development, restructuring and reforming. The comparison of the Strategy for the development of a unified energy system of the Republic of Sakha until 2030 and the Republican target program is provided. The novelty of the study is determined by the fact that it analysed the urgent problem of the need to separate the management system by industry, by creating branch ministries corresponding to the structure of the Government of the Russian Federation. The practical significance of the study is determined by the need to expand and implement the existing program of targeted training, to ensure close communication between the enterprises of fuel and energy complex and educational institutions of the Republic.

Keywords: geopolitical position, infrastructure, energy, innovation, management system.

Introduction

The role of energy in the development of the Arctic is paramount. With fierce competition between technologies, machines and mechanisms, only one that consumes less energy and produces more products will win. Therefore, issues of efficient management and introduction of innovations in the field of management in the Arctic and remote areas come to the fore. The upcoming five-year plan for 2020-2025 will be significant for the energy system of the Republic of Sakha (Yakutia). When implementing strategic projects to develop the power system of Yakutia with the launch of a 220 kV transmission line, Sukhoi Log substation, 220 kV Peleduy substation in the West, and a 220 kV

Tommot-Maya transmission line will be electrically connected to the Siber Interconnected System in the west of Yakutia and to the Vostok Interconnected System in the east. The structure of the Vostok Interconnected System will include the Central Energy District; the Southern Energy District became part of the Vostok Interconnected System in 2007. At the first stage, the main transmission lines will be transferred to the Vostok Main Power Networks of the FSK PJSC. At the same time, in pursuance of the agreements reached on gasification of the regions with PJSC Gazprom, investment projects for gasification of the regions of the Russian Federation, including the Republic of Sakha (Yakutia), are being developed and implemented.

In the medium term, with the help of PJSC Gazprom investments, there is a real opportunity to switch the natural settlements of the Vilyui, central, southern and western parts of the Republic to natural gas. With that, the zone of centralized electricity supply in the future will affect the formation of heat supply systems through the gasification of settlements during the creation of a unified gas transmission system and through electric heating. This will significantly change the approaches to heat supply in the above regions of the Republic.

The problems of ensuring Eurasian security primarily concern Russia and the entire EAEU. For them, the CSTO acts as a security shield, the area of responsibility of which, according to the Collective Security Strategy of the Collective Security Treaty Organization for the period up to 2025, is “the territories of the Organization’s member states, limited to state territories with other states that are not members of the CSTO (external borders), including inland waters, the territorial sea and the airspace above them, within which the interests of national and collective security of member states of the CSTO”. And this is 20.5 million km², i.e. 37% of the entire Eurasian space. In this regard, the aim of this paper is to investigate innovative ways to manage the life support sectors in the Arctic upon synchronizing their development, restructuring and reforming.

Analysis of the Structure of the Arctic Life Support Industries

With regard to the Russian Arctic, the main international treaty applicable to the Arctic Ocean is the 1982 UN Convention on the Law of the Sea, which is of strategic importance since it establishes a comprehensive legal regime for the world’s oceans and seas, and regulates all uses of the oceans and their resources and serves as the basis for national, regional, and international actions and cooperation in the maritime sector, including in the Arctic. As of June 2016, its participants are 168 states.¹ Russia ratified the 1982 Convention; it follows that the CSTO area of responsibility is the Northern Sea Route.

In accordance with the Federal Law of July 28, 2012 No. 132-FZ “On Amending Certain Legislative Acts of the Russian Federation Regarding State Regulation of Merchant Shipping in the Northern Sea Route”, the Northern Sea Route is defined as a body of water adjacent to the northern coast of the Russian Federation, covering the internal sea waters, the territorial sea, the

adjacent zone and the exclusive economic zone of the Russian Federation and limited from the east by the line of delimitation of sea spaces with the USA and the parallel to the Cape Dezhnev in the Bering Strait, from the west by the meridian of Cape Zhelaniya to the Novaya Zemlya archipelago, the eastern coastal line of the Novaya Zemlya archipelago and the western borders of the Matochkin Shar, Kara, Yugorski Shar² straits, therefore, the relevant provisions of the 1982 Convention apply (Articles 2-33, 55-75, etc.).

If we compare the Strategy for the development of a unified energy system of the Republic of Sakha (Yakutia) until 2030 and the Republican target program “Gasification of settlements of the Republic of Sakha (Yakutia) in 2009-2011 and the main directions of gasification until 2020”, it is clearly evident that the development of gas supply systems will take place in the zone of centralized power supply i.e. in uluses with centralized power supply. Thus: a unified gas transmission and electric power system will be created in the Vilyui, central, southern, and western parts of the republic. The creation of these centralized systems will entail a reduction in the expenses of enterprises and the population of these regions on public utilities.

The historically evolving situation of the presence of two vital industries in the north of the republic, which are currently organizationally fragmented, necessitates the merger of SUE “Housing and Utilities of the Republic of Sakha (Yakutia)” and Sakhaenergo PJSC, and, at the second stage, Teploenergoservice PJSC into a single whole, which will lead to the effect of synergy and optimization in solving common problematic issues of industries and their complex solution. In addition to the foregoing, enterprises have the following prerequisites for combining into one structure: related goals and objectives; pronounced social orientation of both sectors; similarity of the problems being solved; a single vertically controlled system, the similarity of organizational and technical structures; single entry bases; a single organizational system of tariff setting; single supervising ministry.

Thus, at the first stage, the territorial and energy industry systems should be combined in an isolated zone into a single structure, i.e. the organizational and territorial division of the State Unitary Enterprise “Housing and Public Utilities of the Republic of Sakha (Yakutia)” should follow the principle of territorial separation of the electric power industry. At the second

stage, Teploenergосervice PJSC can be involved in the reform process.

For this, synchronization of the restructuring and reforming of the housing and utilities services and energy industry is necessary. The following actions are suggested:

- capitalization of state property leased by Yakutskenergo PJSC and Sakhaenergo PJSC, an increase in the state’s share in the authorized capital of Sakhaenergo PJSC;

- corporatization of newly created enterprises upon the division of the State Unitary Enterprise “Housing and Utilities of the Republic of Sakha (Yakutia)”;

- inclusion of a joint-stock company created upon division of the State Unitary Enterprise “Housing and Utilities of the Republic of Sakha (Yakutia)”.

Restructuring of enterprises should go along the path of introducing into the Sakhaenergo PJSC a newly created JSC formed upon the division of the State Unitary Enterprise “Housing and Utilities of the Republic of Sakha (Yakutia)” and operating in the coverage area of Sakhaenergo PJSC. This path is conditioned upon the following factors:

- extensive experience of Sakhaenergo PJSC and Yakutskenergo PJSC;

- State Unitary Enterprise “Housing and Utilities Services of the Republic of Sakha (Yakutia)”;

- work experience of Sakhaenergo PJSC in the organization of a joint stock company;

- the presence of professional training of the staff of Sakhaenergo PJSC and its high degree;

- the presence of a centralized and multi-level system of operational dispatch service, equipped with modern means of communication and information processing;

- well-established sales activities of Sakhaenergo PJSC.

An important factor determining the merger of the State Unitary Enterprise “Housing and Utilities of the Republic of Sakha (Yakutia)” and Sakhaenergo PJSC is the receipt of federal funding of the Housing and Utilities of the Republic of Sakha (Yakutia) for the

cross-subsidization of diesel power. The newly formed enterprise will be financed from two levels of the budget: federal – energy industry, and republican – housing and utilities, which will increase the financial and economic stability of the new enterprise.

Features of Innovative Ways of Managing the Life Support Sectors in the Arctic by the Government of the Russian Federation

Currently, the electric power industry of the republic is under the control of the Ministry of Housing and Utilities and Energy of the Republic of Sakha (Yakutia). The Ministry of Housing and Utilities and Energy of the Republic of Sakha (Yakutia), in the form of which two directions are laid down (housing and utilities, and electric power industry), was created in the most difficult times (the consequences of the economic crisis of 1998 and the collapse of the post-Soviet space), when there was a need to combine problems and adopt consolidated decisions. This was the wisest decision of the Government of the Republic of Sakha (Yakutia) at that time, in the conditions of the far north, there was only one task – to survive.

The decision made by the Government of the Republic of Sakha (Yakutia) to sell the unfinished Vilyui HPS-3 of OAO AK Yakutskenergo to OAO ALROSA decided the fate of OAO AK Yakutskenergo (the country’s electricity industry), having stabilized the financial situation of the company, the creation of the State Unitary Enterprise “Housing and Utilities of the Republic of Sakha (Yakutia)” stabilized the work of boiler houses in settlements and streamlined the system of work of housing and utilities of local government. At present, the State Unitary Enterprise “Housing and Public Utilities of the Republic of Sakha (Yakutia)” has practically become an energy industry company, the key activity of which is the generation and transmission of thermal energy.

Currently, as a result of the work carried out, the republic has clear boundaries for the division of responsibility between industries and business. Also, the boundaries of responsibility of municipalities have been clarified, according to Federal Law No. 131-ФЗ “On General Principles of Organization of Local Self-Government in the Russian Federation” of October 6, 2003. However, under the pressure of numerous problems of a housing and utilities nature, the Ministry directed all efforts at solving issues of housing and

utilities and thermal energy, and was transformed into a department that handles mainly and on a priority basis housing and utilities issues.

At the same time, another part of the republic's fuel and energy complex (coal and oil and gas sector) was subordinated to the Ministry of Industry of the Republic of Sakha (Yakutia), and then to the Ministry of Economic Development and Industrial Policy of the Republic of Sakha (Yakutia). Currently, it is subordinate to the newly created Ministry of Industry of the Republic of Sakha (Yakutia). As history shows, the direction of energy industry (FEC) has undergone many changes and reforms at the federal level as well. This is explained by the need for the control system to meet the requirements of the time. After the privatization phase of state enterprises was completed, the Ministry of Energy of Russia was created in 2008.³⁻¹⁰

The Ministry of Energy of the Russian Federation develops and implements national policy in the industry and regulates the fuel and energy complex, including on electricity, oil-producing and oil-refining industry, gas, peat, coal, and shale industry, products of their processing, renewable energy sources development of hydrocarbon deposits on the basis of production sharing agreements in the petrochemical industry, including law enforcement and public services functions, state property management in the production and use of fuel and energy resources.

The Government of the Russian Federation, having considered all the problems and the causes of the problems existing in the country's public utilities, decided to create a new Ministry of Construction and Housing and Utilities of the Russian Federation, which should manage all activities in the construction and housing and utilities of the country. The Ministry of Construction and Housing and Utilities of the Russian Federation was given the functions of developing and implementing national policy and legal regulation in the field of construction, architecture, urban planning, and housing and utilities, the provision of public services, management of state property in the field of construction, urban planning, and housing and utilities, including to coordinate the activities of the Federal Housing Development Fund, the state corporation – the Support Fund for the Reform of the Housing and Utilities Sector.

In the Republic of Sakha (Yakutia), there are the Ministry of Housing and Utilities and Energy of

the Republic of Sakha (Yakutia) and the Ministry of Construction of the Republic of Sakha (Yakutia), which separately solve the problems of housing construction, operation of buildings and the provision of utilities, often duplicating or making inconsistent decisions. In Yakutia, the process of "construction and operation of housing facilities" has been broken at the level of government, which results in a low quality of housing construction in northern conditions. The situation would be significantly improved provided the state control and management of the process "Housing construction and operation" being performed by a single governing body.

Conclusions

Proceeding from the foregoing, it turns out that there is a necessity of separating the management system by industry, by creating sectoral ministries corresponding to the structure of the Government of the Russian Federation. We can state the pressing issue of considering the creation of the Ministry of Energy of the Republic of Sakha (Yakutia). For the creation of the Ministry, additional expenses beyond the budget considered by the Republic of Sakha (Yakutia) will not be required, since the existing departments and divisions of the two ministries will merge.

Also, with the development of the fuel and energy complex, the risk of impact on ethnic groups and the ecology of the republic will be minimal than in other non-mining industries, such as gold and diamond mining. The reason for this is the minimum number of specialists for the implementation of projects, less impact on the environment than in the extraction of gold and diamonds. For a clear interaction with the Ministry of Energy of Russia, it is necessary to unify the structure of the Ministry of Energy of the Republic of Sakha (Yakutia) with the federal structure.

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Ethical Clearance: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. A study was approved by Central Ethics Committee of the Ministry of Health and Social Development of the

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