

# Economic and legal aspects of ensuring energy security of constituent entities of the Russian Federation

E.S. Melekhin, I.A. Kirshina

**The article touches upon the key economic and legal aspects affecting development of the power industry of constituent territories of the Russian Federation, namely it defines the role of improvement of the legal and regulatory framework as regards energy security components.**

**Key words: energy security, fuel-and-power industry, legal and regulatory framework, mineral resources base.**

## 1. INTRODUCTION

Energy security (ES) is for Russia a key element of the national security not only due to the current situation of overcoming the crisis in the economy of the country, but also in the view of intensification of integrating Russian economy and power industry into international structures, serving as a permanent factor of ever growing sensibility of the entire national economy and of the power industry to external economic and political influence. Taking into account that the fuel-and-power industry (FPS) share in the economy of the country as regards industrial production makes over 30%, in the revenue side of the federal budget - approximately 40% (including industry – over 60%), in the export volume – about 50%, efficient utilization of the unique power potential of Russia should serve as the basis for improvement in the Russian economy and a key factor for intensification of integration of Russia into the world community, defending its national interests.

Energy potential is the totality of the existing energy sources both non-renewable and renewable ones, taking into account the economic feasibility of their development in the future.

---

E.S. Melekhin, I.A. Kirshina, Gazprom Promgaz JSC, Moscow, Russia (e-mail: [e.melekhin@promgaz.ru](mailto:e.melekhin@promgaz.ru); [i.kirshina@promgaz.ru](mailto:i.kirshina@promgaz.ru)).

## 2. BASES OF ENERGY SECURITY OF CONSTITUENT ENTITIES OF THE RUSSIAN FEDERATION

### 2.1. The notion “energy security”

At the moment the notion of energy security has no clear definition in the scientific literature. Thus, taking into account the definition of energy potential, energy security at the level of a constituent entity of the Russian Federation will be as follows: the state of protect ability of RF subject’s economy on the basis of the sustainable use of energy potential as regards external and internal factors resulting in deterioration of power industry functioning and development.

The notion of “energy security” of the Russian Federation should be viewed in two aspects: on the one hand, as one of the strategic potential components of the state, or, in other words, lack of power industry may be deemed a danger for state functioning; on the other hand, implementing the standards of the Federal law “On security”, as the state of protect ability of the power systems from accidents and emergencies [1].

Taking into account the federal structure of the Russian Federation, energy security should be considered at three stages (fig.1):

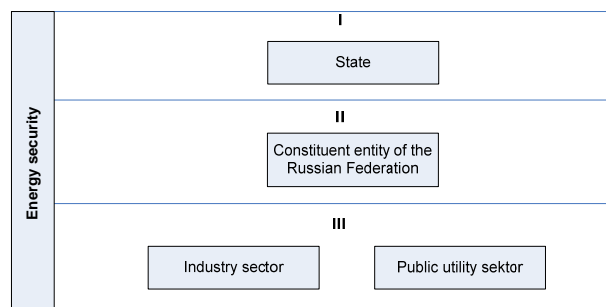


Fig. 1. Energy security hierarchy

## 2.2. Federal regulatory legal acts

The classification of the laws governing relations resulting from energy security as regards the two above-mentioned aspects is hardly feasible from the practical point of view in the law enforcement procedure. This is due to the fact that such legal regulations are relatively close and, taking into account the mining and power industry peculiarities, these aspects should be viewed together. Nevertheless, it is worth mentioning that for functional unification of the notions regarding legal categories, it is possible to structure separate regulations under the general principles for state control of corresponding relations. In this context, one may state that the laws governing relations concerning provision of required fuel and power resources (FPR) comprise the Law of the Russian Federation "On subsurface resources", Decree of the Supreme Soviet of the Russian Federation dated 15.07.1992 No.3314-1 "On the procedure for enforcement of the regulation on subsurface resources use licencing", Federal Laws "On environmental protection", "On production sharing agreements", "On the continental shelf of the Russian Federation", "Water Code of the Russian Federation" and other laws governing natural resources extraction, processing and use. In their turn, the regulations governing the state of protection of the power system from emergencies and accidents include the Federal Laws "On security", "On industrial security of hazardous facilities", "On waterworks security", "On ecological examination", "On protection of the population and territories from natural and man-made emergencies", "On licencing of specific activities" as well as other regulations.

One of the main regulatory and legal acts governing relations concerning energy security in the Russian Federation is the Federal Law "On security". This Federal Law lays the legal framework for ensuring protection of a person, society and state, identifies the security system and its functions, envisages the procedure for organization and financing of security agencies as well as control and supervision of their activities.

The Law particularizing the provisions of the Federal law "On security" is the Federal Law

"On industrial security of hazardous facilities". This Law states the legal, economic and social framework for safe operation of hazardous production facilities and is aimed at prevention of accidents at hazardous production facilities and ensuring of security of organizations operating hazardous production facilities for accidents localization and recovery. Provisions of this Federal Law apply to all organizations irrespective of their business legal structure and form of ownership that are operating in the area of industrial safety of production facilities at the territory of the Russian Federation.

Industrial regulatory and legal acts also contain norms aimed at governing relations concerning security.

Energy security of the country comprises energy security of its constituent entities. As far as Russia with its huge territory, diverse climatic and natural factors, various level of fuel resources availability and other characteristics is concerned, here the key importance belongs to regional aspects of energy security.

## 2.3. Impact of fuel and power resources availability and structure on energy security

Energy security of constituent entities of the Russian Federation is largely predetermined by mineral resources base (MRB) formation and sustainable use, primarily that of FPR.

Despite certain stability of the existing and perspective state of fuel and power supplies in the country in general, due to a number of objective causes certain regions experience deficit of energy resources. Such situations are quite real in the future that is why it is very important to timely identify regional energy security problems in order to compile recommendations for their elimination or at least for significant mitigation.

Energy security issue nature, set and peculiarities of hazards are to some extent different at the federal and regional levels. For instance, energy independence is not a problem for Russia in general, but for 40-45% constituent entities of the Russian Federation it results in two regional problems:

A) sufficiency (as regards capacity), availability (as regards FPR cost taking into account transportation) and reliability of interregional fuel and power links and supplies;

B) adequate level of self-sufficiency and balance of the region, as regards its own FPR.

All FPRs affecting ES are accounted for with the help of prognostic and reporting fuel and power balances for Russia in general as well as regional balances. During centralized planned economy period such balances were paid a lot of attention to: there were techniques for compiling and forming them. Nowadays it would be advisable to enhance the role of the fuel and power balances; they should serve as the basis for calculations and control of energy security of constituent entities of the Russian Federation. Prognostic and reporting fuel and power balances are influenced primarily by primary and multicomponent resources (fig. 2).

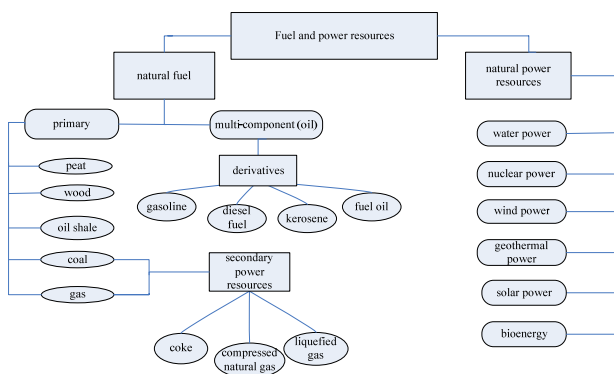


Fig. 2. Fuel and power resources structure and composition

Taking into account their exhaustibility and non-regenerability, even greater part in energy security of constituent entities of the Russian Federation and the country in general should be played by natural power sources, namely hydro and nuclear power.

According to the authors, regional energy security should be justified on the basis of classification of FPR used for fuel and power balances compilation.

#### 2.4. Economic and legal measures

Nowadays the state uses natural resources not efficient enough. There are no clear, transparent conditions for access of subsurface users to resources. The interests of the State being the

owner are often not protected to the full extent, and land users, in their turn, are not motivated to efficiently use resources allocated. At the same time the exhaustible FPR structure tends to deteriorate.

It is well known that the basis for the majority of raw materials used for various energy types generation is subsurface resources extraction of which is regulated by the Federal Law "On subsurface resources".

Provisions of article 2<sup>1</sup> of the above-mentioned Law are dedicated to energy security ensuring. Such an assumption is due to the special status of certain subsurface areas. Pursuant to this article, in order to provide for national defence and state security, some subsurface areas are viewed as federal subsurface zones. The list of federal subsurface zones is officially published by the federal authority for the state subsurface fund management under the procedure specified by the Government of the Russian Federation, in the official printed matter of the Russian Federation.

Despite the set of regulations governing relations concerning federal subsurface zones use, it is worth paying attention to the following problems:

- above-mentioned subsurface zones are located in the constituent entities of the Russian Federation. As a rule, reservation of such areas leads to the exclusion of vast areas from a constituent entity. Such a situation results in loss of significant funds from the budget;

- granting of the right to use federal subsurface resources areas without participation of a constituent entity of the Russian Federation violates constitutional rights and interests of such a constituent entity. Subsurface resources within the boundaries of the Russian Federation including underground space, mineral resources as well as power and other resources, are the state property (article 1<sup>2</sup> of the Law "On subsurface resources"). The issues of ownership, use and disposal of subsurface resources fall within joint competence of the Russian Federation and constituent entities of the Russian Federation. Thus, neglecting of this fact may result in loss by regions a significant part

of their industrial potential; exemption of constituent entities of the Russian Federation from participation in state subsurface resources find management is a reason for lack of corresponding powers for adequate control and supervision measures as regards sustainable subsurface resources use and protection as well as regards safe subsurface use operations [2].

In order to eliminate the above-mentioned contradictions concerning constituent entities of the Russian Federation, it is necessary to adjust the list of federal subsurface resources zones and reserved areas as well as to set the procedure for allocation and reservation of such areas observing the rights and interests of constituent entities. It is necessary to clearly distribute executive and regulatory functions among federal state authorities and state authorities of constituent entities of the Russian Federation.

It is advisable to transfer all the rest mineral resources (excluding federal and reserved areas) to constituent entities of the Russian Federation.

Pursuant to article 1<sup>2</sup> of the Law of the Russian Federation “On subsurface resources”, subsurface resources within the boundaries of the Russian Federation including underground space, mineral resources as well as power and other resources, are the state property. The issues of ownership, use and disposal of subsurface resources fall within joint competence of the Russian Federation and constituent entities of the Russian Federation. At the same time provisions of clauses 2<sup>1</sup>, 2<sup>2</sup>, 10<sup>1</sup> and other govern relations emerging as regards federal subsurface resources area and reserved zones allocation and use. Thus, it is advisable that federal property comprises those subsurface resources areas that are currently of federal value. The rest of the areas should be property of constituent entities of the Russian Federation. Solution of the mentioned subsurface resources use problems is directly connected with improvement of energy security of constituent entities of the Russian Federation.

Article 4 of the Federal Law “On gas supplies in the Russian Federation” stipulates the state policies in the area of gas supplies in the Rus-

sian Federation. Pursuant to this clause, in order to ensure unified approach to solution of issues concerning gas supplies in the Russian Federation, on the part of state authorities of the Russian Federation, state authorities of constituent entities the Russian Federation, local governments as well as organizations engaged in gas supplies in the Russian Federation, one of the state policies in the area in question is provision of energy security of the Russian Federation. Because of lack of certain powers, constituent entities are not motivated to implement such policies and thus resource-saving principles in subsurface resources use. In other words, existence of responsibilities of a constituent entity of the Russian Federation without determined rights will facilitate its transformation to a grant region.

### 3. CONCLUSION

Energy security covers a wide range of interrelated issues concerning the resource base of the power industry: impact of economic, social, political, foreign economic and foreign political, man-made and natural threats as well as power industry management shortfalls on fuel and power supplies to end users; sustainable use of fuel and power resources; a set of potential measures for energy security ensuring implemented not only in the power industry, but also in economic, social, political, foreign economic and foreign political areas, etc. Correspondingly, energy security is one of the key factors of the national power policy and plays an important role in taking decisions on fuel and power system functioning and development at the state and regional levels. It is due to the fact that currently the national fuel and power system makes nearly 30% of the gross domestic product of Russia, over 50% of the budget revenue, and 65-70% of all currency proceedings. However, at the moment the fuel and power complex is associated with a number of problems hindering both development of the complex, and that of constituent entities of the Russian Federation.

Currently the most important factors affecting FPS state are: legal framework imperfection,

lack of impetus for sound investments, significant wear of the fixed capital stock, resource base depletion, lagging of the reserve replacement growth rate from mineral resources extraction, irrational fuel and power balances structure, price disproportions and so on [3].

The main role in these factors belongs to formation and perfection of the legal base as regards energy security components. The key role of legal framework formation in the area of energy security consists in elimination and overcoming of contradictions, determination of a circle of responsibilities in energy resources supplies.

#### 4. REFERENCES

- [1] A.M. Karasevich, E.S. Melekhin et al. Basic aspects of energy security of Russian regions: study guide. Moscow, 2010.
- [2] M.V. Dudikov, I.A. Kirshina. Economic and legal aspects of ensuring energy security of the Russian Federation emerging during management of the subsurface resources use relations.//Surveying Bulletin, No.3, 2009.
- [3] Power strategy of Russia for the period of up to 2030// – Moscow: SE ESI, 2010.

#### 5. BIOGRAPHIC INFORMATION



**Evgeny Sergeevich Melekhin** – Deputy Director for Science in Gazprom Promgaz JSC, Doctor of Science, Economics, Professor. Member of the Mining Academy and Moscow Department

Presidium, member of the Russian Academy of Natural Sciences, Moscow, Russia. Main scientific interests: nature management economics, geological-and-economic and price assessment of mineral resources deposits, energy saving and energy efficiency in regions.



**Irina Arturovna Kirshina** graduated from Master Department of Gubkin Russian State University of Oil and Gas specializing in Energy Saving Economics in 2007. Graduate student of Gubkin Russian State University of Oil and Gas on the basis of Gazprom Promgaz JSC. Chief specialist of Research and Development Centre Energy Efficiency of Gazprom

Promgaz JSC, Moscow, Russia. Main scientific interests: energy saving and energy efficiency, energy security of constituent entities of the Russian Federation.