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### **The state and prospects of legislation development on alternative energy sources in the member states of Eurasian Economic Union**

**Abstract.** This article is devoted to analysis of existing world experience on the use of renewable and alternative energy types in the Eurasian Economic Union (hereinafter EAEU) countries. The authors carried out a detailed analysis of the experiences of the EAEU countries, especially Russia, Belarus, Kazakhstan and Azerbaijan. It is noted that each country has its own findings on this issue, which was justified by a number of historical, economic and political aspects. Moreover, the researchers concluded that despite the fact that energy is representing the interest of the industry to the economy of a single economy, there is no single document or standard. At the same time, a comparative analysis led to the conclusion that each country has accumulated considerable experience in support of the energy complex. This experience can be used in solving the national problems of each the EAEU's member countries.

**Key words:** renewable energy, alternative energy sector, non-renewable energy, law on renewable energy.

#### **Introduction**

The lack of natural resources will possibly lead to a gradual increase of energy prices. According to scientists, using alternative energy sources in Kazakhstan might prevent such course of events. Europe today, for instance, has actively implemented the implementation of renewable energy sources programs. Furthermore, the alternative energy sector should be developed because there are many remote areas in Kazakhstan, in which connection to the central power grid and gas pipeline is difficult. Meanwhile, the country is full of natural renewable energy sources. According to leading experts and economists, in the next decade the hydrocarbon deficit will probably have an impact on the global economy and the economy of Kazakhstan in particular.

The Declaration on Environment and Development of 1992 proclaimed that «the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations». Thus, the future of energy depends on the energy efficiency and use of renewable energy sources (hereinafter RES).

#### **Methods**

This article written based on use of historical and legal analysis. In particular, the stages of implementation in the world of alternative energy sources and the impact of the implementation on the EAEU countries are researched. Research of development experience of legislation in these countries allowed to bring a common denominator and to explore the prospects for its further development.

Statistical analysis allowed in a comparative aspect through the analytic data to track the impact of government measures on certain environmental and economic indicators of the EAEU countries.

#### **Main body**

Over the past 10 years the EAEU's member countries are eagerly working to provide the use of RES as a part of the total energy production. For example, in **Russia** the regulation of renewable energy sources is carried out by government bodies at the federal level and at the level of the federal subjects. The system of state regulation in the field of RES use include:

– Legal regulation, which includes development of legislative and other normative legal acts and

programs related to the use of RES;

- Management of development of renewable energy through the body, specifically authorized by the Government;

- Licensing, supervision and control of the use of renewable energy sources;

- Implementation of the system of standardization, certification and registration in the field of RES;

- Providing the international activities in the field of RES [1].

There is an extensive legal base in the field of RES in the Russian Federation, which is developed for the purpose of use and development of renewable energy sources.

In 2004 the first version of a new federal law on renewable energy sources was drafted. Measures stimulating renewable energy were determined in the document. Consequently, in November 2007 amendments were added to the Federal Law «On electric power industry» [2]. This was the first time when the legal provisions of legislative support for renewable energy development in Russia were documented [3]. The amendments specified the basic principles of a supporting system for renewable energy development. For example:

- Support mechanism should be harmoniously integrated: in the power sector reform process and its legislative support; and in the requirements of normative documents, which define the structure and rules of the electricity market, the current mechanism of administration;

- The mechanism should be included for generators not before but after the launch of the project and should be linked to the volume of the generated energy from renewable energy sources in order to prevent corruption and improve efficiency;

- Only that part of production of energy from RES should be promoted, which aims to meet social needs (i.e. energy production sold on the market);

- Support must be limited in time and be differentiated by type of generation;

- It is necessary to provide support for traditional energy during its transition to RES alongside traditional sources, i.e. the combined production of electricity from renewable and non-renewable energy sources (burning of coal and wood pallets, natural gas and biogas, etc.).

On the basis of and for the implementation of the amendments it was required to develop and implement special regulations, which could detail the provisions and requirements of the law. The regulations had to set and formulate specific renewable energy support mechanism for all

elements, which were adopted law. Therefore, for example, on the basis of and for the implementation of the Federal Law «On making amendments to certain legal acts of the Russian Federation in connection with the implementation of measures reforming the Unified Energy System of Russia», November 4, 2007, the next special regulation have been adopted:

In 2008 the Russian President signed a Decree № 889 «On some measures to improve the energy and environmental efficiency of the Russian economy» [4]. The Act stated that it was required to provide budget allocations to support and promote the implementation of renewable energy projects and cleaner production technologies during the formation of tariff policy and the 2009 federal budget project, for the planning period of 2010 and 2011 and for subsequent years. Thus, the provision of the decree becomes an order to the Government to support renewable energy.

For the first time the requirement for a federal law on renewable energy sources has been provided in the Energy Strategy of Russia for the period up to 2020 [5]. The new Russian energy strategy for the period up to 2030 distinguishes the nuclear power and renewable energy as the main strategic directions of development of the national energy sector [6]. However, the later strategy does not require a federal law on renewable energy sources.

Although there is an extensive list of documents ensuring the development of alternative energy sources in Russia, in reality they are poorly implemented and are mostly declarative.

**The Republic of Belarus** actively provides a systematic policy in the field of renewable energy and energy efficiency. The legal basis for activities in the field of energy saving is constituted by the country's Law «On energy saving» dated 15 July 1998 № 190-Z [7], as well as by Presidential Directive № 3 «Economy and thrift – the main factors of economic security of the state» dated 14 June 2007 [8].

In 2010 the Law of the Republic of Belarus «On renewable energy sources» entered into force to develop use of RES [9]. The document regulated public relations connected with: the use of RES in electricity production; the production of facilities necessary for the use of RES; the connection to the public power grid; the distribution of costs for grid modernization. In addition, producers got guarantees that governmental organizations will purchase all energy from RES produced and supplied by them to the state energy networks [10].

In 2011 the National program for the development of local and renewable energy sources

for 2011-2015 has been approved by the Decree of the Council of Ministers of the Republic of Belarus [11]. The document provides: the increased use of domestic energy resources; the development of new trends for the country in the field of energy for 2011-2015; and the greater share for local fuel and energy resources to 30%. Total expenditure for the implementation of the Program will be 3 454 550 000 US dollars. In the end of 2013 the document has been updated by the Decree of the Council of Ministers «On amendments and additions to some Decrees of the Council of Ministers of the Republic of Belarus» [12].

**Azerbaijan.** According to the state's policy up to 2020, the priority objective in the field of energy policy was to achieve 20% of renewable energy sources in the country's energy balance. Another one was to reduce gas emissions in accordance with the «20-20-20» principle. The Republic's program is similar to the European «Europe 2020» strategy [13].

The state program for the development of alternative energy was adopted in 2004 in Azerbaijan. In accordance with the National Strategy for the Use of Alternative and Renewable Energy Sources defined for the 2012-2020 year, the next specific tasks were included:

- The identification of the main areas of production of electricity and heat from renewable energy sources;
- The creation of the regulatory framework in the field of renewable energy sources;
- Preparation of stimulating activities on the use of renewable energy sources;
- The use of renewable energy in the economic spheres.

A central executive authority in the field of renewable energy and energy efficiency was established by the Decree of the President of the Republic of Azerbaijan dated 1 February 2013. The State Agency for Alternative and Renewable Energy is implementing the state policy in the field of renewable energy and carries out the state control in this area.

Despite of the fact that there is no separate legal act, which regulates relations in the field of alternative and renewable energy, the next existing Acts in the energy sector control and maintain certain questions: «On the use of energy resources», «On Energy», «On Electric Power Industry», «On electrical and thermal power stations».

Thus, few conclusions should be done from the analysis of the international regulation of alternative and renewable energy sources stated above. Firstly, coordinated measures for the

development of RES are taken on the State and the international levels through the creation of international organizations (e.g. IRENA) and the legal regulatory framework.

The international organizations should help address issues in the renewable energy sector by financing, consulting support and exchanging experience, technology and other information.

According to the International Energy Agency (IEA), in order to achieve sustainable development there should be the next the main directions in the functioning of world energy:

- Increasing energy efficiency, reducing energy intensity of the global economy, energy security;
- The formation of a new powerful and independent branch of renewable energy that can play a significant role in the greening of the fuel sector, and increase the share of clean energy in the global energy.

At present the present time these problems have been solved in many countries (both industrialized and developing), and international experience shows that the necessary condition for their solutions is the formation of effective incentives for renewable energy.

### Conclusion

Analyzing the experience of the EAEU's member countries in developing alternative energy shows that there is the «green» tariff for renewable energy sources in Belarus and Ukraine (wind, solar, biomass and small hydroelectric power stations). «Green» tariff (tariff for a connection) is an economic and political mechanism designed to attract investment in technology for renewable energy. There are three main three basic factors in the mechanism: a guaranteed connection to the net; a long-term contract to the purchase of all electricity produced by renewable energy sources; an increase to the cost of produced electricity.

The crux of the special tariffs for renewable energy sources is that the state or the population buys energy from businessmen on special higher rate. As a result, the construction of «clean» power stations becomes economically attractive. «Green» tariff is calculated according to the formula in which there is a defined coefficient for each subject. It depends on the type of renewable energy and characteristics of equipment and facilities.

Appropriate legal and regulatory documents are necessary to fulfill all the conditions. Those should disclose legal status and determine the

specific territorial requirements in accordance with the national strategy of the state in the field of renewable energy. The effective legal regulation and relevant standards are one of the factors for the successful existence of power plants based on renewable energy sources. The standards are a powerful tool for the exchange of technology and expertise, for the development of different markets and provide the coordination of renewable energy policies.

It is proposed to implement the following measures to promote renewable energy sources, which are set out in several legal documents and include the next:

– Preferential rates for the sale of power derived from RES (feed-in tariffs). There are several types of them: fixed price on electricity from RES; fixed surcharge to the market price of electric power; quotas on power from renewable energy sources;

– Special green certificates for energy from RES, which should be sold to conscious consumers who are ready to pay higher price;

– Tax benefits (together with taxes and fines on traditional energy);

– Preferential loans and subsidies to investments in renewable energy sources;

– Support researches in the field of renewable energy sources;

– Promotion, public support of RES, implementation of pilot and demonstration RES projects;

– Preparation and traineeship of professionals;

– Support industrial producers of equipment for renewable energy sources;

– Specific measures differentiated by country and direction of RES;

– International cooperation;

– Administrative support;

– Complex of measures to achieve target indicators.

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