

LEGAL REGULATION OF RENEWABLE ENERGY SOURCES USAGE

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ABSTRACT

The main goal of the work is to study the problems of legal regulation in the use and development of renewable energy sources. The authors established that in the world, regulatory legal acts are being developed in the field of the use of renewable energy sources. It was established that the main reasons for the development of renewable energy are ensuring energy and environmental security, preserving the environment, preserving the reserves of own energy resources for future generations and increasing the consumption of raw materials for non-energy use of fuel. The authors try to determine the place and role of renewable energy sources in the system of law.

Keywords: Renewable Energy, Fixed Tariff, Biomass, Legal Regulation, Alternative Energy Sources.

INTRODUCTION

Kazakhstan is one of the world leaders in diversity and number of mineral resources. As oil, gas, coal and other mineral deposits are most important components for the state economy and the regulation in these spheres is rather elaborated, the government historically paid less attention to the development of the alternative energy sources. For example, nowadays the majority of the electrical power plants in Kazakhstan are fired by natural gas, coal and oil-products.

The main direction of the state policy in Kazakhstan will become organization and holding of 'EXPO-2017' in Astana as part of the suggested topic 'Energy of the Future' which is focused on the ways of seeking quality changes in energetics, including first of all development of alternative energy sources and new ways of its transportation. Its name and content almost coincides with the name and recommendations of the report of the United Nations Secretary-General Consultative Group on Energetics and Climate Change 'Energy for Sustainable Development' (Expo 2017: Energy of the Future). One of the prioritized directions of electricity development and solution of environmental problems of Kazakhstan is currently use of renewable energy resources and implementation of the programs of energy and resource-saving. (Strategy 'Kazakhstan-2050').

In accordance with the Strategic Plan of the RK Development up to 2020 the share of RES in the total volume of electricity consumption should amount to 1.5% by 2015 and over 3% by 2020. The share of use of alternative energy sources in the total volume of electricity consumption is less than 1%. Considering the necessity of the environmental problems solution, one of the prioritized directions of the electricity development will become use of renewable energy resources (hydro-energy, wind and solar energy), unused potential of which is quite significant in Kazakhstan (Strategic Plan of Development of the Republic of Kazakhstan up to 2020, 2010).

Significant investments into electro energetics amounted to 50 bn USD by 2030 and about 100 bn USD by 2050 will allow creating the employment opportunities for people with scientific, engineering, technical and constructing specializations. Significant share of these investments up to 50% will fall at alternative energy sources, so new jobs will be created in the high-technology sector of renewable energetics.

The potential of hydro-energetics in Kazakhstan is about 30 bn kWh/year. Exactly this direction is being currently developed most actively in our country. The reason, except for natural potential, is relatively low cost of electricity generated by a hydro-electric power plant. It amounts to about 11-14 tenge/kW. Speaking about the natural potential of hydro energetics one may note that the most favorable conditions for construction of a hydro-electric power plant can be found at the rivers of Southern Kazakhstan. But in general out of 2000 rivers of the republic about 5%, i.e., about 100 rivers are suitable for construction of small hydro-electric power plants. Natural and geographic location of Kazakhstan provides wide opportunities for generation of solar energetics. The potential of solar energy approaches about 2500-3000 solar hours a year, while the energy of solar irradiation is equal to 1.300-1.800 kW/m²/year.

The objective of the research is study of legal aspects of use and development of renewable energy sources in the Republic of Kazakhstan and definition of the position and role of renewable energy sources in the legal system. Through investigation of the drawbacks of legal provision the conceptual conclusions for improvement and elimination of the barriers in the development of 'green energy' will be made.

LITERATURE REVIEW

Scientific problems of state and legal regulation of renewable energy sources are considered by the scientists in various branches of the Republic of Kazakhstan and foreign countries. One of the active scientific researchers is a western scholar Adrian Bradbrook (Bradbrook and Wawryk, 2002). He belongs to the category of scientists who considers the issue of renewable energy sources in the sphere of legal policy, while there are also authors supporting the idea of energy law (Lakhno, 2014), who asserts that state regulation of energetics should be concluded within energy law. There is also a Kazakh scientist who considers the issue of renewable energy sources in the aspect of environmental law (Yerkinbayeva, 2014) and as the sphere of renewable energy sources belongs to economic sector, here we should consider the relevant issues of state regulation of economy (Tikhomirov, 2000) and define the mechanisms of state influence (Gubin, 2005).

Also study of the legislation governing the sphere of energetics provokes interest among the Kazakh scientists (Dzhangabulova, 2016); legislative provision of use of renewable energy sources should be within the terms of environmental law (Yerezhepkyzy, 2015).

Use and development of renewable energy sources in the Republic of Kazakhstan is currently governed by the Law of Republic of Kazakhstan dated 4 July 2009 No. 165-IV 'Concerning Support of Use of Renewable Energy Sources' (2009).

The concept of the energy sector of North America in the regional sense appeared relatively recently and could be used only in its national meaning, that is, as a set of energy specialists of the three North American states. Integration processes that promote the unification, including the energy markets of these states, began to develop intensively only in the 90's. Last century (Roncallo, 2013). Nevertheless, if the regional interaction in the energy sphere between the United States and Canada could be observed already from the 1970s and the 1980s, the development of the integration processes of the Mexican energy sector with the energy complexes of the two neighboring North American states is still not being implemented in full. Because of the existence of a constitutional ban on the privatization of energy resources in Mexico (Ghosh and Prelas 2011).

MATERIALS AND METHODS

Use of renewable energy sources is currently relevant for the state due to a number of reasons. Development and improvement of renewable energy sources in the Republic of Kazakhstan are caused by the necessity in formation of a new energetic model, diversification of the technological base, replenishment of energy deficiency and solution of the world environmental problems. The world demand for renewable energy sources (RES) is constantly growing. By 2050 increase in their share in the global energetic balance is forecasted by 35%. Almost all developed countries are currently developing and implementing the programs connected with the alternative energetics.

To achieve the goals of the Kyoto Protocol, Article 2 states that each party should implement the following measures: 1) Improve energy efficiency; 2) conduct research on renewable energy sources and environmentally friendly technologies; 3) encourage reforms in relevant sectors to reduce greenhouse gas emissions; 5) to reduce methane emissions in the field of waste management; 6) share and share information. These requirements are mandatory for implementation in general, however, the way of their implementation remains at the discretion of the state. Predominantly, renewable energy issues are covered in such documents as the Johannesburg Plan of Implementation, Agenda for the 21st Century and the Gleneagles Climate Action Plan.

Efficient and rational use of renewable resources and energy in the Republic of Kazakhstan necessary for:

- Sustainable development and maintenance of the country competitive ability;
- reservation of irreplaceable natural resources, decrease in the anthropogenic pressure on the environment and greenhouse gas emission reduction;
- introduction and wide use of the best low-waste and resource-saving technologies in industry and agriculture;
- improvement of social and economic as well as ecological situation in the regions and cities of the Republic of Kazakhstan due to pollution abatement and improvement of the access to the energy resources (Yerkinbayeva, 2015).

In short, today use of RES has become an important and obligatory direction of the future energetics development. That's why efficient legal regulation is necessary. Inefficiency in the electric power supply centralization in the conditions of vast territory of Kazakhstan, occupying 2.7 mln. sq.km and low density of population (5.5 per/sq.km) caused significant losses of its energy at transportation.

RESULTS AND DISCUSSION

Renewable Energy Resources is a numerate and quantitative text covering subjects of proven technical and economic importance worldwide. Energy supply from renewables is an essential component of every nation's strategy, especially when there is responsibility for the environment and for sustainability.

Notably, the legislation of the Republic of Kazakhstan does not use term 'alternative energetics', but there is term 'renewable energy sources' instead of it. However, the concept of alternative energetics covers wider spectre in comparison with renewable energy sources.

Nowadays, for execution of Law of the Republic of Kazakhstan 'Concerning Support of Use of Renewable Energy Sources' the following regulations are adopted:

- Order of the Energy Minister of the Republic of Kazakhstan dated 31.03.2015 No. 256 'Concerning Definition of Accounting and Finance Centre on Support of the Renewable Energy Sources';
- Decree of the Government of the Republic of Kazakhstan dated 27 March 2014 No. 271 'Concerning Approval of the Rules of Definition of the Fixed Tariffs';
- Decree of the Government of the Republic of Kazakhstan dated 12 June 2014 No. 645 'Concerning Approval of Fixed Payment Tariffs';
- Order of the Energy Minister of the Republic of Kazakhstan dated 11 February 2015 No. 74 'Concerning Approval of the Rules of Monitoring the Use of Renewable Energy Sources';
- Order of the Energy Minister of the Republic of Kazakhstan dated 20 February 2015 No. 118 'Concerning Approval of the Rules of Definition of the Tariff for Support of Renewable Energy Sources';
- Order of the Energy Minister of the Republic of Kazakhstan dated 2 March 2015 No. 164 'Concerning Approval of the Rules of Centralized Purchase and Sale by the Accounting and Finance Centre of Electricity Produced by the Sites Using Renewable Energy Sources';

Canada is an exporter of electricity. Electricity intended for export is produced to a greater extent through hydroelectric power stations located in the provinces of Quebec, Monitooba and British Columbia. Compared to the oil and gas sectors, the electricity market in the US and Canada was integrated at a later stage, while its integration was quite slow. However, the opening of markets to create competitive conditions for them allowed, for example, a number of Canadian enterprises to request from the Federal Energy Regulatory Commission the status of a wholesale electricity seller and carry out transactions in the United States. Also, a number of regulatory companies were created, which were charged with controlling the tariffs for transportation services and determining cross-border tariffs for electricity, which also contributed

to the development of the turnover of these energy resources between the US and Canada (Roncallo, 2013; Kapitonov et al., 2017).

In Law of the Republic of Kazakhstan ‘Concerning Energy Saving and Increase in the Energy Efficiency’ dated 13 January 2012 the main direction of state regulation in the sphere of energy saving and increase in the energy efficiency are defined, such as: Technical regulation in the sphere of energy saving and increase in the energy efficiency; implementation of the balanced tariffs policy and price formation in the sphere of generation and consumption of energy resources; stimulation of energy saving and increase in the energy efficiency, including use of energy saving equipment and materials; implementation of state control over the efficient use of energy resources; promotion of economic, environmental and social benefits of efficient use of energy resources, increase of the social educational level in this sphere; ensuring statutory compliance in the Republic of Kazakhstan regarding energy saving and increase in the energy efficiency (Energy Saving and Increase in the Energy Efficiency 2012).

CONCLUSION

The international experience shows that the countries using renewable energy sources on wide scale, has strategic state policy for efficient use of renewable energy. For development of use of renewable energy sources in the Republic of Kazakhstan, first of all, it is important to have a good legislative base. The applicable RES legislation consists of a certain hierarchical structures. The main task of the RES legislation is creation of complex conditions of green technologies development. The problem is concluded in the fact that the legislator does not always consider the main mechanisms necessary for development of this technology. The applicable law on renewables has a great number of reference standards preventing from proper application of their provisions. Besides, there are no standards in the law that could influence the RES development. Although the measures of the RES development stimulation are defined, there are no mechanisms for their realization. It would be reasonable to define the legal method for stimulation of their addressees.

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