

THE ISSUES OF LEGAL REGULATION OF THE USE OF ALTERNATIVE ENERGY SOURCES ARE THE EXPERIENCE OF CHINA AND SOUTH KOREA

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Annotation: *In this article, the experience of China and South Korea in the use of alternative energy sources and its legal regulation is studied today, the shortcomings and achievements are analyzed, and the prospects of introducing the useful aspects taken from foreign countries in our country are considered. Also, the importance of the scientific research conducted in this regard, the decreasing reserves of natural resources around the world, as well as the scientific research conducted in our republic in order to achieve energy efficiency, including the use of renewable energy sources and its legal regulation, are given recommendations.*

Key words: *alternative energy, energy sources, wind energy, solar energy, nuclear energy, offshore wind energy, National Energy Administration, NDRC.*

INTRODUCTION

Today, the use of natural resources for energy purposes is gaining urgent importance on a global scale. This is caused by the growth of the world's population and the year-by-year increase in the human need for energy. The use of natural resources for energy purposes leads to a significant decrease in its reserves. This, in turn, requires an approach to human society based on the interests of future generations in the use of natural resources for energy purposes. Today, oil, natural gas, coal, and uranium are the main sources of energy in the world. The large-scale use of these energy sources leads to a decrease in their reserves. This means that in today's socio-economic development of our country, one of the tasks that must be solved is the issue of harmonizing market relations, social policy and the use of alternative energy sources and innovative technologies.

DISCUSSION AND RESULTS.

Alternative energy is the use of unlimited natural resources and phenomena, which are renewable energy sources, for the purpose of obtaining energy. Today, alternative energy sources can include water power, wind power, solar power, hydrogen power, nuclear power, and others. At present, on a global scale, serious attention is being paid to the use of wind and solar energy, which have a great advantage over traditional sources of energy in terms of their limitlessness and the absence of harmful emissions into the atmosphere.

Globally, solar and wind power are now leading the way in renewable energy capacity growth, accounting for 90 percent of the world's total renewable energy capacity growth in 2019. China and the United States are the leading countries in accelerating the development of wind energy, and in 2019, China, India, Japan, South Korea and Vietnam achieved the highest solar energy capacity. Asia is the continent's leader in capacity additions, accounting for 54 percent of total capacity growth in 2019, bringing its share of global installed capacity to 44 percent. Renewable energy capacity growth in 2019 was 6.6 percent in Europe and 6 percent in North America, respectively. The countries of the Middle East and Oceania also entered the rapidly developing regions in this field, and the rates of capacity growth were 18.4 and 12.6 percent, respectively. [1]

The Chinese experience

Energy production is the key to China's economic development. Coal and oil-based energy consumption has created serious energy security and environmental problems. In recent years, China has actively promoted the optimization of energy structures. With medium and long-term goals and policies, the renewable energy industry has developed rapidly, and China has reduced dependence on coal and become the world's largest renewable energy market.

China has made significant progress in the development of renewable energy sources in recent years. After the promulgation of the Renewable Energy Law in 2005 and its revision in 2009, China set up a standardization committee for hydropower, wind power and photovoltaic (PV) industries. published supporting policies. Certification, construction and exploration are continuously being strengthened to support the large-scale development of renewable energy sectors such as hydropower. In April 2020, China's National Energy Administration (NEA) released the Energy Bill (Energy Bill) for public comment, making it clear that the development of renewable energy will be given priority.

China is a leader in the production of renewable resources and aims to increase the share of renewable sources in energy production and consumption. China's renewable resources come mainly from hydropower, wind and solar power. China is one of the world's largest producers of wind and solar energy. Since 2013, China's solar energy industry has become the largest solar energy market in the world. According to an article published by the International Energy Agency, China is expected to contribute 40% and 36% of global growth in wind and solar power over the next five years, respectively. China is promoting renewable energy and is in the early stages of transitioning from fossil to renewable energy. The 14th Five-Year Plan, which defines economic and development goals for 2020-25, launched the idea of implementing an energy revolution in order to develop a clean, low-carbon, safe and efficient energy system.

China encourages foreign investment in renewable energy. The NDRC and the Ministry of Commerce jointly released an updated directory of industries for foreign investment incentives (the "Directory") for public comment. Renewable energy is listed in the directory as an encouraged area for foreign investment, allowing foreign investors to establish their own wholly-owned enterprises in the development of China's renewable energy sector. [2]

The South Korean experience

South Korea is Asia's fourth largest economy and its renewable energy market has been growing rapidly in recent years. Currently, South Korea generates about 70 percent of its electricity from coal and nuclear power, while renewable energy accounts for about 15 percent. South Korea remains one of the world's largest importers of coal, but given growing concerns about air pollution and greenhouse gas emissions, the country's reliance on coal power and an increase in the share of renewable energy are on the rise. is the main direction of the government's energy policy. In October 2020, the government announced a target of net zero emissions by 2050, and commentators expect a move away from coal to be key to achieving this. In May 2020, the government announced its 2020-2034 Plan, a long-term energy transition plan that calls for 40 percent of renewable energy by 2034. The share of liquefied natural gas (LNG) plants is expected to remain at 32. % and all coal-fired power plants will be closed, half of which are planned to be converted to LNG plants. The plan for 2020-2034 envisages closing nine nuclear power plants and reducing the share of nuclear energy in South Korea to 10 percent. However, like many other countries in the region, South Korea faces challenges in implementing renewable technologies due to land availability. Over 70% of the country is mountainous and therefore densely populated in low-lying areas that are ideal for renewable projects. Still, South Korea has great potential for renewable projects, particularly offshore wind, given its long coastline and favorable topography. The South Korean government aims to build 12 GW of offshore wind by 2030, up from the current 124 MW.

The renewable energy industry in South Korea is mainly regulated by the Electricity Business Act (also known as the Electricity Act) and the Renewable Energy Act. The Renewable Energy Act sets out key issues related to renewable energy projects. Support schemes for renewable energy projects include:

- The Renewable Energy Portfolio Standard Scheme (RPS) is the main support system for renewable energy projects and replaced South Korea's feed-in tariff scheme in 2012. The RPS scheme requires generators (both government and non-government owned) to have power generation capacity. more than 500 MW to produce a minimum portion of energy using new and renewable energy sources. As of 2019, the minimum share is 6%, rising to 10% by 2023.
- Renewable Fuel Standard (RFS) - the transport sector must use a specific mix of renewable energy in fuel (3% biodiesel by 2020).
- Mandatory installation of renewable energy sources for public buildings - public buildings must consume more than 21% of the total expected energy consumption with renewable energy sources (soon it is planned to increase this target to 30%) .[3]

On the subject, the leading specialists and scientists of the field studied the problems of climate change in the world, which damage the environment, and fuel and energy problems in countries that do not have fossil resources for fuel and energy, and eliminate them. are carrying out extensive research work.

Including world scientists Dj. Duffy and U.A. Beckman, B. Anderson, Dj. Twydell and A. Weir, R.W. Gorodov, V.E., N.V. Kharchenko and V.YA. In the pamphlets written by Ushakov [4,5,6,7,8]. ways of converting to energy, heating houses using solar energy, and providing hot water were considered. Special attention is paid to the dynamics of energy consumption and the modernization of energy facilities, the development of renewable energy, and the problems of environmental ecology.

Among the leading scientists of our country in this field, G.YA.Umarov, R.A. Zohidov, R.R.Avezov, K.Shodimetov, H.K.Zaynuddinova, [9,10,11,12] practical manuals for home heating using alternative energy sources, guidelines for meeting the demand for electricity, in our country prospects of using renewable energy sources and increasing their share in total energy production, drying agricultural products using solar energy, efficient use of solar energy in farms, and placement of crops in relation to the sun in providing soil radiation and heat in the placement of agricultural crops who explained in detail their comments on the proposal.

A number of practical measures are being taken to develop this sector in our republic. In particular, on May 21, 2019, Law No. ORQ-539 [13] on the use of renewable energy sources was promulgated. The main directions of the state policy in this field, the powers of the competent authorities, the rights and obligations of the producers of energy and renewable resources devices, state accounting of resources, produced energy and devices, the procedure for technical regulation, standardization and conformity assessment were defined in the document. The state supports the development of the sector, in particular, with benefits and preferences:

- energy producers from renewable energy sources from paying property tax for installing renewable energy sources devices (with a nominal capacity of 0.1 MW and more) and paying land tax on plots occupied by these devices from the moment they are put into use shall be released for a period of 10 years;
- producers of devices of renewable energy sources are exempted from paying all types of taxes for a period of 5 years from the date of state registration;
- goods received from natural persons for a period of 3 years from the month of use of renewable energy sources for property owned by individuals who use renewable energy sources (confirmed by the certificate of the energy supply organization) in residential areas completely disconnected from the current energy resource networks - property tax is not imposed;
- persons using renewable energy sources in residential areas completely disconnected from existing energy resources networks (confirmed by the certificate of the energy supply organization) are exempted from land tax for a period of 3 years from the month of use of renewable energy sources. [14]

When importing devices from renewable energy sources, the use of which significantly increases energy efficiency, tax and customs benefits can be granted to legal entities and individuals.

CONCLUSIONS

To sum up, almost all of the electricity and thermal energy produced today is obtained by burning organic fuels, i.e. burning gas, oil, coal, and the like. But these underground resources are non-renewable and their quantity is limited. Humanity is increasing year by year. Therefore, one of the big problems facing mankind is to find new sources of energy. The scientists of the world are working on these works and are achieving many wonderful results. Electricity in Uzbekistan is currently mainly obtained from non-renewable energy sources, which leads to the high cost of electricity and the depletion of our natural reserves. That's why we need to use new sources of energy more. This will leave the natural reserve of the land for future generations, and will also reduce the cost of electricity.

Also, it is necessary to introduce in Uzbekistan the updated catalog of industries for foreign investment incentives (the "Catalog"), which we discussed above, in the Chinese experience of the NDRC and the Ministry of Trade together for public comments. In the directory, renewable energy is listed as one of the encouraged sectors for foreign investment, which allows foreign investors to create their own wholly-owned enterprises in the development of the renewable energy sector in our country. Investors' attention is mainly focused on energy sources. When energy independence is achieved, the economy will develop. A large number of investors is one of the prospects for development.

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