RENEWABLE ENERGY SOURCES ARE THE NEED OF THE TIME

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Abstract: *In the article, effective use of renewable energy sources allows to reduce the amount of harmful gases released into the environment while saving underground resources and reserves. Therefore, it is analyzed that great attention is paid to the use of alternative energy sources in various sectors of the economy all over the world.*

Key words: *Energy, energy sources, green economy, natural resources, electricity, electricity, environmental and energy balance.*

Introduction. Increasing energy efficiency, expanding the use of environmentally friendly, non-traditional and renewable energy sources is becoming more and more important today. Because efficient use of renewable energy sources allows to reduce the amount of harmful gases released into the environment while saving underground resources and reserves. Therefore, great attention is being paid to the use of alternative energy sources in various sectors of the economy all over the world. Taking this into account, in recent years, large-scale work has been carried out on the implementation of the "green economy" system in the industrial sectors of our republic, the improvement of energy efficiency in the social sphere, the expansion of the use of renewable energy sources, the acceleration of innovative development, and the rational use of natural resources. Our experiences show that in the near future, the sustainable development of this or that country will be inextricably linked to the use of renewable energy sources in the energy network. At the current rate of energy consumption for industry and domestic needs, modern civilization has reached the maximum level of self-recovery of the environment.

Research and result. In modern times, the production and economic processes of market management have led the biosphere to a state of ecological crisis, and humanity to a resource crisis. Harmony of relations between man and nature did not happen in the last millennium. Capitalism as a system of production relations is in decline, but it continues to resolve many of its internal contradictions due to the growth of another internal space - cheap labor, the commercial market and the brutal exploitation of its natural resources.

Minerals, which are raw materials for energy companies, are constantly running out. It is well known that their stocks will be exhausted after one or two generations. Only the inexhaustible optimism of some politicians about the inexhaustibility of natural

resources and their desire to extract hydrocarbons from the depths of the Earth as quickly and as large as possible will deprive future generations of such useful minerals.

A possible way to reduce the negative impact of man on the environment is to introduce alternative energy sources into the sphere of consumption (use). The use of renewable energy sources does not disturb the ecological and energy balance on Earth. If other ways of obtaining energy resources are not found, humanity will have to learn to use non-conventional energy.

Many countries are actively pursuing research and development in the use of solar energy, wind energy, geothermal heat, sea waves and undercurrents, and ambient heat to meet their energy needs.

By using renewable energy sources, EU countries reduced energy consumption for domestic and industrial needs (hot water supply, building heating, water desalination, swimming pool heating, air purification) by 10% by 2000 (and by 2020 - by 20%). Electricity production using renewable energy sources increased by 14.2 percent. The active use of renewable energy sources has allowed these countries to reduce oil and gas imports by 30 percent over the years, as well as significantly reduce carbon dioxide emissions into the air.

The European Union has developed new standards for testing the quality and safety of solar devices by independent laboratories. Taxes and other economic incentives are given by the states for the use of renewable energy sources.

Heliotechnicians of the CIS countries have developed various industrial and domestic heliotechnical systems and devices in the national economy and are successfully using them, for example: a solar station in Crimea, high-temperature furnaces for obtaining pure and clean materials and alloys, solar panels that produce direct electricity, solar kitchens , air or water heating collectors, desalinizers (that is, salt water fresh converts to water), greenhouses, dryers for various purposes, agricultural enterprises, has experience in using solar energy in construction.

As the main building material, the production of concrete is associated with the consumption of a large amount of fuel and energy resources in the form of low-level heat. 12 million tons of fuel (conditional fuel) are used for the production of precast concrete products, and more than 6 million tons of fuel are used for the construction of monolithic structures. 35% of the total consumption of fuel and energy resources falls on regions with favorable conditions for the use of solar energy. The contradictions inherent in the production needs of the heat carrier and the non-continuous supply of solar energy limit the scope of its practical application in the construction industry. It makes up a high (17-21%) share of energy costs in the value of construction products, but the low cost of energy carriers prevents construction organizations from adopting its alternative types. is hindering.

The lack of a federal law regulating research and development on the use of renewable energy sources limits the implementation of energy conservation policies in the country. The use of only solar energy for heat treatment (thermal treatment) of concrete allows to reduce the consumption of traditional heat carriers by 40-50% annually in the production of reinforced concrete products and installation of monolithic structures.

Conclusion. Strategies for the development of renewable energy sources are being developed in Uzbekistan. Although the cost of renewable energy technologies is much higher than the costs of traditional energy production technologies, today it is possible to clearly identify the facilities where they are implemented. For Uzbekistan, these are devices designed primarily for low-power facilities of the local industry and construction sector, agricultural and social-household facilities, farms and greenhouses, and other facilities for obtaining electricity and heat. Today, the widespread use of renewable energy sources in remote mountainous and semi-desert areas, as well as in grasslands, can easily compete with conventional energy sources.

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