

## APPLICATION AND FUTURE OF RENEWABLE ENERGY SOURCES IN THE TERRITORY OF THE REPUBLIC OF UZBEKISTAN

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### Abstract:

This article explores a number of important issues related to renewable energy sources, including: the use and future of renewable energy sources; Using the energy of small water flows; Wind energy and possibilities of its use; Use of biomass energy; Covers chapters such as calculation of technical and economic indicators of devices based on renewable energy sources.

**Keywords:** Coal and gas, Wind energy, solar energy, water, energy.

### Introduction:

Recently, social and economic development of the population in our Republic has been paying great attention to meeting the needs of the people, improving the living conditions of the population, producing and delivering cheap and ecologically clean energy to the population. Today, we cannot imagine roads in cities and villages without a lighting system. At the time of the development of urbanization, the demand for electricity is growing.

For all practical purposes necessary for the effectiveness of alternative energy sources, social benefits, as well as economic competitiveness, energies including solar or wind are used. An international symposium was held in Delhi in collaboration with India. In 1973, an international congress was held in Nigeria

and in Paris in 1973 on the theme "The sun is at the service of man". All these symposia were the beginning of getting alternative energy. Decree of the President of the Republic of Uzbekistan dated 01.03.2013 No. PQ-4512 on measures to further develop alternative energy sources and dated 01.03.2013 "On the establishment of the International Solar Energy Institute" As part of the implementation of the decision PQ-1929, a solar energy institute was established on the basis of the scientific production association "Solar Physics". This paved the way for the development of alternative energy in Uzbekistan.

Problems: Today, the demand for conventional electricity generation is increasing all over the world. However, they emit a large amount of carbon dioxide (C<sub>2</sub>O) and carbon dioxide (CO) into the environment. These have a great impact on the flora and fauna. In terms of energy efficiency and stability, there are relatively few NPPs, thermal power plants, and hydroelectric power plants, but alternative energy sources are one of the current topics today. Currently, the demand for electricity in urban and rural areas is increasing. This causes problems in supplying a certain amount of electricity. This has a great impact on economic development. It has an impact on the development of private business and entrepreneurs in our country.



Renewable energy sources include wind, sun, water currents, biomass, and geothermal energy. Wind power plants.



The first wind power plants were developed in Denmark in the 90s of the 20th century. In 1910, several

hundred pieces of small equipment were built in this country. A few decades later, production and industrial enterprises began to be supplied with the required amount of energy from the energy produced by wind generators. In 1982, 1,280 wind turbines were sold on the Chinese market, and in 1986, more than 11,000

wind turbines were sold, which made it possible to provide energy to a number of districts in China that were previously unreached by electricity. 10 At the beginning of the 20th century, more than 250,000 villages in Russia, and especially in our republic, had wind and water mills with a total capacity of 1 million. was more than kW. 250 billion with the help of these devices. pound of wheat was threshed, which, in turn, made it possible to avoid the unnecessary hassle of spending time and money going to large mills in cities and large settlements located at long distances. Unfortunately, most of the wind and hydroelectric engines of the former USSR were dismantled in the 40s of the last century due to a ruthless attitude towards the use of natural resources. By the 1950s, these devices were completely obsolete. Solar power plants. Currently, most countries use solar energy for heating, and very few countries have wind generators as a source of electricity. At the same time, 2·1017 W of sunlight reaches the earth. This is 30 thousand times more than all the energy used by mankind on earth. Power plants based on the energy of water currents.

Another source of renewable energy is based on the use of river and sea current energy. In such power stations, current power stations are built in the river bed or on the shores of the seas to obtain electricity using the energy of the water wave flow. Several types of such power plants have been studied. For example, power plants operating on the basis of current pressure, moving with the help of water currents on the coast of the sea and rivers, or current devices with underwater screws (blades) placed under water directly along the coast are among them. In recent years, large-scale work has been carried out to improve energy efficiency and expand the use of renewable energy sources in the economic and social sectors of our republic. In particular, the long-term development of the oil and gas, electric power, coal, chemical, construction industry aimed at ensuring stable economic growth in the Republic and increasing the level of well-being of the population, continuously satisfying the demand for fuel and energy resources strategy is being implemented.



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