

Abdurahmanova Zarina
independent researcher of Fergana State University

MEASURES TO FURTHER DEVELOP ENERGY AND INCREASE ENERGY EFFICIENCY IN UZBEKISTAN

Annotatsiya: This article is devoted to measures to further develop energy in the country and improve energy efficiency in economic sectors and the social sphere. Strategies and actions aimed at improving the management of energy resources, the introduction of energy-efficient technologies and the optimization of energy use are considered. These initiatives contribute to reducing costs, increasing the sustainability and environmental friendliness of energy infrastructure, as well as improving the overall economic and social condition of the country.

Key words: energy, green economy, resources, energy infrastructure

The development of production in the country on the principles of the green economy is a new direction, which began to be focused mainly after 2017. Legal and regulatory framework in this direction has also been formed from the recent past. In particular, the decree of the president of the Republic of Uzbekistan "on the strategy of Action for the further development of the Republic of Uzbekistan" dated February 7, 2017 PF-4947 and "PQ 3012 dated May 26, 2017- Decree" on the program of measures for the further development of renewable energy in 2021, increasing energy efficiency in the sectors of the economy and in the social sphere, decree" on approval of the concept of Environmental Protection of the Republic of Uzbekistan for the period up to 2030 " No. 5863 of October 30, 2019, These are the decisions of the president of the Republic of Uzbekistan dated October 5, 2019 PQ-4477 "on approval of the strategy of transition to the green economy of the Republic of Uzbekistan in 2019-2030". These documents state that the transition to the green economy is from the strategic directions of the economy of Uzbekistan.

"In the strategy of the Republic of Uzbekistan for the transition to the green economy in 2019-2030, the following lines are defined as: on improving energy efficiency in the following base sectors of the economy: in the field of electro-energy: reconstruction and modernization of existing power plants by installing Steam-gas and gas-pipe devices, complete automation of processes and digitization of controls;

-introduction of new technologies in the production of thermal energy, reconstruction of outdated technological equipment in boilers, modernization with new computing equipment, application of systems for the use of heliocollectors in heating water in boilers;

-in the oil and gas sector; reduction of losses in natural gas extraction, transportation and redistribution processes in exchange for modernization of compressor stations, low-and medium-pressure gas distribution systems, as well as the introduction of effective systems such as hydrocarbon loss control (SCADA) systems, the use of alternative energy sources in oil and gas extraction facilities;

-on diversification of energy resource consumption and development of the use of renewable energy sources:

-in the field of renewable energy sources: liberalization of tariff policies related to the production, transportation, purchase of energy from renewable energy sources, support of enterprises producing equipment using such sources;

-in the field of construction and operation of buildings: implementation of state programs to improve the energy efficiency of buildings, reconstruction of multi-storey housing, revision of building standards at least once every 5 years, implementation of closed systems of heat supply through the system of tightening energy efficiency students, application of a system of incentives for energy conservation, introduction of tariffs.

Expansion of the production of vehicles, electric cars, cars with hybrid engines with improved descriptions in the areas of energy efficiency and environmental friendliness within the framework of the Euro-4 standards, gradual abandonment of hydrocarbon fuels, promotion of the development of electric transport system, creation of new transport and logistics systems, improvement of road infrastructure;

To mitigate and adapt to the consequences of climate changes, to improve the efficiency of natural resource use and to preserve natural ecosystems:

-in the field of aquaculture: prevention of further salinity and deterioration of the quality of the earth, construction and reconstruction of hydraulic structures, pumping stations and water reservoirs 498, the widespread use of information and communication technologies and innovations in aquaculture, the use of energy-efficient and water-saving technologies in irrigation of agricultural crops; in the field of Agriculture:

-restoration of degraded pastures, diversification of agricultural crops, elimination of contamination of water sources with agricultural waste, the creation of non-destructive processes, risk-resistant and suitable varieties and breeds of plants and animals, such as salinity, drought, climate whims; in the field of Solid Waste: full coverage of the entire population in the solid waste collection and decontamination service, the introduction of modern and effective systems for the collection and processing of solid waste, the use of solid waste as alternative energy sources.

The concept of Environmental Protection of the Republic of Uzbekistan for the period up to 2030 defines the following in the field of ecologization of the economy as ways to solve environmental problems that have arisen in the country:

-optimizing the use of resources and improving the efficiency of conservation activities, as well as creating a "green infrastructure";

-the transformation of the national economy in the direction of saving water use, promoting the development and widespread use of renewable energy technologies, as well as the construction of structures based on high energy efficient standards;

-implementation of a strategic environmental assessment mechanism of environmental aspects into public sector policy, including plans, programs and other strategic documents, as well as ensuring the integration of individual projects through environmental impact assessment;

-development of parameters for assessing the possibilities and potential capacity of ecosystems for regeneration, as well as the introduction of procedures for taking these parameters into account when planning the socio-economic development of the country;

-implementation of the system of environmental insurance and environmental audit of the activities of economic entities;

-to ensure the transition to international standards (UN European Economic Commission, EU, etc.) on priority areas determining the quality of the environment.

-expanding the application of environmental standards in the implementation of Public Procurement.

Along with the fact that the industrial development of Uzbekistan is calculated from countries that are not at high intensity, the level of the green economy in this network is counted from countries with low formation.

In addition to expanding the scope of industry in the Republic, there are huge opportunities for its development in the direction of greening, environmentalization. One such direction is the production of electricity from solar energy.

On August 27, 2021, the first solar power plant in Uzbekistan was launched in Navoi region, with a capacity of 100 MW. This enterprise produces 252 million kilowatts of electricity per year. This facility will be the basis for the reduction of greenhouse gases released into the atmosphere by 160 thousand tons, while saving 80 million cubic meters of natural gas consumption in one year.

On 24 May 2022, a 100 MW solar photovoltaic station built by Total Eren of France was launched in the Nurobad District of Samarkand region. The power station generates 260 million kWh of electricity per year and supplies more than 80,000 households with electricity. In addition, the launch of the station will save 78 million cubic meters of natural gas per year and prevent 500 thousand tons of harmful emissions into the atmosphere. This amount of saved gas will provide natural gas to all households in our country within 10 days.

Uzbekistan is considered a country rich in solar energy, where a potential of 525-760 billion kWh is concentrated. With this potential in mind, renewable-based electricity generation is projected to increase from 10% in 2018 totals to 25% by 2030.

As a result of inefficient use of energy, Uzbekistan suffers a loss of 4.5 percent every year in the Gross Domestic Product. As a result of the inefficient use of the country's energy carrier systems, a 4.5 percent share of GDP is lost annually. Losses are largely observed in the production of electricity, heating buildings. 40% of such capacity in Uzbekistan has expired, and as a result, there are many interruptions in power supply.

Experts believe that due to the lack of a policy that currently encourages the effective use of energy, Uzbekistan will undergo major reductions in oil and gas production and exports by the 2030s and will remain largely dependent on coal. Research shows that the potential of renewable energy sources in Uzbekistan is 270 million conditional fuels, which in turn is 3 times more than the country's annual need for energy-carrying resources. A large part of this potential corresponds to solar energy. In the last decade, the cost of solar energy has decreased by 80 percent in the world market, in Uzbekistan this figure will be more affordable, due to the abundance of sunny days, the remoteness of the sky.

In conclusion, it can be said that the level of development of economic sectors in the Republic of Uzbekistan on the principles of the green economy is not satisfactory [502]. Work has begun on this, but the networks and regions, within the regions, are growing at different levels and stages. The main thing is that the country has great opportunities for greening the economy. To do this, it will be necessary to increase scientific research in these areas, to widely attract investments in the industry, to introduce mechanisms to stimulate activity and production in these areas.

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