"GREEN" ENERGY IS THE FUTURE OF THE COUNTRY

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Annotation: this article focuses on the research on the elimination of energy problems and work on the basis of public-private partnership in co-operation with foreign investors, work to improve energy efficiency.

Keywords: efficiency, green economy, solar home, energy, renewable energy sources.

Introduction

Today, humanity faces new threats. The world's population has been steadily increasing for many years, while natural resources are rapidly diminishing. This, in turn, leads to the search for alternative energy sources around the world. This is why it is trying to encourage a shift towards green energy (renewable energy) around the world. There are two important reasons for this. Firstly, while the world is running out of energy generating resources, and secondly, due to the emission of harmful exhaust gases into the atmosphere, there is a drastic pollution of the atmosphere and global climate problems.

They emphasise the need to introduce the principles of 'green development' into the global economy in order to address the existing problems and correct the situation in the world economy. In this regard, serious reforms are also being carried out in our country under the leadership of the Head of State.

It is known that in 2019 Uzbekistan adopted a strategy to transition to a 'green economy'. The main goal of this is a sharp reduction in carbon dioxide consumption in our country in the next ten years, the introduction of environmentally friendly and energy-efficient technologies in all sectors of the economy, and the widespread use of renewable energy sources[1].

Analysis of literature on thetopic

Leading specialists, scientists of the industry conduct large-scale research work to study and eliminate fuel and energy problems in countries with climate change, damaging the environment, lack of fossil fuel and energy resources. Including.World scientists J.Duffy and W.A.Beckman, B.Anderson, J.Twidell and A.Ware, R.V.Gorodov, N.V.Kharchenko and V.Ya.Ushakov[5,6,7,12,13,14]. The main directions of development of renewable energy use, methods of conversion of solar, wind, geothermal, tidal energy, electric and thermal energy taking into account the latest achievements of technology and techniques, heating of houses with the help of solar energy and hot water supply are considered in these articles. Special attention is paid to the dynamics of energy consumption and modernisation of energy facilities, the development of renewable energy sources and environmental ecology, including views on the green development programme. Among the leading scientists of our country in this field G.Y.Umarov, R.A.Zakhidov, R.R.Avezov, K.Shodimetov, G.K.Zainuddinova, G.N.Uzakov, S. Каҳҳorov [8,9,10,11] and others, written practical manuals, describe in detail home heating

devices with the use of alternative energy sources, guidelines for meeting the demand for electricity, guidelines for the use of renewable energy sources in our country and the prospects for increasing its share in the total energy production, as well as recommendations for increasing the share of renewable energy in the total energy production, as well as recommendations for improving the energy efficiency of the country.

Research methodology

The article widely used methods of induction and deduction in analysing the views, opinions and judgments of scientists on research work on solving the problems of the energy sector of our country, the problems of energy resources in the world at present. On the basis of analysing the growth of demand for alternative energy sources and implementation of 'green economy' with the use of renewable energy sources in Uzbekistan, proposals and recommendations have been developed.

Analiz and results

According to studies, Uzbekistan annually loses at least 4.5% of its GDP due to the use of hydrocarbon energy - oil, gas and coal. In particular, 66% of main and distribution networks, 74% of substations and more than 50% of transformer stations are obsolete due to their operation for more than 30 years [4]. Significant funds are allocated for their restoration or modernisation. For this reason, the transition to 'green energy', which is economical and environmentally efficient, has proven to be a thousand times more effective. A vivid example of this is the fact that the whole world is moving along this path in the current energy shortage.

Uzbekistan is the first Central Asian country to consistently join this movement, and the green economy transition strategy adopted five years ago is a sign that our country is moving towards green progress. On 27 December 2023, our President participated in a ceremony dedicated to the launch of major joint projects in the field of green energy and expressed important thoughts on the strategic programme for the development of green energy in our country, which was aimed at 2030 [1,3].

Our president raised the question of where to start reforming the energy sector, we started first of all with consultations with leading specialists. We started first with consultations with leading experts from the World Bank, the Asian Development Bank and the Asian Infrastructure Investment Bank, and the European Bank for Reconstruction and Development. A solid legislative framework based on market principles was established in the energy sector by amending a number of legislative acts and adopting new decisions. Administrative-command mechanisms in place, abandoning monopoly and moving towards a modern managed, open and transparent system. The fact that favourable opportunities have been created for the private sector and foreign companies to enter our country.

Why do we pay so much attention to the promotion and development of green energy? First of all, we have set ourselves the goal of doubling the volume of industrial production by 2030 and raising such spheres as metallurgy, petrochemicals and machine building to a new level. We plan to implement

To achieve such lofty goals, we need guaranteed and stable energy resources like air. According to estimates, in the next six years, the demand for electricity in our country is expected to increase from the current 83 billion kilowatt hours to 120 billion kilowatt hours. more than 500 large industrial and infrastructure projects with a total value of $150 billion [2,3].

We will cover this need first and foremost with renewable energy.

Secondly, tireless research to mitigate the negative effects of climate change, which has become a global problem. We are actively promoting important proposals and initiatives at international summits. Within the framework of the UN Climate Change Conference in Dubai, it was agreed that the countries of the world will triple the number of the 'green' generation. Uzbekistan fully supports this initiative and the need to consistently continue its active investment policy to bring the capacity of green energy sources to 27 gigawatts by 2030.

Thirdly, the fact that there is an incredibly huge potential for green energy in our country. It is imperative that we make the most of this wonderful opportunity provided by the creator himself and channel it for the benefit of our people. In order to incentivise the industry and further its development, the Solar Home Scheme has been set up to provide soft loans and subsidies for the installation of solar panels, guaranteed purchase of the electricity generated. Although in 2023, solar panels have been installed in our country in 50 thousand flats and entrepreneurs. Considering that there are more than 7 million housing units in our country, we can separately say that this is a favourable environment for investors and the creation of a large market.

Fourthly, green energy certification is being widely implemented, with a special focus on green energy products worldwide. Uzbekistan is taking the first steps to bring green energy to Asian and European markets in the future through a clear plan and careful efforts.

For the first time, 2 solar plants in Karmana and Nurabad districts of Navoi region were launched with 100% foreign direct investment and are now contributing to the overall energy grid by generating green energy[15,16].

In addition, six large solar and wind power plants with a total capacity of two thousand four hundred megawatts have been connected to the grid. In particular, the Masdar company from the United Arab Emirates will launch the first phase of 3 solar power plants in Jizzak, Samarkand and Surkhandarya oblasts, as well as a modern wind farm with a capacity of 100 megawatts, which is under construction in Tomdinsky district of Navoi oblast [15,16]

The first generation of 400 megawatt solar plants in Bukhara and Kashkadarya regions will start with Gezhouba. The most remarkable thing is that all these projects are implemented on the basis of public-private partnership, at the expense of direct foreign investments.

It can be said that these projects, with a total cost of $2 billion, generate 6 billion kilowatt hours of electricity annually, saving two billion cubic metres of natural gas. This is evidenced by the fact that 2 million flats now have uninterrupted and guaranteed electricity supply. In the industry and service sector, an added value of 4 billion dollars will be created.Currently, it can be noted that our country is working intensively on projects for the construction of 22 solar and wind power plants with a capacity of 9 gigawatts, with a special focus on further improving the infrastructure to provide new generating capacity [2,4].

The country's population and incomes are growing. Under these conditions, the demand for energy resources will also increase. An important component of the 'green economy' is the creation and utilisation of renewable energy sources. Uzbekistan's potential in this area is quite high. According to the calculations of international financial institutions, the annual stock of alternative energy (especially solar energy) in the country is equal to 270 million tonnes of fuel equivalent. This is three times more than our real need. In addition, the implementation of green energy projects will make it possible to increase the share of

renewable energy sources in Uzbekistan by more than 3 times over the next decade. This means that it has unprecedented benefits for our economy[4].

At the same time, when we achieve further strengthening of overseas partners to establish close co-operation relations with domestic enterprises in the production of components and spare parts in the field of 'green energy', we will accomplish the tasks set before us.

Conclusions and suggestions

Instead of a conclusion, we can say that the country's rapid transition to 'green energy' is primarily important for ensuring the ecological balance in the region, rational use of natural resources and meeting the energy needs of the population.

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