

KEY ASPECTS OF UKRAINE'S ENERGY AND ENVIRONMENTAL STRATEGY FOR ACHIEVING A SUSTAINABLE EFFICIENT ENERGY FUTURE

Zaichenko S. V., Trachuk A. R.

KPI named after Igor Sikorsky, atrachuk1990@gmail.com

Ukraine, as a country with great potential in the field of renewable energy sources (RES), has an important task in front of it – to actively develop this sector to ensure a sustainable energy future. Strategic attention to RES opens wide opportunities for reducing energy dependence, improving the state of the environment and encouraging innovative economic growth.

However, the transition to the use of renewable energy sources is a complex task that requires not only technological innovations and financial investments, but also strategic planning and support from the state. In this context, it is worth carefully considering the key aspects of RES development in Ukraine in the long term [1].

We will explore the country's potential in this field, consider legislative regulation and financial opportunities, as well as get acquainted with the latest technologies and global trends affecting the development of RES in Ukraine. Our goal is to reveal the potential of RES as a strategic direction for sustainable energy development of the country and find ways to achieve this goal.

We invite you to join the further study and discussion of this important topic, which is of great importance for the future of the energy system of Ukraine and ensuring its sustainable development.

In the modern world, natural and energy problems are becoming more and more relevant. The development of renewable energy sources (RES) in Ukraine is defined as a key priority in view of environmental protection and sustainable energy development. Let's consider the main aspects of this strategy in the long term [2].

- RES potential – Ukraine has significant potential in the field of RES, such as solar, wind, hydro and biomass energy. Taking into account the solar potential of Ukraine, which is about 1600 kWh/m² per year, and the presence of large reservoirs for hydropower, the country has all the prerequisites for the active development of RES.

- legislative regulation – an important stage is the creation of a favorable legislative environment for the development of RES. This includes establishing guaranteed tariffs for renewable energy, simplifying permit procedures and creating incentives for investors.

- financial opportunities – investments in RES require significant financial resources. The government should consider the possibility of creating special financial mechanisms, such as grants and subsidies, to support the development of RES and attract investments.

- technological development – taking into account the rapid pace of technological progress, Ukraine should actively introduce new technologies in the field of RES, which will contribute to increasing efficiency and reducing the cost of energy.

- global trends – when formulating a RES development strategy, Ukraine should take into account global trends, such as the growing demand for "green" energy and the development of smart energy management systems [3].

In general, the development of RES in Ukraine is of strategic importance for ensuring sustainable energy development and reducing dependence on harmful energy sources. Properly directed efforts to ensure a favorable legislative environment, financial support and technological development will help Ukraine to use its potential in the field of RES and achieve a stable energy future.

Conclusions. The analysis of key aspects of the development of renewable energy sources (RES) in Ukraine in the long term emphasizes the importance of strategic planning and financial support in this direction.

1. The need for strategic planning in this area emerges from the analysis of the state and prospects of RES development. The state should actively develop and implement programs aimed at supporting RES and creating a favorable environment for their development.

2. One of the key aspects of the successful development of RES is the provision of financial support. The state should create special financial mechanisms and tools that will promote investment in this sector, reducing costs and risks for investors.

3. The development of technologies in the field of RES in Ukraine has great potential for increasing the efficiency and competitiveness of this sector. It is important to constantly introduce new technologies and methods of energy production, thus ensuring sustainable development and high quality of the energy system.

4. Taking into account global trends in the field of energy will help Ukraine more effectively realize its potential in renewable energy. World trends, such as the growing demand for "green" energy and the development of energy-efficient technologies, should be taken into account when developing strategies and programs in this area.

5. Involvement of the public and the creation of a favorable information environment are key to the successful development of RES in Ukraine. Wide public awareness of the advantages of RES and support for social initiatives will contribute to the further development of this direction.

1. Ivanov I. (2023). Renewable Energy Development in Ukraine: Current Status and Future Prospects. Renewable Energy Journal.

2. Petrova A., et al. (2022). Strategic Planning for Renewable Energy: Case Study of Ukraine. Energy Policy Review.

3. Kovalenko O. (2024). Financial Mechanisms for Supporting Renewable Energy Projects in Ukraine. International Journal of Sustainable Energy.