

STATE OF ENERGY AND PROSPECTS FOR THE DEVELOPMENT OF RENEWABLE ENERGIES IN UKRAINE

Dudnikov S. M., Ph.D., associate professor, Моголівець А.С., master's student,
(SBTU, Kharkiv, Ukraine)

State Biotechnological University

Представлено сучасний стан та пропозиції щодо відновлення паливно-енергетичного комплексу України.

Ukraine's power infrastructure suffered over 60% destruction during the large-scale invasion. In the first eight months of 2024 alone, total losses in power generation exceeded 9 GW. The largest decline in production capacity was recorded in the field of heat and hydrogeneration, as reported by the Minister of Energy of Ukraine Herman Galushchenko [1]. Therefore, Ukraine is forced to import up to 4.6 billion cubic meters of natural gas before the start of the next heating winter period, November 1, 2025. This was reported by Dmytro Abramovich, a member of the board of Naftogaz Group.

Significant damage to thermal power plants contributes to the introduction of modern approaches to energy production using low-carbon technologies [2].

The main principles of the state strategy in the field of renewable energy sources are, first of all,:

- increasing the volume of energy production and consumption;
- improving the local and global state of the environment

Renewable energy sources can be the basis for rebuilding the energy system of Ukraine. Thus, only the technically achievable energy potential of biomass in Ukraine, according to BAU estimates, is estimated at the equivalent of 26 billion cubic meters of gas, [3].

According to the National Renewable Energy Action Plan for the period up to 2030, Ukraine aims to achieve at least a 27% share of renewable energy, which will strengthen the country's energy and economic autonomy, reduce dependence on imports of traditional energy carriers, reduce greenhouse gas emissions, contribute to environmental protection, and reduce the energy intensity of the gross domestic product.

List of references

1. Розпорядження від 13 серпня 2024р. № 761-р .Про затвердження Національного плану дій з відновлюваної енергетики на період до 2030 року та плану заходів з його виконання. <https://zakon.rada.gov.ua/laws/show/761-2024-%D1%80#Text>

2. Renewable Energy Progress Tracker Explore electricity, heat and transport data from Renewables 2023 Last updated 11 Jan 2024. Available at: <https://www.iea.org/data-and-statistics/data-tools/renewable-energy-progress-tracker>

3. Атлас енергетичного потенціалу відновлюваних джерел енергії України: Видання третє, оновлене/за заг. ред. С.О. Кудрі. – Київ: Інститут відновлюваної енергетики НАН України, 2024. – 56 с. https://www.ive.org.ua/wp-content/uploads/atlas_2024_publication.pdf