

ENSURING ENERGY EFFICIENCY OF THE ECONOMY: POSSIBILITIES OF IMPLEMENTATION OF FOREIGN EXPERIENCE

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The author's definition of energy efficiency of the economy has been proposed in the article. The main indicators of energy efficiency, which determine the rating of Ukraine among other countries of the world, have been analyzed. It is emphasized that the introduction of martial law in Ukraine and the full-scale war significantly affected the energy efficiency of Ukraine's economy due to the destruction of many energy infrastructure facilities. Attention is focused on the need to organize a systematic and standardized increase in the efficiency of the use of energy resources in domestic production systems. Based on the use of statistical information of the World Economic Forum, the indicators of energy saving efficiency of the countries of the world and their rating have been given. The foreign experience of using modern smart technologies and the main tools for ensuring energy efficiency of the economy have been studied. The authors stress that energy efficiency contributes to the reduction of energy consumption. The growing world population and rapid economic growth lead to increased energy consumption. However, many countries face challenges related to limited resources and growing energy dependence. Energy efficiency can help reduce dependence on energy imports and provide a more sustainable and efficient economy. The expediency of implementing modern technologies and tools of ensuring energy efficiency as a factor in the future revival and development of the economy of Ukraine has been proven. It has been substantiated that in modern conditions, Ukraine needs to change the policy of energy consumption and energy supply as soon as possible, maximizing the consumption of fuel and energy resources, which the country is rich in (coal, nuclear fuel, renewable sources), and accordingly reducing the consumption and import of natural gas - the most expensive and scarce resource. It is noted that in order to ensure the energy efficiency of residential construction, it is necessary to lay down energy-saving technologies and new energy-saving methods at the design stage. The introduction of martial law and full-scale war significantly affected the energy efficiency of Ukraine's economy due to the destruction of many energy infrastructure facilities. A decrease in energy efficiency can have serious consequences for the country's economy, in particular, an increase in the cost of energy resources, a decrease in the competitiveness of enterprises, and a threat to the stability of electricity supply to the population and industry.

The destruction of energy infrastructure facilities, such as power plants, transformer substations, gas pipelines and oil pipelines, can lead to a decrease in energy production capacity and a deterioration in the quality of supply. This can cause problems with electricity supply, heating, education, maintenance of industrial enterprises and infrastructure. In connection with the explosion by the Russian occupiers of the Kakhovskaya HPP, the Ministry of Energy initiates the decision to increase electricity imports from the EU to 2 GW. On the other hand, military actions on the territory of Ukraine may lead to a decrease in investments in the field of energy efficiency and the development of renewable energy sources, priority is given to military needs and the restoration of damaged infrastructure.

In this regard, to increase energy efficiency after the war in Ukraine, the reconstruction and restoration of energy facilities using modern smart technologies to ensure a reliable supply of electricity are particularly important. Based on the results of the analysis and taking into account the experience of foreign countries, an algorithm for ensuring energy efficiency in Ukraine has been proposed.

The proposed algorithm for ensuring energy efficiency in Ukraine may include the following steps:

- Analysis of the situation: conducting a detailed analysis of the current state of energy efficiency in Ukraine, including an assessment of resource use, energy production, consumption and system efficiency.

- Setting goals: setting specific energy efficiency goals, such as reducing energy consumption by a certain percentage during a certain period, increasing the use of renewable energy sources, etc.

- Strategy development: developing a comprehensive strategy for energy efficiency, which includes measures to improve the efficiency of energy production, transmission and consumption. The strategy should take into account the needs of different sectors, including industry, construction, transport and households.

- Legislative support: developing and adopting legislation aimed at supporting energy efficiency, including incentive mechanisms, tax incentives and regulations governing energy efficiency standards.

- Implementation of measures: taking the necessary steps to implement the energy efficiency strategy, including legislative and regulatory measures, support for innovative technologies, training and education on energy efficiency, financial support, etc.

- Monitoring and evaluation: providing a system for monitoring and evaluating the results of energy efficiency measures; determining performance indicators that allow to assess the achievement of goals and make timely adjustments to the strategy, if necessary.

- Financing: allocating financial resources to support energy efficiency projects, including government subsidies, credit programs and investment incentives for the private sector.

- Information and education: conducting informational and educational events to raise the awareness of the public, enterprises and organizations about the advantages of energy efficiency, methods of reducing energy consumption and environmental benefits.

- Technological solutions: implementing new modern technologies and innovations aimed at reducing energy consumption, using renewable energy sources and increasing energy efficiency in various sectors of the economy.

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