UKRAINIAN EXPERIENCE AND NEW ENERGY CHALLENGES DURING THE TIMES OF GROWING GLOBAL CONFLICT

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ABSTRACT
The article substantiates the relevance of switching approaches to the formation of energy security of countries in the times of growing global conflict. The structure and dynamics of energy production and consumption in the European Union and Ukraine considering traditional and renewable sources until 2020 were analyzed. The structure of the energy balance of Ukraine and its difference from EU countries were described. Despite the growth of energy production from renewable sources, a high level of dependence (more than 50%) of EU countries on imported traditional energy carriers from third countries, especially, the Russian Federation, was revealed. The negative impact and consequences of EU’s dependence on energy supply from the aggressor country and the need to develop and diversify sources of energy supply in the national context was substantiated. The experience of processing and energy utilization of waste in various European countries was studied, in terms of the biogas production and garbage incineration. The need to expand the practice of using solid household waste as a source of energy to increase the national energy sustainability of countries with strict compliance of environmental legislation was substantiated. European practices of energy production based on household waste incineration were analyzed. It was revealed that despite the implementation of circular economy standards, up to 50% of the total volume of generated household waste is incinerated in the EU countries, thereby covering the cities’ need for
heat and electricity. Modern technologies of energy utilization of household waste and generalized European practices of slag use, which reduces the cost of energy production, were studied. A comparison of the volumes of energy utilization of household waste in the EU and Ukraine revealed the potential of energy supply of the country's economy. It has been stated that despite the exclusion of waste-to-energy waste incineration from the list of sustainable practices, the process of building waste incineration plants based on advanced waste disposal technologies persists in EU countries. The reasons for the low level of waste energy utilization in Ukraine have been investigated. Circumstances and conditions, the formation of which will allow understanding the energy potential of solid household waste and increase the level of energy independence of Ukraine, were generalized. It was concluded that in the conditions of significant investment costs in the construction of waste incineration plants, the main factors for ensuring the efficiency of their activity are the stability of sources of waste receipt and full loading of the plant's production capacity.

Keywords: alternative energetics, energy potential of household waste, waste incineration, incinerator, household waste, biogas.
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