

PROBLEMS AND PROSPECTS FOR USING AGRIBIOMASS FOR ENERGY PRODUCTION IN UKRAINE

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Purpose of the work is to identify main obstacles to the use of biomass of agrarian origin for energy in Ukraine and to develop recommendations for overcoming these obstacles.

The Energy Strategy of Ukraine until 2035 sets the following objectives for the contribution of biomass and waste to the total supply of primary energy: 6 Mtoe in 2025, 8 Mtoe in 2030, and 11 Mtoe in 2035. Analysis of biomass resources available for energy production in Ukraine shows that achievement of these goals is possible only if agribiomass is included in the fuel and energy balance of the country.

According to 2018 data, the energy potential of primary residues and by-products of crop production is over 9 Mtoe, which is more than 41% of the total biomass potential (about 22 Mtoe). The full utilization of the potential of agribiomass can cover about 18% of the final energy consumption in Ukraine that amounted to 50.1 Mtoe in 2017.

At present, the practical implementation of the energy potential of biomass of agrarian origin is not developing fast enough. Among the main barriers one can highlight lack of equipment for the harvesting of by-products of plant growing (in particular, corn stalks), complexity of establishing the whole "harvesting-supply" chain, peculiarity of fuel characteristics of agribiomass, etc. In addition, some soil scientist emphasize the potential risks for soil due to removal of crop residues from the field for energy purposes. Concerning the latter, it should be noted that this issue has been thoroughly taken into account in the assessment of the energy potential of agribiomass in Ukraine.

Overcoming of the existing barriers and practical utilization of the potential of biomass of agricultural origin for energy production in Ukraine will be substantially facilitated by the implementation of the international project "Promoting the penetration of agrobiomass heating in European rural areas - AgroBioHeat" (2019-2021). The project is funded by the EU research and innovation program Horizon 2020. Bioenergy Association of Ukraine is a member of the project consortium on Ukraine's part.

Conclusion. Biomass of agricultural origin is an important part of the bioenergy resources of Ukraine, which can significantly increase the country's energy security. It is necessary to work systematically in order to overcome the existing obstacles and create favourable conditions for the development of this area of bioenergy.