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**THE USE OF BIOGAS IN THE MODERN WORLD**

**Abstract.** The paper substantiates the relevance of using biogas as an alternative energy source. It is shown that the production of biogas is becoming increasingly attractive to investors, as it can guarantee an additional source of income from the sale of organic fertilizers and a reduction in fees for the safe (harmless) disposal of organic waste.

**Keywords.** Biogas, biogas technology, man-made footprint, efficiency improvement.

The peculiarity of the use of biogas in the energy sector is determined by its heterogeneity, as well as a variety of ways to obtain energy. Various solid substances (for example, wood chips, pellets, straw), as well as liquid (for example, bioethanol, biodiesel) and gaseous (biomethane) can act as biofuels. In the EU, it also includes an organically degradable part of municipal waste. Of the total volume, more than 2/3 is solid biomass, 1 Here and further in the article, EU data are given taking into account the UK, which continues to participate in EU programs until the end of 2020 [1].

Represented mainly by wood fuel and agricultural waste, liquid biofuels and biogas account for 12 and 13%, respectively, and 7% – for the organic part of municipal waste (Fig. 1). Historically, biofuels have been used on a household scale for quite a long time, but with the beginning of state incentives for renewable energy, there was an impulse to use it in industrial scale [2]. Increasing the share of renewable energy in the energy sector is one of the most important directions of the EU environmental policy. The EU Directive on the promotion of the use of energy from renewable sources 2009/28/EC sets individual targets for the share of renewable energy in the energy sector, which should be achieved by 2020 (20% for the EU as a whole), as well as a total of 32% for the EU as a whole by 2030. The Directive identifies three areas in the energy sector: electric power, transport and heat supply. Each has its own peculiarities in the strategy and methods of greening [3]. As for biofuels, their application and significance in each of these three areas differ. It is also important to take into account the heterogeneity of the energy farms of the EU countries, which affects the differences in the use of biofuels.

Currently, biogas is increasingly being used, many industrial organizations, both small and large, are considering the possibility of using recycled organic raw materials to produce biogas as an additional or main fuel [4].

For the successful start of the development of biogas energy in Russia, it is necessary to take the following measures. Develop a program for the development of biogas energy. The adoption of such a program will make it much easier to attract attention to the financing of projects [6]. The launch of several projects in the field of biogas technologies that will demonstrate the most effective and profitable approaches for enterprises to use various types of waste as an energy source for their future use throughout the country.

In the conditions of rapid growth of industrial technologies, an increase in the volume of industrial and household waste, a significant part of which is organic, the possibility of using such waste is very relevant [7].

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