

THE USE OF RESIDUAL MUNICIPAL SOLID WASTE AS AN ALTERNATIVE FUEL

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Abstract

The relevance of the work is determined by the war of the Russian Federation in Ukraine and the decision of the leading countries of the world, the EU and Ukraine to abandon energy dependence on energy from the Russian Federation. An analysis is provided of the main directions for reducing the European Union's dependence on Russian natural gas by a third by the end of 2022, in particular, the development of the Waste-to-Energy market in the EU and other leading countries of the world. The main ways are presented and computational investigations of the possibility of substitution of certain amounts of natural gas with artificial fuel from residual MSW are carried out.

Based on the performed calculations, the authors formulated proposals for the feasibility of constructing facilities for energy use of residual MSW in different regions of Ukraine, as well as connecting them to the systems of centralized heating in Ukraine. The paper proves the necessity of building Waste-to-Energy power plants in the largest, large and big cities of the country. The ecological expediency of recovery of residual waste is shown.

Keywords: Natural Gas; Residual MSW; Waste-to-Energy; Solid Waste Incineration Plant with Heat Recovery; District Heating.