

## SECONDARY ENERGY RESOURCES IN THE POWER INDUSTRY OF UKRAINE

**Artem Evtushenko, N.M. Fialko**

*Institute of Engineering Thermophysics, National Academy of Sciences of  
Ukraine, Kyiv, st. M. Kapnist, 2a, tel +38 (044) 456-91-71, [nmfialko@ukr.net](mailto:nmfialko@ukr.net)*

The widespread use of secondary energy resources (SER) is one of the important ways to improve the efficiency of the energy sector of Ukraine. Along with this, their use is associated with the possibility of a significant reduction in the influence of power energy on the environment.

The **purpose** of the work is to analyze the volume of output and the level of use of SER in Ukraine.

**Results.** The dynamics of the output of combustible secondary energy (CSER) and high-potential thermal SER (HTSER) in the period from 2010 to 2015. (Official information for subsequent years is not available, because it has ceased to provide forms of statistical observations). There is a generally similar nature of the dynamics of change in the output of CSER and HTSER, namely the growth from 2010 to 2011, with a further drop to 2015. According to statistics in 2015 compared with 2011, the output of GWER decreased by about 1.7 times, and HTSER by 2 times.

The data on the output of various types of CSER in the specified period. In particular, a rather sharp decrease in the output of blast furnace gas (by 1.5 times) and a slight decrease in the output of converter and ferroalloy gas with an increase in the volumes of logging output (almost doubled) and woodworking outputs by 13.5%.

Analyzed statistical data on the levels of use of secondary energy resources in Ukraine. Indicates a sufficiently high degree of their use in the period under review. At the same time, it is noted that the level of use of both CSER and HTSER insignificantly varied over time and amounted to approximately 86.4% for CSER, and 95.7% for HTSER. Examines the levels of use of different types of CSER and noted their significant difference. So, for 2015 these levels were: for blast furnace gas - 92.8%, for ferroalloy - 29.4%, for converter gas - 1.4%. There is high level of use of wood waste (99.1%).

**Conclusions.** Volumes of annual output of SER in Ukraine for the recent period have significantly decreased while maintaining a relatively high overall level of their use. Nevertheless, for the near future, the use of secondary energy resources remains an important factor in energy saving and requires attention both in terms of technical support and state support.