Environmental Engineering and Management Journal

November 2015, Vol.13, No. 11, 2725-2731 http://omicron.ch.tuiasi.ro/EEMJ/



"Gheorghe Asachi" Technical University of lasi, Romania



ANALYSIS OF PRIMARY ENERGY USE OF TYPICAL BUILDINGS IN HUNGARY

Béla Bodó*, Ferenc Kalmár

University of Debrecen, Faculty of Engineering, 4028 Debrecen, Ótemető u. 2-4, Hungary

Abstract

The building stock in Eastern European countries varies greatly in terms of the thermal properties of the materials used. During recent decades, the requirements related to building energy performance have been changed. Nevertheless, the number of newly built buildings has decreased in recent years, so there are few buildings that fulfill the strictest requirements that were recently introduced. Several national programs have been started to help owners improve the energy use of their buildings. In this paper, the various requirements of the past several decades were presented, and the energy analysis of different typical buildings (family house, multi-family house, block of flats, public house) was performed. The possibility of PV cells installation was also analyzed.

Key words: building type, heating, Hungarian standards, requirements

Received: February, 2014; Revised final: October, 2014; Accepted: October, 2014

^{*} Author to whom all correspondence should be addressed: e-mail: bela.bodo@eng.unideb.hu; Phone: +36 52 415155; Fax: +36 52 418643