Environmental Engineering and Management Journal

November 2014, Vol.13, No. 11, 2837-2844 http://omicron.ch.tuiasi.ro/EEMJ/



"Gheorghe Asachi" Technical University of lasi, Romania



## INCREASING ROLE OF RENEWABLE ENERGIES IN THE MAINTENANCE OF SETTLEMENTS IN EASTERN HUNGARY

Balázs Kulcsár<sup>1\*</sup>, Zsolt Radics<sup>2</sup>, Gábor Kozma<sup>2</sup>, Károly Teperics<sup>2</sup>, János Pénzes<sup>2</sup>, Ernő Molnár<sup>2</sup>, Mariann Marincsák<sup>2</sup>

<sup>1</sup>Faculty of Engineering, University of Debrecen, 4028 Debrecen, Ótemető utca 2-4., Hungary <sup>2</sup>Faculty of Sciences and Technology, University of Debrecen, 4032 Debrecen, Egyetem tér 1., Hungary

## Abstract

The most important issues of the new millennium are the adaption of renewable energies; and the establishment and operation of social and technical systems that have little impact on the environment. People must undertake to solve this problem during the establishment of the everyday life of the settlements. In the course of this study, the authors surveyed the documents related to the energy strategy of the local municipalities of the Northern Great Plain region. This document analysis was supplemented by interviews. Finally foreign and Hungarian case studies were analyzed, based on the literature, self-collected data and interviews. The paper presents the good practices for sustainable settlement development based on renewable energies.

Key words: development strategies, renewable energies, sustainable settlement

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

<sup>\*</sup> Author to whom all correspondence should be addressed: E-mail: kulcsarb@eng.unideb.hu; Phone: +36 52512900