Proceedings of SEBUA-12
ICHMT International Symposium on Sustainable Energy in Buildings and Urban Areas
July 14-20, 2012, Kusadasi, Turkey
SEBUA-12-xxx

STUDY CONCERNING THE EFFECTS OF THERMAL REHABILITATION OF A BLOCK OF FLATS

Irina Bliuc*, Irina Baran*[§], Radu Pescaru*
„Gh.Asachi" Technical University from Iaşi, Romania
[§]Correspondence author. Email: irina_baran@yahoo.com

INTRODUCTION

Thermal rehabilitation of dwelling buildings in Romanian urban environment became a reality in recent years for two main reasons:

- low level of thermal protection of collective housing built before 1989, causing high energy consumption for heating and achieving minimal conditions of comfort; this is reflected in the cost of paying high energy bills, with increased social effects by the today economic crisis;
- the need for compliance with European legislation on reducing energy consumption and emissions of greenhouse gases resulting from the operation of buildings (European Directive).

The effective way to deal with the rehabilitation varies depending on the source of funding. Thus, based on law, the thermal rehabilitation of collective dwelling buildings was sustained at a rate of 66.6% by state government and municipality equally - and only 33.3% of works to be covered by the owners.

The works were carried out by authorized companies, closely monitored in terms of quality, on the basis of a project made in accordance with the energy audit report. But resources being limited, only a relatively small number of buildings could benefit of this law, whose validity ended in 2009. Since the effects of rehabilitation were visible and stimulating, a large number of owners have engaged rehabilitation works on their own, without an energy audit and without a project performed by an authorized firm. Sometimes there are situations of partial rehabilitation, with unfavourable effects on the thermal insulated apartments, located in the proximity of the un-insulated apartments. This is the case of the building forming the subject of study.