

THE EXPERIENCE OF ENERGY SAVING RETROFIT OF DISTRICT HEATING CONSUMERS SYSTEMS

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The energy consumption of the building sector has increased by around 1% per annum since 1990, mainly in non-residential buildings (1.5% per annum) and represents 41% of final energy consumption at EU level in 2010.

In District Heating Systems the buildings are the end consumers of heat energy produced by heat sources. The energy saving retrofit of District Heating Systems that begins from end consumers is most profitable.

The experience of energy saving retrofit of heat substations in the buildings is discussed. The different types of heat substations are considered for radiator heating (independent circuit through heat exchanger, circuit with mixing circulation pumps), ventilation and tap water heating. The construction of heat substations and their key components (heat exchangers, control automation, pumps) are presented.

The basic moments of Integrated Program on Energy Saving Rehabilitation of Infrastructure in National Technical University „Kharkiv Polytechnical Institute“ are presented too.

It is marked that the similar integrated program may be developed for University of Zagreb.