

LCC ANALYSIS OF RAINWATER UTILIZATION SYSTEM  
IN MULTI-FAMILY RESIDENTIAL BUILDINGS  
DANIEL SŁYŚ, TADEUSZ BEWSZKO

**Abstract:** The paper deals with examination of financial profitability of the introduction of rainwater utilization system (RWUS) in multi-family residential buildings. The aim of the work was to build a simulation model of such system and make an LCC analysis of some options of rainwater utilization system. The proposed conception of a new method of selecting the most cost-effective option of RWUS includes: building of simulation model of such system, making the LCC analysis and using a scenario analysis for supporting decision making process with uncertainty. This new method has been applied to a dwelling house in Poland. The results obtained from the analysis demonstrate the unprofitability of the introduction of RWUS in multi-family residential buildings for the adopted location in Poland. The presented method can be used by individual designers and managers to decide on the selection of the most appropriate water supplying option for a specific location.