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Energy consumption reduction proposals for thermal systems in residential buildings

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Abstract

The energy efficiency in the building sector, a widely accepted point inside world energy sustainability, can be pursued in a variety of complementary ways, being energy consumption reduction one of them. Specifically, the residential buildings are responsible for more than 40% of the total energy consumption of the European Union. Therefore, this residential sector is an important target for optimizing the use of energy. This paper examines the energy saving measures for multi-family residential building thermal systems in the city of Granada. The state and usage patterns of such systems in a middle-size city are surveyed and analysed in order to propose sounded saving measures. The proposed measures were quantified according to two parameters: energy saved and CO₂ emissions reduction. This quantification enables the identification of best measures either cost or energy effective,

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