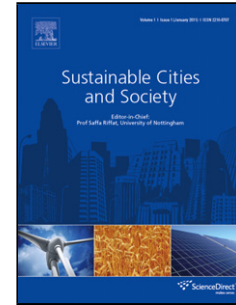


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Implications of Life Cycle Energy Assessment of a new school building, regarding the nearly Zero Energy Buildings targets in EU: A case of Study

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Highlights

- EU policies promote the enhancement of building energy performance
- Non-Residential Buildings have increased its energy consumption by 15%
- Buildings are classified by considering only operation energy
- Energy consumption of a newly built school has been measured and assessed
- Pre-use phase involves similar energy consumption than the use-phase

Abstract

Lately EU has promoted several policies with the aim of reducing buildings energy impact. Despite such policies have successfully contributed to reduce residential buildings (RBs) energy consumption, non-residential buildings (NRBs) have shown an increasing of operational energy demand by 15.7%, during last decade. On the one hand, energy impacts are underestimated since only primary energy consumption (PEC) is considered while other energies, such as those related to the construction phase, replacements, or end-use phase, are missed. On the other hand, policies commonly lack of specific standards regarding NRBs since NRBs heterogeneity makes its standardization difficult. Therefore, with the aim

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