



## Beyond Nearly Zero Energy Buildings (NZEBs): Achievements and Challenges

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### Message from the Guest Editors

Energy consumption in buildings is a huge concern at the global level. With the aim of promoting a more rational use of energy, new policies have been introduced over the last decade. The Energy Performance of Buildings Directive recast (EPBD recast, Directive 2010/31/EC) established the implementation of nearly zero energy buildings (NZEBs) as the building target from 2018 onwards. In recent years, the topic of NZEBs has been widely analysed, but is still subject to discussion at the international level. Although the attention given to NZEBs has increased, reaching the NZEBs target still appears to be far in the future, especially in relation to the existing built environment.





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## Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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