

Special Issue

Urban Energy Systems: Challenges and Prospects for a Sustainable Future

Message from the Guest Editors

Urban areas present both a challenge and an opportunity for climate action. They are responsible for 75% of greenhouse gas emissions and are also highly vulnerable to climate change impacts. As countries transition their energy supply systems towards net-zero emission targets. This Special Issue focuses on the challenges and prospects in urban energy systems, exploring the dimensions of the energy trilemma: energy security, energy equity, and environmental sustainability. The sustainable transition of cities requires a coordinated effort towards the implementation of innovative technologies that valorize local resources, harness environmental and waste energy sources, and integrate into existing and future energy infrastructure. Additionally, the increased relevance of prosumers and social behavioral changes will strain existing energy distribution infrastructure, demanding new frameworks for planning and control to ensure supply security. Finally, social actors' abilities to influence energy-related issues must be considered in assessing the effectiveness of climate change policies.

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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