Special Issue

Renewable Hybrid Microgrids

Message from the Guest Editors

Microgrids, i.e., locally controlled energy systems that can operate grid-connected or as electrical islands, such as remote power systems, can manage themselves without being connected to the grid. They can help deploy more zero-emission energy sources, make use of waste heat, reduce energy lost, help power supply and demand, and improve grid resilience to extreme weather. Renewable hybrid microgrid systems founded on solar, wind, biomass, or hydraulic energy, however, encounter challenges related to intermittency and the variability of renewable sources. The integration significantly increases the coupling and interactions between sources and between supply and end-use at various scales in multinational, national, community, intra-building, and intra-process. Energy storage and charge management, as well as flexible demand, are among the technology solutions used to increase the penetration of renewable energy and improve performance and the business case.

This Special Issue focuses on recent advances in the policy, design, optimization, operation, and test cases of renewable hybrid microgrids.

Guest Editors

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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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