Special Issue

Next-Generation Energy Systems: Towards Sustainable and Resilient Microgrids

Message from the Guest Editors

Microgrids emerged as a potential electrification solution for the integration of controlled distributed generation units, including beneficial special operating characteristics. In this way, emphasis has been placed on the potential benefits offered by microgrids, such that the analysis, coordination, and energy management of microgrid clusters for ensuring a reliable and resilient system have been explored for the next-generation electrical power grid. This Special Issue of *Energies* focuses on the future challenges associated with the deployment and coordination of multiple renewable-energy-based microgrids. In detail, this Special Issue includes, but it is not limited to, the following:

- Transient and steady-state analysis methods for planning and designing microgrid clusters;
- Hierarchical control schemes for coordination and energy management;
- Resilient-oriented energy system hardening measures;
- Resilient microgrid and smart grid frameworks;
- Resilient operation management system;
- Black-start and self-restoration;
- Grid-fault ride-through;
- Microgrid protection schemes.

Guest Editors

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Message from the Editor-in-Chief

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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