



Next-Generation Energy Systems: Towards Sustainable and Resilient Microgrids

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Message from the Guest Editors

Dear Colleagues,

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.





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Message from the Editor-in-Chief

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