Special Issue

Renewable Energy Sources for Smart Grids

Message from the Guest Editors

The smart grid emphasizes interoperability, renewable generation, distributed generation, and storage options, including dispersed energy storage with electric vehicles. Actually, the smart grid concept is the key to a larger and larger deployment of distributed generation based on renewable energy sources. In conclusion, new issues make the design of generators, storage systems, and power converters for renewable power generation in smart grids really challenging. The topics of this Special Issue include but are not limited to:

- Technologies for smart grid optimal operation with a high share of renewables;
- Power flow management;
- Energy storage;
- Advanced electrical machines and controlled drives for renewable energy harvesting;
- New electrical machine designs for wind energy applications;
- Direct-drive machines for microhydro and wind generation;
- Control aspects of electrical machines for smart grid applications;
- Advanced power electronics design for smart grids.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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