Special Issue

Renewable Energy Power Generation and Integrated Energy Networks

Message from the Guest Editors

In recent years, with the increasingly severe problem of global climate change and fossil energy shortage, decarbonization strategies have been widely established by many countries. To achieve this objective, renewable energy sources (RES) such as wind power and photovoltaic (PV) are developed very quickly. However, the randomness and variability of RES power threaten power grid operation, and generation curtailment significantly restricts the expansion of RES energy. Complementary management of RES power with other power sources provides an effective way to address this challenge. Research areas include:

- Prediction, modeling, and valuation of renewable energy generation.
- Research mode and economy of complementary systems.
- Integrated modeling and simulation technology of renewable energy systems.
- Efficient and secure grid integration of massive renewable energy resources.
- Optimal design and sizing for off-grid hybrid energy systems.
- Novel renewable energy-dominated hybrid systems.
- Variable transmission technologies.
- Analysis of the application prospects of energy storage technology under carbon peak and carbon neutrality. We look forward to receiving your contributions.

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

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