

Special Issue

Advances in Stability Control, Optimal Operation and Modeling Analysis of Power System with High-Level Renewable Energy

Message from the Guest Editors

The development of renewable energy resources (RES) has become an obvious choice as the world is obligated to support green energy and achieve carbon neutrality. In this context, a high proportion of RES with large capacity access has gradually become a typical feature of new power systems. This Special Issue aims to provide a forum for all scholars to present their discoveries on technological developments in renewable energy and sustainability. Research areas may include (but are not limited to) the following: 1. Modeling and control of solar, wind, energy storage and emerging generation;

2. Modeling and analysis of renewable energy delivery system;
3. Flexible networking technology of RES;
4. Sensing technology of voltage spatial-temporal distribution;
5. Virtual inertia and primary frequency modulation control;
6. Inertia identification and evaluation analysis;
7. Volt/var optimal control of active distribution network based on RES;
8. Voltage regulation and power compensation strategy;
9. Inertia optimal configuration power system with high-level RES;
10. Virtual synchronous generator;
11. Energy management and tidal current control.

Guest Editors

Dr. Bo Zhang

Dr. Jiaoxin Jia

Dr. Sen Cui

Deadline for manuscript submissions

closed (30 September 2025)



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Sustainability
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sustainability@mdpi.com

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Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,
Columbus, OH 43210, USA

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