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Planning, Operation and Control of Power Grids with Penetration of Renewable Energy Sources

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Deadline for manuscript submissions:

closed (20 January 2023)

Message from the Guest Editors

Dear Colleagues,

The power system transformation to sustainable energy is required in order to mitigate their negative impact on the natural environment and human health. However, the transformation itself is a challenging task and requires overcoming multiple obstacles. The complexity of the process is increasing due to the highly variable and weather-driven nature of renewable energy sources. Such high stochasticity on both the supply and demand sides drastically changes the operating rules and conditions under which the power system is managed, controlled, and developed.

This Special Issue seeks papers in the areas of distribution system optimization, planning operation and control, with an emphasis on solving real-time or near-real-time research problems. This also includes the power system operation and control and modelling, and numerical techniques for power flow and optimal power flow studies. Example applications include, but are not limited to, power grids, smart grids, transmission and distribution systems, Virtual Power Plants (VPPs), and Artificial Intelligence (AI) and forecasting techniques for distribution system operation, planning and control.



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Special Issue



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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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