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Grid Applications and Performance in Power Systems

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Message from the Guest Editors

Dear Colleagues,

The Guest Editor invites papers for a Special Issue of *Energies* on "Grid Applications and Performance in Power Systems." Modern power systems have experienced a fundamental revolution as a result of the advent of DERs, shifting from centralized to decentralized optimization. Such transition results in concepts such as VPP and microgrid, which may aggregate various DERs and have been acknowledged as a promising solution to improve grid dependability, security, and economy. Meanwhile, data sciences are coming to offer DT in contemporary power systems, which can make full use of data collection while also enhancing situation awareness and grid performance decision-making.

Topics of interest for publication include, but are not limited to:

- Power system control and optimization
- Distributed energy resources aggregation
- Energy management system of microgrids/VPP
- Digital twin technology in power grid
- Big data analytics in distribution network
- Anomaly detection of electrical device



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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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