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Forecasting, Control and Optimization for Distributed Energy Resources in Future Power Grids

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Message from the Guest Editor

The impact of distributed energy resources is nowadays unquestionable, especially at the distribution level, such as in photovoltaic (PV) generation, wind turbine (WT) generation, energy storage systems, and electric vehicles (EV). The forecasting methodologies for PV, WT, and EV charging demand is becoming more important to manage the voltage or even frequency in the network. Controlling distributed energy resources, such as through a demand response and peak shift, needs to be more sophisticated in the future grids. Additionally, the traditional energy market is no longer appropriate for the prosumers who own distributed energy resources. The local market or P2P trade based on blockchain is promising in the future power grid.

This **Special Issue** will address the forecasting, control, and optimization of distributed energy resources. The focus will include methods and techniques to optimize operation, aggregate the resources, namely by virtual power players, and reimburse them. Integrating distributed resources in electricity markets will also be addressed as the main reason for their efficient use.



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Special Issue



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Message from the Editor-in-Chief

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