

Special Issue

Planning and Operation of Distributed Energy Resources in Smart Grids II

Message from the Guest Editors

The management of distributed energy resources (DERs) in smart grids is the most promising solution to cope with the steadily increasing demand of electrical energy all over the world, accounting for the requirement of planning a sustainable future from both environmental and economic viewpoints. In fact, the presence of renewable generation injecting power into the electrical networks, as well as the presence of various types of DERs (e.g., electric vehicles, responsive loads, and distributed storage), leads to several critical conditions of unpredictability and insecurity, which require researchers and utilities to develop innovative approaches, such as the smart grid.

Smart grids require the following challenging characteristics to be implemented effectively: safety, reliability, efficiency, affordability, environmental “cleanliness”, technical and economical optimization, interaction with electricity markets, self-healing ability, and the presence of an appropriate regulatory framework. Therefore, researchers are still involved in many studies and experimental implementations to find solutions to the technical, economic, and regulatory issues.

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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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