Special Issue

Renewable Energy and Energy Storage for Distributed Energy Generation Systems

Message from the Guest Editor

This Special Issue will focus on wider issues related to distributed energy resources. Basic local electricity generation should include photovoltaic panels, small wind turbines, and biomass generators which are fueled with waste gas or industrial and agricultural by-products. The greatest possible independence for local installations of the centralized generation sources from power plants should be considered. Therefore, in distributed systems, it is advisable to integrate local generators with energy storage. Energy storage can include electrochemical, mechanical, and chemical technologies. The main focus of this Special Issue will be on the technologies that are currently being considered, i.e., batteries, fuel storage (hydrogen, biomethane, methanol, and compressed air storage), and various forms of heat storage. The solutions considered for enabling the use of stored energy may include fuel cells, reciprocating engines, and gas turbines. Also worth considering are combined heat and power units, or tri-generation units that also utilize waste heat to provide cooling, which is especially important in food production.

Guest Editor

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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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