Special Issue

Advancements in Wind Farm Design and Optimization

Message from the Guest Editors

Although wind energy is technologically mature and commercially viable, the increasing size of the wind farms currently being installed and planned presents new challenges for the scientific community, which must offer solutions that can be effectively utilized by developers. This Special Issue aims to gather research that can be readily applied to a wide range of scenarios, rather than being limited to overly constrained test environments. In this context, we welcome reviews or original research articles focusing on onshore or offshore wind farms with a single turbine model, addressing topics such as the following:

- Optimization of annual energy production.
- Wake characterization.
- Wind resource assessment.
- Mitigation of noise or visual impacts.
- Optimization of electrical infrastructure.
- Costs associated with wind farm construction and operation.
- Interaction between nearby wind farms.

The expected contribution of these studies is to establish a solid foundation for understanding turbine interactions caused by wake effects and to realistically address wind farm design, considering technical, economic, environmental, and social acceptance factors.

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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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