Special Issue

Low-Carbon Integrated Energy System with Renewable Generations: Characterization, Modelling, and Optimization

Message from the Guest Editors

Carbon emission reduction is critical to achieving sustainable economic development. The traditional energy system, with deep integrations of advanced information and energy-conversion technologies, has evolved into an integrated energy system in which multiple energy sources interact and respond to each other. It can achieve a complementary and mutually beneficial operation mode, leading to a significant reduction in carbon emissions. Therefore, it is necessary to conduct detailed modeling and optimization research on integrated energy systems with renewable generations. Specific themes of this Special Issue include but are not limited to:

- Low-carbon economic dispatch for integrated energy systems with renewable generations.
- Carbon-tracking and carbon-migration mechanisms for integrated energy systems with renewable generations.
- Environmental assessment indicators for integrated energy systems with renewable generations.
- Distributed optimization method for the low-carbon operation of the integrated energy system with renewable generations.
- Optimization of the integrated energy system based on artificial intelligence with renewable generations.

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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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