Special Issue

Planning and Operation of Integrated Energy Systems with Uncertainties

Message from the Guest Editors

This Special Issue is concerned with research on the key fundamental issues of integrated energy systems (IESs) when planning and operating under uncertainties, which consist of three parts: (1) modeling of IESs, in addition to modeling the dynamic behaviors of various energy devices as well as their connections to form an IES model; (2) development of high-dimensional multi-objective stochastic optimization algorithms; (3) development of decision-making support for determination of the final optimal solution for the planning and operation of IESs under uncertainties, selected from the Pareto sets of a multi-objective optimization computation; and (4) mechanism design for distributed IESs to participate in the electricity market under various interest entities. This Special Issue aims to publish high-quality, original research papers in the overlapping fields of:

- Modeling for integrated energy systems;
- Energy storage technologies;
- Uncertainties management;
- Multi-objective optimization;
- Decision-making support;
- Net-zero-carbon emissions from IESs;
- Economy and reliability evaluation;
- Mechanism design for IESs.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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