



Electricity Market Modeling Trends in Power Systems

Guest Editors:

Dr. Zhongkai Yi

School of Electrical Engineering and Automation, Harbin Institute of Technology, Harbin 150006, China

Dr. Chenyu Wu

College of Electrical and Power Engineering, Hohai University, Nanjing 211100, China

Dr. Linwei Sang

EMS Group, Tsinghua University, Haidian District, Beijing 100084, China

Deadline for manuscript submissions:

closed (31 January 2025)

Message from the Guest Editors

In recent years, the product categories in the electricity market have become increasingly diverse, including active power, reactive power, spinning reserve, frequency regulation capacity and frequency regulation mileage, etc. The fields involved in the electricity market are also gradually expanding, including multiple fields such as electricity, heating, natural gas and transportation. Therefore, it is necessary to analyse the electricity market modelling trends in power systems and develop relevant technologies to promote the development of the modern electricity market.

This Special Issue will curate novel advances in research that either use modelling, planning and optimization as essential tools to design electricity market mechanisms or analyse the development trends in power systems, including the following topics:

1. Review of the electricity market modelling trends;
2. Bidding and operation strategy of the market participants;
3. Carbon markets;
4. The market mechanism of the integrated energy system;
5. Market clearing methods;
6. Energy storage in the electricity market;
7. Virtual power plants and their business model;
8. Other topics relevant to the electricity market.





energies



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: CiteScore - Q1 (Control and Optimization)

Contact Us

Energies Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/energies
energies@mdpi.com
[X@energies_mdpi](https://twitter.com/energies_mdpi)