

Special Issue

Flexible and Secure Operation of Multi-Scenario Integrated Energy System Coupled with Electricity and Hydrogen

Message from the Guest Editors

The combined utilization of hydrogen and electric energy is becoming an important research topic for integrated energy systems (IESs). The electric-hydrogen-coupled IES presents the more abundant adjustment potential in all aspects of supply, storage, transportation and consumption, which is of great significance for enhancing the flexibility of land grid-connected IESs and the security of off-grid island IESs. This Special Issue aims to introduce and disseminate advanced technologies and pilot studies that exploit the advantages of electric-hydrogen coupling to enhance the ability of IESs to cope with the challenges of different scenarios. We invite you to submit high-quality original research papers, case studies and reviews related to the operation of IESs coupled with electricity and hydrogen.

Guest Editors

Dr. Xingtang He

Key Laboratory of Smart Grid of Ministry of Education, Tianjin University, Tianjin 300072, China

Dr. Xiaolong Jin

Key Laboratory of Smart Grid of Ministry of Education, Tianjin University, Tianjin 300072, China

Dr. Sheng Wang

School of Engineering, Newcastle University, Newcastle, UK

Deadline for manuscript submissions

10 December 2025



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/225473

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)



About the Journal

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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

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

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)