Special Issue

Multi-carrier Energy Systems

Message from the Guest Editor

The need for an energy transition has motivated the replacement of traditional sources of energy with sustainable ones. For example, the electrification of mobility and heating systems has been accelerated during recent years. The replacement of gas in homes and fossil fuels in cars has led to a significantly higher electricity demand, which puts pressure on electricity grids. Different technologies, such as fuel cells, electrolyzers, and heat pumps have emerged as alternatives to traditional systems. Future energy systems will have a mix of energy carriers. Multi-carrier systems, to be installed in households, buildings, microgrids, and charging stations, will have a higher participation in the future. For this reason, the integration, control, and coordination of these systems and their role in supporting the grid is key to accelerate the energy transition. This Special Issue is dedicated to multi-carrier systems and will cover the topics of:

- Multi-carrier residential systems;
- Multi-carrier charging stations;
- Multi-carrier energy storage systems;
- Optimization and control of multi-carrier systems;
- Design of multi-carrier systems;
- Coordination of multi-carrier systems.

Guest Editor

Dr. Laura Ramírez Elizondo
Department of Electrical Sustainable Energy, Delft University of Technology, Mekelweg 4, 2628 CD Delft, The Netherlands

Deadline for manuscript submissions

closed (24 August 2024)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/176345

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

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

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)