Special Issue

Grid Integration of Renewable Energy: Latest Advances and Prospects

Message from the Guest Editors

In this context, this Special Issue seeks to broaden the horizon surrounding the integration of renewable energy sources into the power grid. It aims to highlight the most recent methodologies and technological advancements that enable seamless integration, focusing not only on present solutions but also on the outlook for grid evolution while considering future development perspectives in light of recent national and international decarbonization plans. The topics welcomed by the Special Issue include, but are not limited to, the following:

- Technological innovations;
- Challenges of intermittency and variability;
- Role and development of energy storages;
- Static and dynamic impact of the integration;
- Advanced grid control systems;
- Policy and regulatory frameworks;
- Prosumer engagement;
- New market dynamics;
- Integration of electric vehicles;
- Access to distributed data sources from power system stakeholders;
- Long-term prospects for 100% renewable energy power systems.

Guest Editors

Dr. Marco Pasetti

Dr. Antony Vasile

Prof. Dr. Eleonora Riva Sanseverino

Dr. Davide Astolfi

Deadline for manuscript submissions

5 December 2025

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/228457

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)

MDPI