

## Special Issue

# Non-synchronous Generation and Storage in Transmission and Distribution Systems: Protection, Control and Smart Grid Applications

### Message from the Guest Editors

This Special Issue focuses on, but is not limited to, the following topics:

- Methods for stability analysis of transmission and distribution systems with a large share of non-synchronous generation and storage;
- Unit commitment and reserve scheduling in transmission systems with a large share of non-synchronous generation and storage;
- Models of non-synchronous generation and storage units;
- Power electronic converters for non-synchronous generation and storage applications;
- Applications of non-synchronous generation and storage units, their combinations, or combinations with conventional synchronous generation units;
- Control strategies for non-synchronous generation and storage units to enhance voltage and frequency stability;
- Methods for the determination of fault current contribution from non-synchronous generation and storage units;
- Protection design in transmission and distribution systems with non-synchronous generation and storage;
- Protection principles for non-synchronous generation and storage units;
- Smart solutions for transmission and distribution systems with non-synchronous generation and storage.

---

### Guest Editors

Dr. Boštjan Polajžer

Power Engineering Institute, Faculty of Electrical Engineering and Computer Science, University of Maribor, Koroška cesta 46, 2000 Maribor, Slovenia

Prof. Dr. Gorazd Štumberger

Dean of the Faculty of Electrical Engineering and Computer Science, University of Maribor, Koroška cesta 46, 2000 Maribor, Slovenia



## Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.2



[mdpi.com/si/40587](https://mdpi.com/si/40587)

*Energies*

MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[energies@mdpi.com](mailto:energies@mdpi.com)

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





# Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.2



[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 Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 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)