

## Special Issue

# Modeling, Simulation and Control of Wind Diesel Power Systems

### Message from the Guest Editor

Wind diesel power systems (WDPS) are isolated microgrids that combine diesel generators (DGs) with wind turbine generators (WTGs). WDPS are in many cases the result of adding WTGs to a previous existing diesel power plant located in a remote place where there is an available wind resource. By means of the WTGs supplied power, fuel consumption and CO<sub>2</sub> emissions are reduced. WDPSs are isolated power systems with low inertia where important system frequency and voltage variations occur. WDPS dynamic modeling and simulation allows short-term simulations in order to obtain detailed electrical variables transients, so that WDPS stability and power quality can be tested. This Special Issue of *Energies* is a call for papers mainly on the subject of WDPS dynamic modelling and simulation that take into account factors such as WDPS operation modes simulation, the WTG type used in WDPS, or the use of energy storage systems (ESS). Papers about the sizing of the different WDPS components are also welcome.

---

### Guest Editor

Prof. Dr. Rafael Sebastián Fernández

Department of Electrical, Electronic and Control Engineering (DIEEC),  
Universidad Nacional de Educación a Distancia (UNED), 28040-Madrid,  
Spain

---

### Deadline for manuscript submissions

closed (30 April 2021)



## Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/si/36769](https://mdpi.com/si/36769)

*Energies*  
Editorial Office  
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 3.2  
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)