

Special Issue

Efficient Renewable Energy Integration Technology in Low Voltage Networks

Message from the Guest Editors

The integration of renewable energy resources (RES) into low-voltage distribution networks (LVDNs) is a pivotal aspect of the ongoing energy transition, driven by the goals of sustainability and decarbonization. This transition, while promising, poses a set of formidable challenges. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but not limited to) the following:

- Interactions between Home-MG/Mini-MG and LVDN;
- Voltage regulation/control of LVDN with RES;
- Energy storage technology and management for renewable integration;
- Power quality control and improvement in low-voltage distribution network with high proportion of RES;
- Intelligent control and coordination for self-healing, autonomy and self-organization of LVDN;
- Accurate power forecasting of distributed renewable generation in LVDNs.

Guest Editors

Dr. Wenfa Kang

AAU Energy, Aalborg University, 9220 Aalborg, Denmark

Dr. Yajuan Guan

Center for Research on Microgrids (CROM), AAU Energy, Aalborg University, 9220 Aalborg, Denmark

Prof. Dr. Juan C. Vasquez

Center for Research on Microgrids (CROM), AAU Energy, Aalborg University, 9220 Aalborg, Denmark

Deadline for manuscript submissions

closed (15 January 2025)



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/182865

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

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





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



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



About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,
Columbus, OH 43210, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1
(Geography, Planning and Development)