

Special Issue

Decentralized, Bottom-Up Electrification Approaches for Universal Energy Access

Message from the Guest Editors

Ensuring universal, affordable, and sustainable energy access is arguably one of the biggest societal challenges of our time. As of 2020, close to a billion people worldwide live without electricity, and another two billion have unreliable access. The centralized electricity grid is, due to cost, mismatch to user needs, and lack of financial feasibility, not always the optimal choice, especially for remote, rural contexts. Decentralized, bottom-up approaches, such as solar home systems and microgrids, have emerged as a response, but affordability, scalability, and path to growth remain a challenge. This Special Issue invites researchers from academia, industry, government, NGOs, and developing agencies to present their latest findings concerning technologies enabling universal energy access. Topics include but are not limited to the following:

- Decentralized, ad-hoc microgrids
- Solar home systems
- Interoperability
- Productive energy use
- Ultra-efficient DC appliances
- Renewable energy generation (PV, biomass, wind, etc.)
- Sociotechnical integration
- Co-creation and localization
- Market mechanisms

Guest Editors

Dr. Jelena Popovic

Faculty of Electrical Engineering, Mathematics & Computer Science,
University of Twente, Enschede, The Netherlands

Dr. Nishant Narayan

Program Lead Energy Access, TU Delft Global Initiative, Delft University
of Technology, Delft, The Netherlands

Deadline for manuscript submissions

closed (1 August 2021)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/50018

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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)