

## Special Issue

# Microgrids and Virtual Power Plants (VPPs) in Smart Energy Communities and Local Energy Markets

### Message from the Guest Editors

In this Special Issue, we invite original and unpublished research work in areas including (but not limited to):

- Innovative design and control of community-based microgrids and VPPs
- Integrating renewable energy, thermal/electrical energy storage, electric vehicles, heat pump integration for a net-zero energy community
- Power quality and energy management in microgrids/VPPs for smart energy communities and local electricity markets
- Participation of community microgrids/VPPs in local grid ancillary services and local energy markets (LEMs)
- Impacts of local microgrids/VPPs/LEMs on the distribution network
- Energy trading between communities (interaction between local energy markets)
- Microgrids in smart buildings (residential, commercial, industrial)
- Techno-economic modelling and optimisation of community and local microgrids/VPPs for market participation and energy services
- Advancement in control for microgrids/VPPs for smart energy communities and local electricity markets
- Advancement in ICT for microgrids/VPPs for smart energy communities and local energy markets (including blockchain, DLT, IoT, etc.)

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### Guest Editors

Dr. Shafi Khadem

Prof. Dr. Geert Deconinck

Dr. Antonios Papaemmanouil

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### Deadline for manuscript submissions

closed (31 October 2021)



## Energies

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## 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.

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### Editor-in-Chief

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