

## Special Issue

# Transportation Electrification and Vehicle-to-Everything (V2X) Technologies

### Message from the Guest Editors

The rapid advancement of transportation electrification is transforming the landscape of mobility and energy systems. With the increasing adoption of electric vehicles (EVs), there is a growing need to understand their impact on travel behavior, grid infrastructure, charging infrastructure, and overall energy management of facilities. This Special Issue aims to explore the multifaceted aspects of EV that connect building, transportation, and grid, in particular for their role as distributed energy resources in the grid. The aim of this Special Issue is to gather cutting-edge research, comprehensive reviews, and laboratory and field demonstrations on the various dimensions of transportation electrification, vehicle-to-grid integration, and value proposition of EVs in the grid. We seek contributions in the areas of travel behavior modeling, vehicle-to-grid (V2G), vehicle-to-building (V2B), and vehicle-to-everything (V2X) technologies. Additionally, we are interested in studies that investigate the potential of EVs to act as backup power sources for resilience and their management within charging infrastructures.

### Guest Editors

Dr. Yingdong He

College of Civil Engineering, Hunan University, Changsha 410012, China

Dr. Bin Zou

College of Civil Engineering, Hunan University, Changsha, China

### Deadline for manuscript submissions

11 December 2025



## Sustainability

---

an Open Access Journal  
by MDPI

---

**Impact Factor 3.3**  
**CiteScore 7.7**



[mdpi.com/si/219394](https://mdpi.com/si/219394)

*Sustainability*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sustainability@mdpi.com](mailto: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. *Sustainability* publishes original research articles, review 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. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario  
Institute of Technology, Oshawa, ON L1G 0C5, Canada

---

### 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, CAPIus / SciFinder, and other databases.

#### Journal Rank:

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