

## Special Issue

# Modeling, Prediction and Management of Charging and Discharging Loads for Electric Vehicle–Grid Interaction Under the “Double Carbon” Strategy

### Message from the Guest Editors

The "double carbon" strategy accelerated the processes of achieving clean energy production, high energy consumption, increasingly uniform energy allocation, and gradually efficient energy use. The profound adjustment of energy pattern will definitely bring significant changes in the future development of the electric power system. In this process, electric vehicles (EVs) are vigorously promoted for their energy-saving and low-carbon advantages. However, the randomness of the load of many EVs connected to the grid will increase the peak-to-valley difference in the grid load, which will lead to serious problems such as tidal current crossing and transformer overload in the distribution network, bringing great challenges to the stable operation of the grid. Therefore, in order to achieve the orderly charging and discharging management of EVs and to take advantage of the multiple services that they can provide to the power system, it is urgent to explore the charging and discharging load modeling, prediction, and management methods of EVs interacting with the power grid in the context of "double carbon".

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### Guest Editors

Prof. Dr. Qingshan Xu

Dr. Xiaodong Yuan

Prof. Yongbiao Yang

Prof. Dr. Haihong Bian

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### Deadline for manuscript submissions

closed (30 June 2025)



## World Electric Vehicle Journal

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*World Electric Vehicle Journal*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[wevj@mdpi.com](mailto:wevj@mdpi.com)

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## About the Journal

### Message from the Editor-in-Chief

The *World Electric Vehicle Journal* is the official journal of the World Electric Vehicle Association (WEVA) and its members the European Association for Electromobility (AVERE), the Electric Drive Transportation Association (EDTA), and the Electric Vehicle Association of Asia Pacific (EVAAP). Since its foundation in 2007, the journal has aimed to provide a publishing platform for the academic and industrial world to share the latest developments and knowledge about electric vehicles. If you are developing Electric, Plug-in Hybrid, Hybrid Electric, or Fuel Cell Vehicles, we cordially invite you to consider us as the place for you to publish your latest results and innovations.

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### Editor-in-Chief

Prof. Dr. Joeri Van Mierlo

MOBI—Electromobility Research Centre, Department of Electrical Engineering and Energy Technology, Faculty of Engineering Sciences, Vrije Universiteit Brussel, 1050 Brussel, Belgium

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