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Electric Vehicles Integration in Smart Grids

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Message from the Guest Editors

Dear Colleagues,

The energy sector (e.g., transport and electricity & heat) accounts for more than 70% of total emissions globally, which contextualises ongoing efforts on the development of clean and modern energy technologies (e.g., smart grids and renewable energy), and the increasing integration of electric vehicles (EVs). The co-development and integration of EVs and renewable energy in smart grids will bring significant benefits to multiple sectors (e.g., transport and electricity), however, at the same time will create unprecedented challenges to reliable and efficient system operations. For instance, with the uptake of EVs and public charging infrastructures, the electricity demand will increase significantly, which inevitably accelerates the already increasing growth of renewable energy to meet the demand and thus poses new challenges on the existing energy system planning and operations. On the other hand, the renewable energy and EVs integration in smart grids considering their sizing and location selection will affect the transport planning and operations and create interesting and important charging/discharging and driving behaviors.



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Message from the Editor-in-Chief

The *World Electric Vehicle Journal* is the official journal of 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 aims 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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