



## CALL FOR PAPERS

### **Journal of Modern Power Systems and Clean Energy**

#### **Special Issue on Electric Vehicles and Their Integration with Power Grid**

The decarbonization of the whole energy system from head to tail has been recognized worldwide as a key measure to tackle the twin challenges of secure and sustainable energy supply and climate change due to green-house gas emissions. To achieve this, it is key to plan and build the suitable infrastructure, and to manage the resources to ensure future power systems operate more reliably, more flexibly, and more economically, by integrating and coordinating the actions of all temporally and spatially distributed actors of different natures, with due considerations to the constraints, and uncertainties imposed upon them by highly complex external environments. Within this context, this special issue focuses on the electric vehicles (EVs, representing a key group of end users and energy storage facilities in future energy system) and their integration with future grid with significant penetration of intermittent variable renewable generations. The integration of EVs with power grid imposes significant technological challenges on the reliable and secure management of the electricity system based on conventional power grid architecture and technologies. On the other hand, it has been widely researched that EVs arguably could both benefit from and help to drive forward the development of smart grids where renewable resources are widely and substantially employed. This special issue is dedicated to reflect the latest progress and technologies in electric vehicles and their integration with power grid, in particular showcasing the concerted effort in addressing the key issues through global collaborations, primarily based on the large scale UK-China EPSRC/NSFC jointly funded projects on electric vehicles and smart grid.

The topics include, but are not limited to:

- EV system modelling and simulation
- EV energy management
- Battery modelling and analysis
- Reliability and lifetime
- Eco-charging technologies
- Smart charging infrastructure and grid planning
- Information fusion and intelligent computing in EV applications
- Motor, Power electronics and control
- Business models and pricing strategies
- EV maintenance and diagnostics
- Smart EV driving and charging load forecast

- EV fleet and infrastructure asset management
- Integration and optimization
- Economic load dispatch
- Energy-aware vehicular sensor networks and sensor network for smart grid
- Energy efficient communication network for smart grid
- Communication protocols and power management
- Cyber security in smart grid
- High performance computing for smart grids
- V2G and demand side response control
- Utilities and transportation assets
- Social perception and support
- Policy, action and incentives

#### **Submission Guidelines**

**<http://www.editorialmanager.com/mpce> or link via**

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**E-mail: [mpce.edit@gmail.com](mailto:mpce.edit@gmail.com)**

#### **Important Dates**

**Paper submission deadline: Sept. 30, 2013**

**Acceptance notification: Dec.1, 2014-Jan. 31,2015**

**Date of Publication: April 2015**

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