

Call for Papers Special Issue on



Hydrogen integration in smart grid and energy internet

Important Dates

Full Paper Submission: Jun. 3, 2021 Final Decision Notification: Sep. 15, 2021 Publication of Special Issue: Feb. 28, 2022

Due to the global climate change and environmental issues, the development of clean and low-carbon energy has become the trend of global energy transition. Hydrogen is recognized as the energy that can facilitate the global energy transition and play an important role in smart grid and the Energy Internet (EI). In recent years, the hydrogen industry all over the world has developed rapidly and achieved a series of achievements, thanks to the increasing capital investments in industries and the breakthroughs in technologies. However, there are still some critical issues and challenges in the development of hydrogens and their applications in smart grid and EI, including the design and modeling of hydrogen systems, optimization and decision-making of the hydrogen-integrated smart grid and EI, as well as the techno-economic evaluation of the integration of hydrogen systems with other energy systems, etc. We propose this special issue with the aim to reveal the latest progress in the hydrogen area and the application of hydrogen in the smart grid and EI, to develop the theories and solutions for addressing the aforementioned issues, and to bridge the past achievements and the possible future applications.

Topics of interest include, but are not limited to:

- Modeling, control, and optimization of the hydrogen related facility and the integration into smart grid and energy internet;
- Utilizing hydrogen systems to promote the consumption of renewable energy and to improve the operational flexibility of the smart grid:
- Real-world application of the hydrogen energy;
- Practical experience in the construction and development of real-world hydrogen infrastructure projects;
- Blueprint for the development of hydrogen energy in the future;
- Advanced facilities and infrastructure to integrate the electrical power and hydrogen systems.

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