sustainability

an Open Access Journal by MDPI

IMPACT FACTOR 3.3

CITESCORE 6.8

Power System Flexibility in High Renewable Energy Systems

Guest Editors:

Dr. Doug Arent
Scientific Computing and Energy Analysis, National Renewable Energy Laboratory, Golden, CO 80401, USA

Ms. Ella Zhou
Grid Systems Group, National Renewable Energy Laboratory, Golden, CO 80401, United States

Deadline for manuscript submissions:
closed (31 December 2020)

Message from the Guest Editors

Dear Colleagues,

A broad range of economic, environmental, technical, and socio-political forces have driven the deployment of renewable energy to unprecedented levels in many countries and regions. High renewable penetration challenges the flexibility of the electric power system – often defined as the ability to cope with variability and uncertainty. Moreover, meeting the flexibility challenges of high penetration renewable systems may be facilitated by appropriately designed and operated cross-sector solutions such as the electrification of the end- use sectors, particularly transportation, and power-to-gas or to-hydrogen development. These trends call for an interdisciplinary approach to investigate the flexibility topic.

This special issue in Sustainability will cover this promising and dynamic area of research and development, and emphasize the broad array of considerations and state-of-art approaches in effectively planning and managing bulk power systems with high variable renewable energy as the foundation for broader clean energy economies.

Dr. Doug Arent
Ms. Ella Zhou
Guest Editors

sustainability

IMPACT FACTOR 3.3

CITESCORE 6.8

an Open Access Journal by MDPI

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

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.

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, AGRIS, RePEc, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (*Environmental Studies*) / CiteScore - Q1 (Geography, Planning and Development)

Contact Us

Sustainability Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/sustainability
sustainability@mdpi.com
𝕏@Sus_MDPI