



Sustainable Wind Power Systems: Recent Advancements in AC/DC Collector Grids, and High-Voltage DC (HVDC) and Low-Frequency AC (LFAC) Transmission Systems

Guest Editors:

Dr. Omid Beik

Electrical Engineering
Department, Colorado School of
Mines, Golden, CO 80401, USA

Dr. Qiuhua Huang

Electrical Engineering, Colorado
School of Mines, Golden, CO
80401, USA

Deadline for manuscript
submissions:

1 July 2024

Message from the Guest Editors

The integration of large-scale wind generation systems into the existing power grids continues to grow, as an increasing number of onshore and offshore wind farms are being installed to meet the demands of clean energy. For transmission grids in wind power systems, traditionally high-voltage AC systems have been used; however, with the flexibility and controllability that power electronic systems offer and their competitive costs, high-voltage DC (HVDC) are becoming more popular, especially as the wind farms become larger. For collector grids, which collect the power from wind turbines before sending it to an offshore/onshore substation, AC collector grids have been the primary choice of technology. However, as DC systems and their power electronic-based components gain more popularity while their cost continues to decrease, there is an interest in the use of DC systems either in medium-voltage DC (MVDC) or HVDC for collector grids. A DC collector and transmission grid system is sometimes referred to as an all-DC grid.

The purpose of this Special Issue is to provide a platform for authors and the scientific community to share their recent findings on the topics of interest.





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, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/sustainability
sustainability@mdpi.com
[X@Sus_MDPI](#)