Special Issue

Energy Storage Systems Applications and Effects on Power Quality

Message from the Guest Editors

Renewable energy sources, mainly solar and wind, are presented as protagonists and have had impressive growth. Beyond the obvious benefits of generation, there are some challenges that the intermittent nature of these sources brings up. Considering this, energy storage is shown to be a vital technology in order to integrate this renewable generation better, whether centralized or distributed, ensuring an increase in power systems performance and other benefits that reach various stakeholders of the electric grid.

On the other hand, the large insertion of energy storage technologies, such as batteries, which require an AC/DC conversion interface with the power grid, directly affects the waveform distortions, mainly as sources of harmonic distortions. Distortions of the waveform cause a series of negative effects on networks at different levels, and cannot be neglected. In addition, there are other problems such as voltage unbalance and voltage fluctuation. Therefore, this Special Issue aims to receive articles highlighting the challenges and benefits that energy storage systems (ESSs) have in power systems.

Guest Editors

Prof. Dr. Paulo F. Ribeiro

Institute of Electrical Systems and Energy, Federal University of Itajubá, 37500-903 Itajubá, Brazil

MSc. Rafael S. Salles

Institute of Electrical Systems and Energy, Federal University of Itajubá, 37500-903 Itajubá, Brazil

Deadline for manuscript submissions

closed (31 March 2022)



Sustainability

an Open Access Journal by MDPI

Impact Factor 3.3 CiteScore 7.7



mdpi.com/si/83305

Sustainability Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 sustainability@mdpi.com

mdpi.com/journal/ sustainability





Sustainability

an Open Access Journal by MDPI

Impact Factor 3.3 CiteScore 7.7



About the Journal

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. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full 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.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University, Columbus, OH 43210, USA

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, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1 (Geography, Planning and Development)

