

Special Issue

Sustainable Power System Planning and Analysis

Message from the Guest Editors

The primary objective of a power system is to safely provide reliable energy services to society at an affordable cost. Achieving this objective must be done according to a fast transformation from fossil to sustainable energy sources, new paradigms for transmission, distribution, and consumption. Existing power system analysis and planning methods are potentially compromised by the rapid transition occurring globally, characterized by the increasing penetration of variable renewable energy (VRE), inverter-based resources (IBR), and distributed energy resources (DER). New analysis and planning methods must also consider the flexibility of the electric power system—often defined as the ability to cope with variability and uncertainty. This Special Issue is focused on new approaches for power system analysis and planning accounting for technical and economical challenges to the transition to a decarbonized and sustainable environment. Contributions to this Special Issue are expected to address the most relevant challenges of today's power system operation and planning.

Guest Editors

Prof. Dr. Paulo M. De Oliveira-De Jesus

Department of Electrical and Electronic Engineering, Universidad de Los Andes, Bogotá, Colombia

Prof. Dr. Manuel Alvarez

Department of Engineering Sciences and Mathematics, Luleå University of Technology, Skellefteå, Sweden

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

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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.

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

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