

## Special Issue

# The Development and Modeling of Energy Storage Systems for Renewable-Based Electric Systems

### Message from the Guest Editors

Environmental concerns are driving a huge change in the production and transmission of energy. A crucial aspect is represented by the transition from a centralized power production, mainly based on fossil fuels, to a decentralized one, consisting of renewable sources. As a matter of fact, renewables are considered as non-programmable power sources since they present a strong intermittent and fluctuating behavior that can lead to safety and reliability issues on the national power systems. To accelerate this transition and meet the user demands, non-programmable energy produced by renewables needs to be stored and used when necessary. Therefore, the development and modeling of new energy storage systems and the technological improvement of the existing ones could be a milestone for a massive penetration of renewables. Therefore, this Special Issue aims to disseminate the most recent advances related to the development, modeling, application, electrical architecture topologies, and control of all types of energy storage systems coupled with renewable-based electric systems.

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### Guest Editors

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### Deadline for manuscript submissions

closed (20 September 2024)



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## About the Journal

### Message from the Editor-in-Chief

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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