

## Special Issue

# Energy Storage and Electric Power Systems: Theory, Methods, and Applications—2nd Edition

### Message from the Guest Editors

The fast growth of renewables brings new design and operational challenges to the energy transition, working towards a 100% renewable energy goal, and Europe has an ambitious target to decarbonize. Therefore, in this Special Issue, we investigate the role of electricity storage systems in the rapid rise of renewable energy resources and the steady fall of fossil fuels in power systems with large-scale wind and PV integration. Different energy storage technologies, such as compressed-air energy storage, hydro-pumped storage, sodium-sulfur batteries, electrical cars or ships, hydrogen, fuel cells, and desalination, may be included in this Special Issue. Here, we focus on theory, methods and applications of storage systems combined with renewable energy sources. Integration and economic issues could also be addressed. Specific case studies, best practices, technical solutions and technoeconomic assessments may be analyzed or presented.

- electrical storage
- large-scale wind and PV integration
- hydrogen
- electrical cars
- fuel cells
- hydro-pumped storage
- integration issues

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### Guest Editors

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### Deadline for manuscript submissions

30 June 2026



## Applied Sciences

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

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