Special Issue

Hybrid Energy Storage Systems Based on Liquid Air and Compressed Air

Message from the Guest Editor

The globalisation of the electrical grid through the wide introduction of renewable energy sources (available locally), as well as the demand for a high flexibility of the electrical grid, associated with new technologies that are purely dependent on electricity (electro mobility, smart buildings, smart cities, digitalization, etc.), requires economically and environmentally effective solutions. Industrial-scale energy storage systems have become an important element in modern energy supply chains. These energy storage systems have great potential for improvement, as both individual technologies and as the part of complex and hybrid systems. Research contributions in the area of developing; improving; and the rational application, evaluation, and optimization of the liquid air and compressed air energy storage systems are invited. These research publications should address, but are not limited to, the following: thermodynamic (exergy) analysis; round trip efficiency; evaluation of the available technologies and their limitations; economic and ecological impacts; multi-criteria evaluation; and optimization.

Guest Editor

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Deadline for manuscript submissions

closed (1 October 2020)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/23418

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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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