Special Issue

Modelling and Control of Energy Storage System

Message from the Guest Editor

Energy storage systems will play an essential role in achieving an energy system based on renewable energy. They can serve many different roles in the electricity system and in the energy system by providing flexibility to balance the systems. They will have a significant impact on network planning and operation by contributing to the integration of distributed generation and mitigating the impact of the increased electricity consumption coming from the electrification of transportation and space heating. This Special Issue will focus on how to model and control energy storage systems to integrate them in the operation of the system at all levels. It will provide insights into how to integrate ESS into markets and enable good business outcomes by stacking multiple streams of revenue. The ESS will be installed and operated in very different market and regulatory setups, and this will have a huge impact on the optimal utilization of the capabilities. The co-location and coordinated operation of largescale wind power and solar power installations with ESS presents new possibilities for the operation of the combined system by firming the fluctuating generation.

Guest Editor

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Deadline for manuscript submissions

closed (10 June 2020)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/35823

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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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