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Sommario/riassunto

The depletion of fossil fuels, the increase of energy demands, and the concerns over climate change are the major driving forces for the development of renewable energy, such as solar energy and wind power. However, the intermittency of renewable energy has hindered the deployment of large-scale intermittent renewable energy, which, therefore, has necessitated the development of advanced large-scale energy storage technologies. The use of large-scale energy storage can effectively improve the efficiency of energy resource utilization, and increase the use of variable renewable resources, the energy access, and the end-use sector electrification (e.g., electrification of transport sector). This Special Issue will provide a platform for presenting the latest research results on the technology development of large-scale energy storage. We welcome research papers about theoretical, methodological and empirical studies, as well as review papers, that provide critical overview on the state of the art of technologies. This special issue is open to all types of energy, such as thermal energy, mechanical energy, electrical energy and chemical energy, using different types of systems, such as phase change materials, batteries, supercapacitors, fuel cells, compressed air, etc., which are applicable to various types of applications, such as heat and power generation, electrical/hybrid transportation, etc.
