Special Issue

Hybrid Renewable-Fossil Fuel Energy Systems

Message from the Guest Editors

Renewable generator power output fluctuations force conventional fossil-fuel-based power units to provide compensating power in order to maintain the overall system balance. At present, wind or solar fluctuations are mostly mitigated by the large-scale distribution of conventional generators or by quick ramping storage systems, such as hydropower units. Thus, quick ramping generators (such as gas turbines) are forced to deviate, most of the time, far from their maximum efficiency condition (i.e., minimum operating cost). Storage technologies could handle the unsteadiness of renewable sources with smaller fossil fuel plant capacity while still providing a fast response. The goal of this Special Issue is to cover all the aspects related to these aspects, focusing on technologies, optimized off-design operational and/or management strategies or applications.

Guest Editors

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Dr. Maria Alessandra Ancona

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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.

Editor-in-Chief

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