Special Issue

Climate Variability Impacts on the Energy System

Message from the Guest Editor

The energy system is highly vulnerable to climate variability and change (CV&C) as it causes a wide range of impacts on energy production, supply channels and demand sectors. Paradoxically, the energy system account for large contribution to global climate change, as emission from fossil fuel power plants make up to 40% of the global GHG emissions. Energy system transition from fossil fuel offer a means of both mitigating GHG from the energy sector and adapting to a changing world. However, transitioning to a cleaner sustainable energy system requires an understanding of the impact of CV&C and how the inclusion of renewables can offer economic and societal benefits. Therefore, it is important to assess the impacts CV&C on the future energy system and explore mitigation and adaptation strategies that offers benefits to the economy, society and environment. This special issue aims to encompass a variety of new studies investigating the impacts of CV&C on the energy system, mitigation/adaptation strategies and pathways to a clean and sustainable energy transition.

Guest Editor

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Deadline for manuscript submissions

closed (28 February 2023)



Climate

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 5.7



mdpi.com/si/119519

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About the Journal

Message from the Editor-in-Chief

Climate (ISSN 2225-1154) was established in 2013 to provide an open-access outlet for innovative research, review articles, new direction papers, and short communications relevant to all disciplines related to climate at all scales. The journal encourages papers ranging from climate change detection and attribution and Earth system modeling to ecosystem, hydrologic, and socioeconomic impacts and climate mitigation and adaptation measures. The influence of Climate is strong and growing (IF 3.2 in 2024, CiteScore 5.7 in 2024).

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