

Special Issue on
Renewable Energy Infrastructure and Integration

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Sustainable and environmentally friendly sources of energy are urgently required to address global energy challenges, as are the associated systems required to efficiently incorporate these sources into existing energy grids. There is a growing recognition of the need to transition from traditional, often non-renewable, energy sources to renewable alternatives to mitigate the impact of climate change and to ensure a more sustainable future.

In order to harness energy from renewable sources, such as solar, wind, hydro, and geothermal, robust systems must be developed, including power plants, distribution networks, and storage facilities. There is an urgent need for substantial investments and advancement in these technologies to build a reliable foundation for the widespread adoption of clean energy. Another challenge is the seamless integration of renewable energy into existing power grids. This involves overcoming technical, regulatory, and economic barriers to ensure a smooth and effective transition. Integrating renewable energy sources requires the development of smart grids, energy storage solutions, and sophisticated control systems that can balance fluctuations in renewable energy production and meet the power demand consistently.

The aim of this Special Issue is to gather research showing the multifaceted approach needed to usher in an era of sustainable energy. We emphasize the creation of robust renewable energy systems and the intricate process of integrating these systems into existing infrastructure to create a reliable and environmentally friendly energy landscape. We welcome both original research and review articles.

Potential topics include but are not limited to the following:

- ▶ Policy and regulatory frameworks for renewable energy integration
- ▶ Economic viability of renewable energy infrastructure
- ▶ Community engagement and social acceptance of renewable energy projects
- ▶ Resilience and adaptation of renewable energy infrastructure to climate change
- ▶ Studies of successful renewable energy integration projects
- ▶ Education and workforce development in renewable energy infrastructure

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.wiley.com/submit?specialIssue=697928>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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