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Sustainable Management and Design of Renewable Power Systems

Guest Editor:

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Deadline for manuscript submissions:
closed (25 April 2024)

Message from the Guest Editor

In order to achieve carbon neutrality, there is no doubt that classic fossil-fuel-based power generation should be replaced with renewable energy sources that do not emit greenhouse gases. However, apart from the unique advantages of green electricity production, the grid connection of the large capacity of renewable power sources creates various problems from the perspective of grid control, operation, and planning. These problems are mainly due to the uncontrollability of the output, which is called intermittency or variability. This might seriously threaten the stability, reliability, and safety of the power grid, which are considered the gold standard for conventional power grid operation, and can cause great confusion in economic dispatch in the short term, and optimal investment planning in the long term in terms of economics.

Research areas may include (but are not limited to) the following:

- Renewable generation forecasting;
- Energy storage application;
- Dynamic voltage restoration;
- Renewable generation monitoring system;
- Renewable generation curtailment;
- Sustainable energy mix;
- LCOE (levelized cost of energy) of renewable generation;
- Flexibility of the grid.

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Editor-in-Chief

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Message from the Editor-in-Chief

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