



Unlocking the Flexibility of Local Energy Systems for Supporting Carbon Reduction

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Message from the Guest Editors

With the net-zero transition aimed to be reached globally by 2050, more renewable power generation systems are to be installed in local energy systems to keep up with the increased electricity demands. Power systems face multiple challenges in balancing supply and demand, e.g., increased peak demands, unbalanced load distributions, etc.

The flexibility of local energy systems, i.e., the ability to change normal electricity generation/consumption patterns, such as adjusting the renewable power generation onsite to provide auxiliary services to the networks, can be utilized to address these challenges.

The Special Issue “Unlocking the Flexibility of Local Energy Systems for Supporting Carbon Reduction” calls for high-quality research articles highlighting recent contributions. Topics of interest include, but are not limited to:

- Modelling and simulation of local energy systems;
- Optimal scheduling and control of flexible resources;
- Renewable energy absorption in local energy systems;
- Uncertainty analysis of industrial plants, and renewable power generation;
- Advanced sensing, communication, simulation, optimization, and control technologies.





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