



## Integrated Energy Systems: Design and Operation Optimization

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### Message from the Guest Editors

Integrated energy systems interlink multiple energy carriers such as Power, Gas, and Heat over the traditional energy-economic sectors. This integration gives rise to unprecedented high overall energy system efficiency and flexibility. However, these highly integrated energy systems do not exist yet on a large scale and hence need to be designed and operated very carefully. This Special Issue aims to present and disseminate the most recent advances related to this regard.

Topics of interests:

Deadline for manuscript  
submissions:

**closed (30 June 2023)**

- Optimization-based integrated energy-system scenarios;
- (Multi-point) operation optimization in MES considering various (multi) target functions (cost-, energy-, or CO<sub>2</sub>-minimization);
- Unit commitment problems;
- Assessment of energy storage and Demand-Side Management in low-carbon energy systems;
- Techno-economic analyses of technologies and services in integrated energy systems;
- Multi energy systems grid planning and design;
- Design and operation optimization of integrated energy systems in industry;
- Transition in transportation and its impact on integration energy systems
- Development of open-software tools for design and/or operation optimization of integrated energy systems.





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## Message from the Editor-in-Chief

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