

Special Issue

Advances in Underground Thermal Energy Storage

Message from the Guest Editors

There is a global drive towards a net-zero carbon economy, which could be achieved with the help of underground thermal energy storage. Heating and cooling have to be decarbonised, since they account for much of the energy spent globally. The aim of this Special Issue is to present advances in underground thermal energy storage. This can include case studies, theoretical studies, studies that involve system design, modelling, control, implementation, monitoring or optimisation, as well as reviews. Please also note that studies are not limited to subsurface technologies only, and the implementation of charge sources and demand (i.e. through heat networks) is also of interest. Topics of interest include, but are not limited to:

- Borehole thermal energy storage
- Aquifer thermal energy storage
- Pit and mine thermal energy storage
- Geothermal heating and cooling
- Thermal response tests
- Whole-system modelling
- Heat networks
- Surface analysis of demand and charge
- Waste heat recovery
- Energy efficiency
- System optimisation
- Economic analysis
- Technological advances

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Deadline for manuscript submissions

closed (31 July 2024)



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About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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