



## Thermal Energy Storage, District Heating and Optimization in a Multi Energy System Context

Guest Editor:

**Dr. Elisa Guelpa**

Energy Department, Politecnico  
di Torino, 10129 Torino, Italy

[elisa.guelpa@polito.it](mailto:elisa.guelpa@polito.it)

Deadline for manuscript  
submissions:

**15 March 2022**

### Message from the Guest Editor

The challenge of reaching 100% renewable cities must rely on different technologies for energy production that should be opportunely linked at different levels (country, region, city). District heating connected to thermal storage represents an interesting option to reduce pollutant emissions for house space heating, even more in a Multi-Energy context (heat, electric and gas) since thermal grids represents a cheap buffer for the energy excess (i.e. conversion by power to heat). Despite thermal storage, district heating and multi-energy systems are expected to play a significant role for an efficient energy supply to buildings, they are still characterized by limitations that require further research efforts.

This Special Issue will comprise a selection of papers presenting original and innovative contributions on the above bullet points and, in general, in the following main fields:

1. thermal storage technologies and their integration for urban/building-scale and multi-energy applications;
2. district heating and multi energy system in the transition towards future sustainable societies.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Marc A. Rosen**

Faculty of Engineering and  
Applied Science, University of  
Ontario Institute of Technology,  
Oshawa, ON L1G 0C5, Canada

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer-reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

## Author Benefits

**Open Access:**— free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High visibility:** indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [Inspec](#), [AGRIS](#), [RePEc](#), [CAPlus / SciFinder](#), and many [other databases](#).

**Journal Rank:** [JCR](#) - Q2 (*Environmental Sciences*) / [CiteScore](#) - Q1 (*Geography, Planning and Development*)

## Contact Us

---

*Sustainability*  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
Fax: +41 61 302 89 18  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sustainability](http://mdpi.com/journal/sustainability)  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)  
[@Sus\\_MDPI](https://twitter.com/Sus_MDPI)