

Special Issue

Life Cycle and Costs Assessment for a New Generation Low-Impact Transport Sector

Message from the Guest Editors

Decarbonizing the transport sector stands as a critical effort in the global pursuit of mitigating climate change. Life Cycle Assessment (LCA) and Total Cost of Ownership (TCO) are essential methodologies in this context, offering a thorough evaluation of both the environmental impacts and economic viability throughout the entire lifecycle of transport systems. These methodologies emerge as crucial tools for assessing the environmental impacts associated with various modes of transportation, ensuring that political decisions are made without inadvertently shifting environmental burdens. The aim of this Special Issue is to collect contributions regarding the role of LCAs and their related studies in shaping a sustainable future across all areas of the transport sector in a technology-neutral approach. This includes the evaluation of the Greenhouse Gas (GHG) footprint and TCO of various powertrains, such as electric, hydrogen, biofuel, and hybrid technologies, for dedicated applications. The scope spans from road transport to international transport, including the aviation and maritime sectors.

Guest Editors

Dr. Benedetta Peiretti Paradisi
Energy Department, Politecnico di Torino, 10129 Turin, Italy

Dr. Matteo Prussi
Department of Energy, Politecnico di Torino, 10129 Torino, Italy

Deadline for manuscript submissions

closed (25 February 2026)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



mdpi.com/si/220723

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)





Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)



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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)