

Special Issue

Life Cycle Assessment (LCA) in Building Construction: Focus on Embodied Carbon and Energy

Message from the Guest Editors

Actually, about 40 per cent of global energy-related greenhouse gas (GHG) emissions come from the building and construction sector. A range of policy instruments, technologies, and initiatives that explicitly consider embodied energy and carbon emissions are needed to achieve net zero emission goals, and a more sustainable building and construction sector. This Special Issue aims to present the latest research and development on the impacts and performance related to the embodied energy/carbon of built assets across scales (from products to building stock) and life cycle stages. Topics include but are not limited to the following:

- Challenges in assessing embodied energy/carbon (methodology, data, guideline, etc.)
- Policies related to embodied energy/carbon
- Data management of embodied energy/carbon
- Benchmarking of embodied energy/carbon
- Supporting tools or platforms for embodied energy/carbon reduction
- Case studies of each phase of embodied energy/carbon (A4 and A5, B3 to B5, C1-C4 or consideration of stage D or whole of embodied energy/carbon, etc.)
- Circularity of materials in construction

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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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