





Special Issue Reprint

Life Cycle & Technoeconomic Modeling

www.mdpi.com/books/reprint/3149

Edited by Antonio Colmenar Santos David Borge Diez Enrique Rosales Asensio

ISBN 978-3-03943-639-2 (Hardback) ISBN 978-3-03943-640-8 (PDF)



This book aims to perform an impartial analysis to evaluate the implications of the environmental costs and impacts of a wide range of technologies and energy strategies. This information is intended to be used to support decision-making by groups, including researchers, industry, regulators, and policy-makers. Life cycle assessment (LCA) and technoeconomic analysis can be applied to a wide variety of technologies and energy strategies, both established and emerging. LCA is a method used to evaluate the possible environmental impacts of a product, material, process, or activity. It assesses the environmental impact throughout the life cycle of a system, from the acquisition of materials to the manufacture, use, and final disposal of a product. Technoeconomic analysis refers to cost evaluations, including production cost and life cycle cost. Often, in order to carry out technoeconomic analysis, researchers are required to obtain data on the performance of new technologies that operate on a very small scale in order to subsequently design configurations on a commercial scale and estimate the costs of such expansions. The results of the developed models help identify possible market applications and provide an estimate of long-term impacts. These methods, together with other forms of decision analysis, are very useful in the development and improvement of energy objectives, since they will serve to compare different decisions, evaluating their political and economic feasibility and providing guidance on potential financial and technological risks.





MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

MDPI AG Grosspeteranlage 5 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

