

Editorial

Energy for Sustainable Future

T. M. Indra Mahlia *  and I. M. Rizwanul Fattah * 

Centre for Green Technology, Faculty of Engineering and I.T., University of Technology Sydney, Ultimo, NSW 2007, Australia

* Correspondence: TMIndra.Mahlia@uts.edu.au (T.M.I.M.); IslamMdRizwanul.Fattah@uts.edu.au (I.M.R.F.)

Energy and the environment are interrelated, and they are critical factors that influence the development of societies. The pollution of the environment, without considering various consequences, has become one of the most important global issues today. This environmental pollution is mainly the result of increases in economic activities, population, transportation, electricity generation, agriculture, forestry, and land use. The exigency of energy for these activities, the rapidly rising price of petroleum oil, the harmful effect of greenhouse gases, and the quest for energy security have steered our attention towards sustainable sources of energy. It is fundamental to find innovative solutions that are sustainable from the perspective of energy management and environmental protection. These solutions will provide a promising future in terms of energy sources meeting energy demand, together with maintaining the environment.

This book includes three review articles, which review the state-of-the-art of different sustainable energy resources. These articles include ammonia as a renewable energy carrier [1], integration of solar photovoltaic [2], and bio-oil from waste tires for automotive engine applications [3]. In addition, eight research studies reveal new knowledge about energy for a sustainable future. The topics covered span many diverse areas associated with sustainable energy, including various biofuels [4,5], photovoltaic [6], and other aspects of sustainability [7–11]. These complementary contributions provide a substantial body of knowledge in the field of renewable and sustainable energy.

We would like to thank the academic and managing editors, as well as the reviewers, for their efforts and input. We enjoyed editing the papers for this collection.

Author Contributions: Writing—original draft preparation, I.M.R.F.; writing—review and editing, T.M.I.M.; supervision, T.M.I.M. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Conflicts of Interest: The author declares no conflict of interest.



Citation: Mahlia, T.M.I.; Fattah, I.M.R. Energy for Sustainable Future. *Energies* **2021**, *14*, 7962. <https://doi.org/10.3390/en14237962>

Received: 22 November 2021
Accepted: 23 November 2021
Published: 29 November 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

1. Hasan, M.H.; Mahlia, T.M.I.; Mofijur, M.; Rizwanul Fattah, I.M.; Handayani, F.; Ong, H.C.; Silitonga, A.S. A Comprehensive Review on the Recent Development of Ammonia as a Renewable Energy Carrier. *Energies* **2021**, *14*, 3732. [[CrossRef](#)]
2. Samoita, D.; Nzila, C.; Østergaard, P.A.; Remmen, A. Barriers and Solutions for Increasing the Integration of Solar Photovoltaic in Kenya's Electricity Mix. *Energies* **2020**, *13*, 5502. [[CrossRef](#)]
3. Jahirul, M.I.; Hossain, F.M.; Rasul, M.G.; Chowdhury, A.A. A Review on the Thermochemical Recycling of Waste Tyres to Oil for Automobile Engine Application. *Energies* **2021**, *14*, 3837. [[CrossRef](#)]
4. Pourzolfaghar, H.; Abnisa, F.; Wan Daud, W.M.A.; Aroua, M.K.; Mahlia, T.M.I. Catalyst Characteristics and Performance of Silica-Supported Zinc for Hydrodeoxygenation of Phenol. *Energies* **2020**, *13*, 2802. [[CrossRef](#)]
5. Ong, M.Y.; Nomanbhay, S.; Kusumo, F.; Raja Shahruzzaman, R.M.H.; Shamsuddin, A.H. Modeling and Optimization of Microwave-Based Bio-Jet Fuel from Coconut Oil: Investigation of Response Surface Methodology (RSM) and Artificial Neural Network Methodology (ANN). *Energies* **2021**, *14*, 295. [[CrossRef](#)]
6. Dumlao, S.M.G.; Ishihara, K.N. Weather-Driven Scenario Analysis for Decommissioning Coal Power Plants in High PV Penetration Grids. *Energies* **2021**, *14*, 2389. [[CrossRef](#)]
7. Hassan, O.; Morse, S.; Leach, M. The Energy Lock-In Effect of Solar Home Systems: A Case Study in Rural Nigeria. *Energies* **2020**, *13*, 6682. [[CrossRef](#)]
8. Jadim, R.; Kans, M.; Schulte, J.; Alhattab, M.; Alhendi, M.; Bushehry, A. On Approaching Relevant Cost-Effective Sustainable Maintenance of Mineral Oil-Filled Electrical Transformers. *Energies* **2021**, *14*, 3670. [[CrossRef](#)]
9. Jasiński, R.; Galant-Gołębiewska, M.; Nowak, M.; Ginter, M.; Kurzawska, P.; Kurtyka, K.; Maciejewska, M. Case Study of Pollution with Particulate Matter in Selected Locations of Polish Cities. *Energies* **2021**, *14*, 2529. [[CrossRef](#)]
10. Sofyan, S.E.; Hu, E.; Kotousov, A.; Riayatsyah, T.M.I.; Thaib, R. Mathematical Modelling and Operational Analysis of Combined Vertical–Horizontal Heat Exchanger for Shallow Geothermal Energy Application in Cooling Mode. *Energies* **2020**, *13*, 6598. [[CrossRef](#)]
11. Yudha, S.W.; Tjahjono, B.; Longhurst, P. Stakeholders' Recount on the Dynamics of Indonesia's Renewable Energy Sector. *Energies* **2021**, *14*, 2762. [[CrossRef](#)]