DISCUSSION PUBLISHERS
Research Center · Open Access Edition

Renewable Energy in the Sustainable Development of Electrical Power Sector: A Review

Wadim Striekowski, Lubomr Civn, , Manuela Tvaronaviien, Yelena S. Petrenko

Discussion Research ID	DPR-2026-1249
Year	2021
Field	Energy
DOI	10.3390/en14248240
Author ORCID	0000-0001-6113-3841
Licence	CC-BY
Original source	Energies
Permanent link	https://discussionpublishers.com/research/bcd65752-7b4f-4272-b9c5-166443cdef22
Publisher	Discussion Publishers discussionpublishers.com

Republished by Discussion Publishers under the original CC-BY licence. Copyright remains with the original authors; please cite the original work.

Cite as: Wadim Striekowski, Lubomr Civn, (2021). Renewable Energy in the Sustainable Development of. Discussion Publishers, DPR

Abstract

The electrical power sector plays an important role in the economic growth and development of every country around the world. Total global demand for electric energy is growing both in developed and developing economies. The commitment to the decarbonization of economies, which would mean replacing fossil fuels with renewable energy sources (RES) as well as the electrification of transport and heating as a means to tackle global warming and dangerous climate change, would lead to a surge in electricity consumption worldwide. Hence, it appears reasonable that the electric power sector should embed the principles of sustainable development into its functioning and operation. In addition, events such as the recent European gas crisis that have emerged as a result of the massive deployment of renewables need to be studied and prevented. This review aims at assessing the role of the renewable energy in the sustainable development of the electrical power sector, focusing on the energy providers and consumers represented both by businesses and households that are gradually becoming prosumers on the market of electric energy. Furthermore, it also focuses on the impact of renewables on the utility side and their benefits for the grid. In addition, it identifies the major factors of the sustainable development of the electrical power sector.

Keywords: renewable energy, sustainable development, decarbonization, prosumers, energy consumers, electricity

Full text

The complete text of this work is hosted by its original publisher.
Read it via the Discussion Publishers page:
https://discussionpublishers.com/research/bcd65752-7b4f-4272-b9c5-166443cdef22

Original record: https://doi.org/10.3390/en14248240
DOI: https://doi.org/10.3390/en14248240