1. Record Nr. UNINA9911015967803321

Autore	Casila Joan Cecilia
Titolo	Proceedings of The 3rd International Conference on Climate Change and Ocean Renewable Energy : Climate Change and Ocean Renewable Energy / / edited by Joan Cecilia Casila, Anupam Khajuria, Saim Memon
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-93887-9
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (403 pages)
Collana	Springer Proceedings in Earth and Environmental Sciences, , 2524-3438
Altri autori (Persone)	KhajuriaAnupam MemonSaim
Disciplina	333.7
Soggetti	Environmental management Refuse and refuse disposal Oceanography Water Hydrology Sustainability Ecology Environmental Management Waste Management/Waste Technology Ocean Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to Climate Change and Ocean Renewable Energy -- The Science of Climate Change and its Oceanic Impacts -- Tidal Energy Harnessing Ocean Tides -- Wave Energy Capturing the Power of Ocean Waves -- Offshore Wind Energy Expanding Beyond Land -- Ocean Thermal Energy Conversion OTEC -- Marine Current Energy -- Energy Storage and Grid Integration for Ocean Renewable Energy -- Environmental Impacts and Sustainability of Ocean Renewable Energy -- Policy Economics and Global Cooperation -- Case Studies and Real-World Applications -- Future Perspectives in Ocean Renewable Energy.
Sommario/riassunto	This book promotes policy frameworks and economic models facilitating large-scale ocean renewable energy deployment. Renewable

energy refers to power generated from naturally replenished resources like sunlight, wind, rain, tides, waves, and geothermal heat. These sources are abundant and sustainable on a human timescale, making them crucial in addressing global energy needs. According to BP's 2018 Energy Outlook, renewable energy is set to grow fivefold by 2040, contributing about 14% of global primary energy. This growth is pivotal as climate change, driven by rising global temperatures, poses severe risks to humans and ecosystems. The transition to renewable energy, including biofuels, offers a critical solution to mitigate these impacts. By reducing reliance on fossil fuels, we can help slow the progression of climate change. In the past, renewables were seen as costly, but advancements in clean energy technology are making them more affordable. This cost reduction is accelerating the global shift toward renewable energy, promoting sustainable economic growth, and reducing environmental harm caused by fossil fuel dependency. The future of energy lies in harnessing these renewable resources.