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Nota di contenuto	1. Sustainability of Energy Systems: views from technology perspectives -- 2. Solar Photovoltaic Technology -- 3. MICROGRIDS -- 4. Transition of Power Distribution System Planning from Passive to Active Networks: A state-of-the-art Review and a New Proposal -- 5. Solar dish micro gas turbine technology for distributed power generation -- 6. Distributed energy solution for India: Exploring the possibilities -- 7. Mixed Integer Linear Programming Models for the Optimal Design and Operation of Polygeneration Systems -- 8. Detoxification of Crude Oil -- 9. The Sustainable Option of Power from Fossil Fuels with Carbon Capture and Storage: An Overview of State-of-the-Art Technology -- 10. CO ₂ Capture and Utilization (CCU) in Coal-fired Power Plants: Prospect of in situ Algal Cultivation -- 11. Sustainability of coal as a source of energy in India -- 12. Gas Hydrates as Potential Energy Resource for Energy Sustainability -- 13. Current Advances in Bio-oil Upgrading: A Brief Discussion -- 14. A Succinct Review on Upgrading of Lignin Derived Bio-Oil Model Components -- 15. Sustainability of

microalgal bio-refinery: Scope, challenges and opportunities -- 16. Indian Agro-wastes for 2G-Biorefineries: Strategic Decision on Conversion Processes -- 17. Utilization of light pipe in Indian buildings - sustainability through passive system -- 18. Thermal performance evaluation of building roofs embedded PCM for multi-climatic zones -- 19. Energy Efficiency at India's Largest Milk Processing Plant.

Sommario/riassunto

This book presents a state-of-the-art compilation focusing on both technological and policy aspects of sustainable energy production and consumption, which deals with issues like the need for and planning of smart cities, alternative transport fuel options, sustainable power production, pollution control technologies etc. The book comprises contributions from experts from all over the world, and addresses energy sustainability from different viewpoints. Specifically, the book focuses on energy sustainability in the Indian scenario with a background of the global perspective. Contributions from academia, policy makers and industry are included to address the challenge from different perspectives. The contents of this book will prove useful to researchers, professionals, and policy makers working in the area of green and sustainable energy.