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Descrizione fisica	1 online resource (222 pages)
Collana	Green Energy and Technology, , 1865-3537
Disciplina	929.374
Soggetti	Energy policy Energy and state Electric power distribution Renewable energy sources Energy Policy, Economics and Management Energy Grids and Networks Energy System Transformation Renewable Energy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Overview of the Peer-to-Peer (P2P) Transactions and Transactive Energy (TE) Concepts, Challenges, and Outlook -- Chapter 2. The Role and Position of P2P and TE in Worldwide Energy Evolution -- Looking at P2P Transactions and TE Through the Lens of Sharing Economy and Digital Economy -- Chapter 3. TE Technologies, Standards, and Communication Protocols -- Chapter 4. Policy, Regulation, and Market Issues in P2P Transactions -- Chapter 5. Pilots and Demonstrators Around the World -- Chapter 6. Cybersecurity and Data Privacy Issues in P2P Transactions -- Chapter 7. Application of Artificial Intelligence and Machine Learning Approaches in P2P -- Chapter 8. Transactions -- Chapter 9. Long-Term Effects of P2P Transactions on Energy Systems -- Chapter 10. Participation of the Demand-Side Agents in Ancillary Services via P2P Transactions -- Chapter 11. The Cryptocurrencies and Their Role in Future Energy Transactions -- Chapter 12. Blockchain-based TE Platform for Energy

Transactions -- Chapter 13. Distributed Optimization Applications to P2P Trading -- Chapter 14. Utilizing Shared Energy Storage in P2P Trading.

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Sommario/riassunto

Demand-Side Peer-to-Peer Energy Trading provides a comprehensive study of the latest developments in technology, protocols, implementation, and application of peer-to-peer and transactive energy concepts in energy systems and their role in worldwide energy evolution and decarbonization efforts. It presents practical aspects and approaches with evidence from applications to real-world energy systems through in-depth technical discussions, use cases, and examples. This multidisciplinary reference is suitable for researchers and industry stakeholders who focus on the field of energy systems and energy economics, as well as researchers and developers from different branches of engineering, energy, computer sciences, data, economic, and operation research fields. Offers a multidisciplinary look at peer-to-peer and transactive energy concepts; Presents state-of-the-art technical developments; Includes use cases with an emphasis on worldwide application.

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