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Nota di contenuto	Foreword -- Green Hydrogen (GH2) strategies around the world for a deep decarbonization -- The role and position of GH2 in worldwide power & energy evolution -- Looking at GH2 through the lens of decarbonized economy -- Role of GH2 in achieving net-zero carbon emissions -- GH2 production: technologies and standards -- GH2 networks: technologies and standards -- GH2 storage: technologies and standards -- Roles of GH2 in power systems flexibility -- Power systems planning considering GH2 integration -- Policy and market frameworks -- Technology/User readiness for accelerating GH2 in power systems -- Distributed electrolyzer planning in power systems -- Impacts of distributed GH2 facilities on power system technical characteristics -- Sector-coupling via GH2 -- Life cycle cost

assessment of implementing GH2 in power systems -- GH2 supply chain planning for power system -- Energy and exergy analysis for GH2 power system -- Techno-economic analysis for decentralized vs centralized GH2 power system -- Integration of solar PV with GH2 for decentralized power system -- The GH2 potential in different regions considering power system constraints -- Pilots and demonstrators around the world.

Sommario/riassunto

Green Hydrogen in Power Systems examines state-of-the-art applications and the latest developments in technology, protocols, implementation, and application of green hydrogen in power and energy systems. The first book to comprehensively analyze the opportunities and challenges in this field, it brings together global experts from different disciplines to provide a comprehensive study of the role of green hydrogen in power systems of the future and its important role in energy evolution and decarbonization efforts around the world. The book is a multidisciplinary reference for researchers and industry stakeholders who have focused on the field of hydrogen integration into the power and energy systems, as well as researchers and developers from different branches of engineering, energy, computer sciences, data, economic, and operation research fields. The first comprehensive book on green hydrogen in power systems; Brings together experts from different disciplines related to hydrogen energy; Offers in-depth technical discussions, case studies, and examples. .