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Titolo	Electricity Markets : New Players and Pricing Uncertainties // edited by Sayyad Nojavan, Kazem Zare
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ISBN	3-030-36979-X
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (IX, 270 p. 102 illus., 82 illus. in color.)
Disciplina	333.79320688 333.793231
Soggetti	Energy policy Power electronics Energy systems Computational intelligence Trade Business Commerce Energy Policy, Economics and Management Power Electronics, Electrical Machines and Networks Energy Systems Computational Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The concept of electricity markets -- Electricity market forecasting -- Electricity market price uncertainty modeling -- Generation company offering strategy and supply function equilibrium -- Transmission company scheme -- Distribution company behavior -- Loss allocation in distribution systems -- Bidding and offering strategy of retailer in smart grid -- Virtual power plant scheduling issues -- Large consumer presence in electricity market -- Demand response aggregator -- Electric vehicle aggregator -- Smart home management -- Energy hub operator -- Various degrees of liberalization and deregulation in different countries -- Impact of PV and wind power penetration on the

electricity market -- Renewable energy support and other energy policies -- Electricity storage and its implications.

Sommario/riassunto

This book analyzes new electricity pricing models that consider uncertainties in the power market due to the changing behavior of market players and the implementation of renewable distributed generation and responsive loads. In-depth chapters examine the different types of market players including the generation, transmission, and distribution companies, virtual power plants, demand response aggregators, and energy hubs and microgrids. Expert authors propose optimal operational models for short-term performance and scheduling and present readers with solutions for pricing challenges in uncertain environments. This book is useful for engineers, researchers and students involved in integrating demand response programs into smart grids and for electricity market operation and planning. Proposes optimal operation models; Discusses the various players in today's electricity markets; Describes the effects of demand response programs in smart grids.
