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Altri autori (Persone)	KetterWolfgang SymeonidisAndreas L
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Nota di contenuto	Introduction (Collins) -- Modeling a customer population in Power TAC: Electric Vehicle Chargers (Collins) -- VidyutVanika: AI-Based Autonomous Broker for Smart grids – From Theory to Practice (Chandlekar) -- Designing Retail Electricity Tariffs Using Reinforcement Learning (Naseri) -- Nudging the Direction of Energy Tariff Selection: Lessons Learned from an Attribute Framing Experiment with Temporal Construal Levels (Rook) -- AgentUDE: A Smart Broker Agent for Autonomous Power Trading (Unland) -- Upgrading a winning agent to not winning: the case of Agent Mertacor in Power TAC (Makrodimitris) -- SPOT: Strategies for Power Trading in Wholesale Electricity Markets (Morshed, Chowdhury) -- CrocodileAgent: A decade of competing in the Power Trading Agent Competition (Podobnik) -- Incorporating

Social Values for Cooperation in Energy Trading and Balancing Research (Rook) -- Smart Market-driven Virtual Power Plants of Shared Electric Vehicles (Kahlen) -- Power TAC Experiment Manager: Support for empirical studies (Collins).

Sommario/riassunto

The world is moving away from demand-driven electricity markets supplied by centralized generation and distribution of fossil-fuel-produced electricity. Increasing reliance on weather-dependent renewable sources will require a shift toward a supply-driven paradigm, while beneficial electrification, including widespread adoption of electric vehicles, heat pumps, and batteries will offer considerable but widely distributed demand flexibility that can be used to compensate for supply variability. The open-source Power Trading Agent Competition (Power TAC) platform simulates a decentralized future, modeling the high complexity of future retail electricity markets. This book describes a variety of approaches to profitable trading in realistic wholesale and retail electricity markets. It presents actionable insights from extensive exploration of policies and business models for retail electricity markets gained from a decade of Power TAC tournaments, and from research inspired by the Power TAC experience. Featuring contributions from tournament designers, competitors, and scientists combining best practices from computer science and economics and management science, this book is of benefit to academics, researchers, practitioners and policy makers in sustainable energy and wholesale and retail electricity markets. .
