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Nota di contenuto	Multi-energy systems and risk issues -- A Framework for Risk Modeling of Integrated Electricity and Gas Systems Utilizing Universal Generating Function Techniques -- Short-Term Risk Evaluation of Integrated Electricity and Gas Systems Considering Dynamics of Gas Flow -- Risk Evaluation of Integrated Electricity and Gas Systems Considering Cascading Effects -- Definitions and Risk Modelling of Two-Interdependent-Performance Multi-State System and its Application for CHP units -- Operational Risk Assessment of Integrated Electricity and Heating Systems with CHP units -- Operational Risk of Multi-Energy Customers Considering Service-Based Self-Scheduling -- Multi-phase Risk Modelling and Evaluation of Multi-energy Systems under Windstorms -- Long-term Reserve Expansion of Integrated Electricity and Gas Systems for Risk Mitigation -- Operational Risk Assessment of Integrated Electricity and Heating Systems with CHP units.
Sommario/riassunto	This book focuses on the risk modeling, analysis and control of multi-energy systems considering cross-sectorial failure propagation. Both models and methods have been addressed with engineering practice.

This is accomplished by doing a thorough investigation into the modeling of system physics and reliabilities in both long- and short-term phases. Different models and methods to evaluate the risk of multi-energy systems considering various disturbances, e.g., component failures, load uncertainties and extreme weather, are studied in detail. Furthermore, several risk control strategies for multi-energy systems, such as long-term capacity planning and integrated demand response, are analyzed in this book, which is especially suited for readers interested in system risk management. The book can benefit researchers, engineers, and graduate students in the fields of electrical and electronic engineering, energy engineering, complex network and control engineering, etc.