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Nota di contenuto	Energy-saving Theory, Technology, and Double Carbon Target -- Energy Conversion and Overall Energy Efficiency -- Overall Structure and Fieldbus of Energy Saving Control System -- Commonly Used Energy Parameter Sensors -- Valves and Clutches Commonly Used in Energy-saving Systems.
Sommario/riassunto	This open access book focuses on energy efficiency optimization control methods and energy efficiency optimization methods. The mathematical proof of the multi-unit operation energy efficiency prediction theory and engineering application solutions are given. By analyzing the commonalities of the efficiency curves of different devices and using the quantum optimization method proposed in the book, a nonlinear, integer-real-number mixed energy efficiency optimization method under constrained conditions has been demonstrated. Twelve application cases, including hydropower plants, transmission networks, distribution stations, water pumping stations, high-speed trains, electric vehicles, electric ships, central air conditioning systems, central heating systems, wind power hydrogen

production and multi-engine rockets, have been studied in detail. A key feature of this book is that the energy efficiency optimization of the system can be achieved without establishing a complex mathematical model of the multi-unit system, this method is simple, practical, widely applicable and versatile. It is particularly suitable for readers who are interested in learning about energy efficiency optimization and energy saving and carbon reduction solutions. This book can benefit researchers, engineers and graduate students in the fields of electrical and electronic engineering, control engineering, power engineering and energy engineering.