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Soggetti	Energy policy Energy and state Power electronics Energy systems Operations research Management science Energy Policy, Economics and Management Power Electronics, Electrical Machines and Networks Energy Systems Operations Research, Management Science
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Nota di contenuto	Introduction -- Deterministic Unit Commitment Models and Algorithms -- Two-Stage Stochastic Programming Models and Algorithms -- Nomenclature -- Renewable Energy Scenario Generation.
Sommario/riassunto	This volume in the SpringerBriefs in Energy series offers a systematic review of unit commitment (UC) problems in electrical power generation. It updates texts written in the late 1990s and early 2000s by including the fundamentals of both UC and state-of-the-art modeling as well as solution algorithms and highlighting stochastic models and mixed-integer programming techniques. The UC problems are mostly formulated as mixed-integer linear programs, although there are many variants. A number of algorithms have been developed

for, or applied to, UC problems, including dynamic programming, Lagrangian relaxation, general mixed-integer programming algorithms, and Benders decomposition. In addition the book discusses the recent trends in solving UC problems, especially stochastic programming models, and advanced techniques to handle large numbers of integer-decision variables due to scenario propagation.
