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	Titolo	Power System Operations / / by Antonio J. Conejo, Luis Baringo
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	ISBN	3-319-69407-3
	Edizione	[1st ed. 2018.]
	Descrizione fisica	1 online resource (XIII, 296 p. 109 illus.)
	Collana	Power Electronics and Power Systems, , 2196-3193
	Disciplina	333.79
	Soggetti	Electric power production
		Energy policy
		Energy and state
		Electrical Power Engineering
		Mechanical Power Engineering
		Energy Policy, Economics and Management
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Introduction -- Power system fundamentals: balanced three-phase circuits -- Power system components: models -- Power system steady-state operation: power flow -- Identifying the state of the power system: state estimation -- Power system secure operation: optimal power flow -- Centralized markets (à la US): day-ahead operation -- Decentralized markets (à la EU): day-ahead operation.
	Sommario/riassunto	This textbook provides a detailed description of operation problems in power systems, including power system modeling, power system steady-state operations, power system state estimation, and electricity markets. The book provides an appropriate blend of theoretical background and practical applications, which are developed as working algorithms, coded in Octave (or Matlab) and GAMS environments. This feature strengthens the usefulness of the book for both students and practitioners. Students will gain an insightful understanding of current power system operation problems in engineering, including: (i) the formulation of decision-making models, (ii) the familiarization with efficient solution algorithms for such models, and (iii) insights into these problems through the detailed analysis of numerous illustrative

examples. The authors use a modern, "building-block" approach to solving complex problems, making the topic accessible to students with limited background in power systems. Solved examples are used to introduce new concepts and each chapter ends with a set of exercises.