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# **River Publishers Book Catalogue**

Series in Power

River Publishers Series in Power

## Electrical Distribution Systems, Second Edition

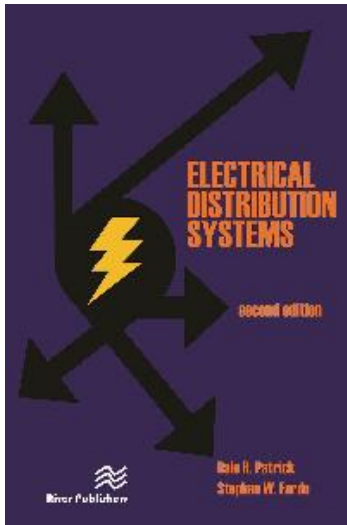
**Authors:**

Dale R. Patrick, Stephen W. Fardo

**ISBN:** 9788770223997

**Price:** £ 78.99 | \$ 130.00

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**Description:**

Comprehensive in scope, this book, now in its fully updated second edition, takes an applications-oriented approach to electrical distribution systems. All critical aspects of power production, distribution, control, conversion and measurement are presented.

The authors place emphasis on real-world applications, examining electrical distribution and associated system operation from a user's or technician's point of view. The use of an 'electrical power systems' model facilitates the reader's comprehensive understanding of electrical distribution, utilizing power distribution as a key starting point, and then applying that relationship to other important associated systems.

The final chapter of this new edition is re-focused to emphasize the economics of distribution systems, computer power requirements and current environmental considerations. The book provides a valuable desk reference for the working engineer, contractor or technician who needs a thorough application-based guide for finding the best solutions to today's electrical distribution challenges.



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## Energy Calculations and Problem Solving Sourcebook

**Authors:**

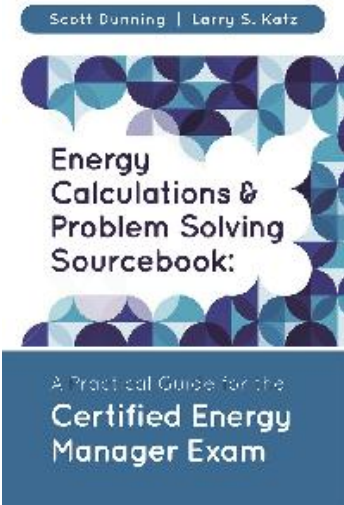
Scott Dunning and Larry S. Katz

**ISBN:** 9781138048522

**e-ISBN:** 9788770222594

**Price:** £ 99.99 | \$ 130.00

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**Description:**

Based on the Body of Knowledge, this book is designed to serve as a practical guide for energy professionals preparing to take AEE's Certified Energy Manager® (CEM®) examination. The reference presents an overview of the specific areas of expertise referenced in the current Body of Knowledge in a guided preparatory format, including detailed, specifically targeted reference materials. The full scope of energy calculations and problem solving strategies which must be mastered are presented, covering relevant codes and standards, energy accounting and economics, electrical, lighting and HVAC systems, motors and drives, industrial systems, building envelope, building automation and control systems, renewable energy, boiler and steam systems, thermal storage, maintenance, commissioning, alternative financing, and much more. Green Building, LEED and Energy Star programs are also addressed. The appendix provides a broad range of useful reference tables, as well as mathematical formulas specific to each specific area of energy management addressed. While aimed at those taking the ANSI-certified CEM exam, this text is also an excellent reference to be used throughout an energy manager's professional career.

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## Global Energy Market Trends

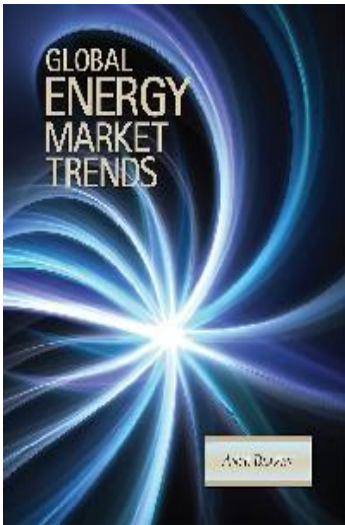
**Author:** Anco S. Blazev

**ISBN:** 9781498786577

**e-ISBN:** 9788770223348

**Price:** £ 105.00 | \$ 165.00

**Distributed exclusively by Routledge**



### Description:

As discussed in this text, countries with excess energy resources export these to countries that need them. This is an important function of the global energy markets, where energy sources, products and services are traded among countries and companies. While this is the primary activity in energy markets, it is only part of the entire global energy market scheme. The goal of this text is to analyze all sides of the energy markets in their physical, technological, economic, political, regulatory, environmental, financial, and legal aspects.

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## Smart Grid Planning and Implementation

**Author:** Clark W. Gellings, P.E.

**ISBN:** 9781498747813

**e-ISBN:** 9788770223270

**Price:** £ 115.00 | \$ 155.00

**Distributed exclusively by Routledge**



### Description:

This book is intended for electric utility managers, directors, and power system planners, regulators, and policy makers interested in the steps needed to realize the value of a modern power delivery system. This book describes the elements needed in planning and implementing a "Smart Grid" by outlining how the electricity delivery system can be modernized so it monitors, protects, and automatically optimizes the operation of its interconnected elements—from the central and distributed generator through the high-voltage network and distribution system, to energy storage installations and to end-use consumers and their thermostats, electric vehicles, appliances, and other household devices. This comprehensive guide highlights emerging concepts of cyber and physical security, resiliency, and the newest architecture—"The Integrated Grid." You'll gain an understanding of how a two-way flow of electricity and information can be used to create an automated, widely distributed energy delivery network.

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## Energy and Analytics

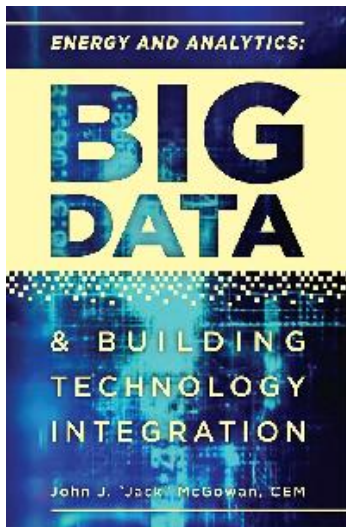
**Author:** John J. "Jack" McGowan, CEM

**ISBN:** 9781498744294

**e-ISBN:** 9788770223256

**Price:** £ 105.00 | \$ 145.00

**Distributed exclusively by Routledge**



### Description:

This book details how to leverage big data style analytics to manage and coordinate the key issues in both energy supply and demand. It presents a detailed explanation of the underlying systems technology that enables big data in buildings and how this technology provides added cost benefit from efficiency, onsite solar, and electricity markets. It is a primer on Building Automation Systems Standards, web services and electricity markets and programs plus a complete tutorial on energy analytics hardware, software, and Internet-enabled offerings that energy managers must understand today.



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## Simple Solutions to Energy Calculations, Fifth Edition

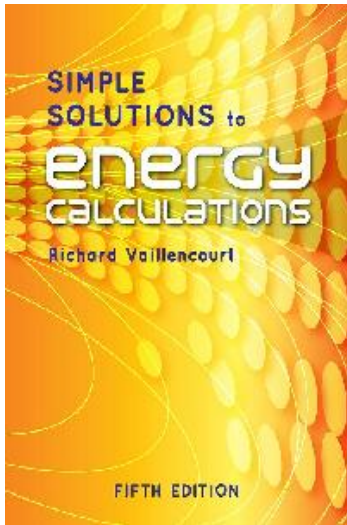
**Author:** Richard R. Vaillencourt

**ISBN:** 9781482217810

**e-ISBN:** 9788770223096

**Price:** £ 78.99 | \$ 110.00

**Distributed exclusively by Routledge**



### Description:

Completely revised and updated, this fifth edition of a bestseller helps building managers identify what to look for and how to evaluate before making a decision about which guarantee is better for their building and which ESCO can best deliver energy savings. This reference will save countless hours doing energy feasibility studies and associated calculations. The author, a practicing engineer, shares his secrets for simplifying complex energy calculations and demonstrates his unique, time-saving methods. Key topics covered include energy myths and magic, the walk-through audit, lighting, pumps, fans, motors, insulation, fuel switching, heat recovery, HVAC and a summary of energy calculations.

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## World ESCO Outlook

**Authors:**

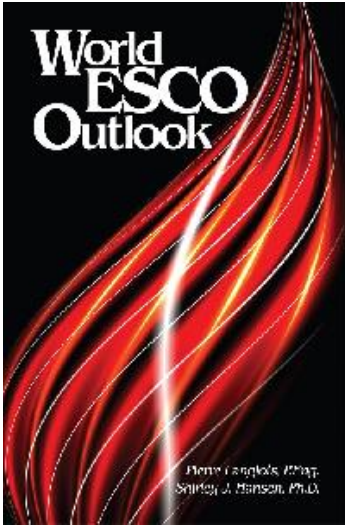
Pierre Langlois and Shirley J. Hansen

**ISBN:** 9781466558144

**e-ISBN:** 9788770223010

**Price:** £ 105.00 | \$ 145.00

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**Description:**

As country after country around the world embraces the idea of self-funding energy efficiency, an energy performance contracting (EPC) model emerges and then changes to meet local needs. This book captures this rapidly changing landscape and offers valuable insights into this fascinating industry. The authors have brought together the best of in-country experts from nearly 60 countries to share their insights as to what makes EPC successful in their specific environments. In telling their story, they also reveal some exciting new overseas market opportunities and provide the most complete insight available into the ESCO world.



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## Photovoltaics for Commercial and Utilities Power Generation

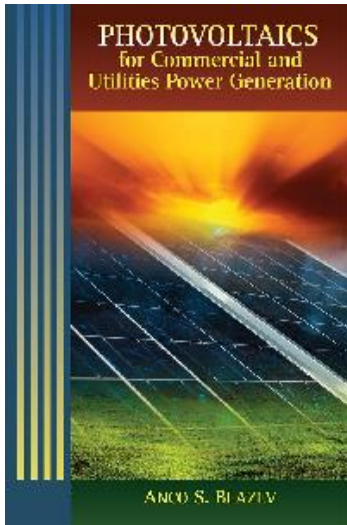
**Author:** Anco S. Blazev

**ISBN:** 9781439856314

**e-ISBN:** 9788770222945

**Price:** £ 120.00 | \$ 165.00

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### Description:

Photovoltaics for Commercial and Utilities Power Generation is an in-depth review of the solar industry development, and present day state-of-the-art. It emphasizes current and future applications of photovoltaic equipment in the commercial and utility energy sectors, highlighting its use in large scale power generating plants operating in the U.S. deserts.

The book reviews all key aspects of the photovoltaic technologies from a theoretical point of view, looking closely at their design parameters, materials, manufacturing, quality and performance. It also covers the practical applications, focusing on large scale photovoltaics as a major alternative energy source. The author examines the advantages and disadvantages of each of today's solar technologies and projects them into the future in search of optimized niche markets and maximum utilization.

Key technical issues related to: manufacturing and test procedures, product quality and safety, field performance, environmental impact, and other issues are thoroughly analyzed. Lack of standardized manufacturing processes and operating procedures, fluctuating political and regulatory policies, and the different financing, legal and marketing aspects of the solar industry are amongst the topics discussed in detail as well. Photovoltaics for Commercial and Utilities Power Generation provides a 360 degree view of today's solar energy products and the related manufacturing and operating procedures. It exposes the issues plaguing the solar industry, with the ultimate goal of finding the best solutions as needed to bring photovoltaic technologies to acceptable level of efficient, reliable and cost-effective operation in large scale power generation plants.

Large scale PV power generation is one of the keys to meeting the energy and environmental demands of the 21st century. This book identifies the major issues and suggests solutions to the obstacles hindering the large scale deployment of photovoltaics in the U.S. and abroad.



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## Small-Scale Cogeneration Handbook, Fourth Edition

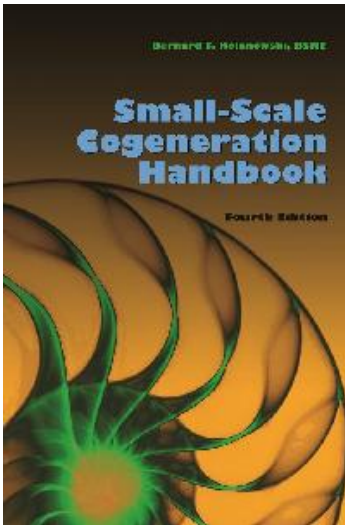
**Author:** Bernard F. Kolanowski

**ISBN:** 9781439876244

**e-ISBN:** 9788770222976

**Price:** £ 95.99 | \$ 130.00

**[Distributed exclusively by Routledge](#)**



### **Description:**

Cogeneration can now turn up to 90% of the fuel burned into usable energy — compared to just 52% of the fuel typically burned in the local power plant and in a separate existing hot water heating system. The fully updated fourth edition of this comprehensive, bestselling reference provides a wealth of information to assist you in evaluating the feasibility and potential benefits of cogeneration for your facility. Covered in detail are recent regulatory developments and their impact, system selection and sizing, permitting requirements, operation and maintenance, financing, technology basics, micro turbines, absorption chillers, distributed generation, and case histories.

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## ESCOs Around the World

**Editors:**

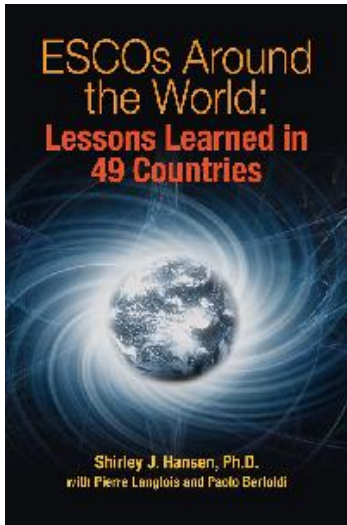
Shirley J. Hansen, Pierre Langlois and Paolo Bertoldi

**ISBN:** 9781439811016

**e-ISBN:** 9788770222808

**Price:** £ 95.00 | \$ 130.00

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**Description:**

This book provides an insightful assessment of today's ESCO (energy services) industry around the world. Analyzing current trends, the volume discusses opportunities and problems of the ESCO industry in each country. It includes significant contributions by Pierre Langlois and Paolo Bertoldi. The author and contributors have reached into the far corners of the world to get trusted colleagues to tell the story of the energy services industry's development in their respective countries, and in their own words. Chapters cover selected countries from Western Europe, Eastern Europe, Africa, the Middle East, Asia, North America, South America, New Zealand and Australia, as well as the overall global picture.

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## Electrical Power Systems Technology, Third Edition

**Authors:**

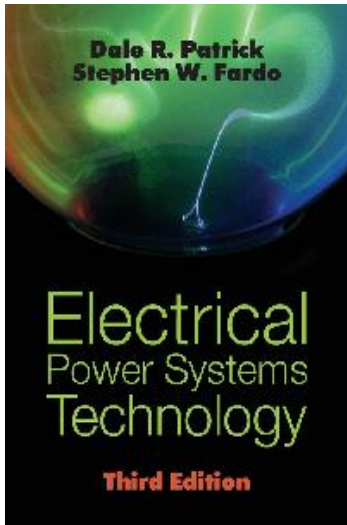
Dale R. Patrick and Stephen W. Fardo

**ISBN:** 9781439800270

**e-ISBN:** 9788770222778

**Price:** £ 100.00 | \$ 140.00

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**Description:**

Covering the gamut of technologies and systems used in the generation of electrical power, this reference provides an easy-to-understand overview of the production, distribution, control, conversion, and measurement of electrical power. The content is presented in an easy to understand style, so that readers can develop a basic comprehensive understanding of the many parts of complex electrical power systems. The authors describe a broad array of essential characteristics of electrical power systems from power production to its conversion to another form of energy. Each system is broken down into sub systems and equipment that are further explored in the chapters of each unit. Simple mathematical presentations are used with practical applications to provide an easier understanding of basic power system operation. Many illustrations are included to facilitate understanding. This new third edition has been edited throughout to assure its content and illustration clarity, and a new chapter covering control devices for power control has been added.

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## Hydrogen & Fuel Cells

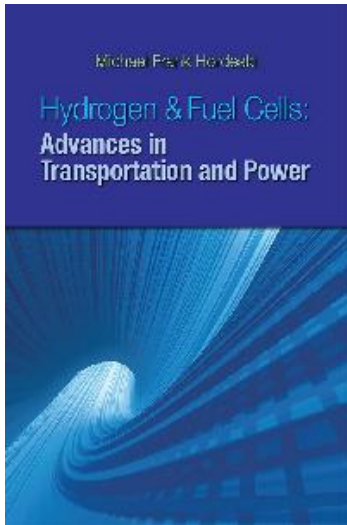
**Author:** Michael Frank Hordeski

**ISBN:** 9781420071566

**e-ISBN:** 9788770222709

**Price:** £ 100.00 | \$ 140.00

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### **Description:**

The hydrogen car has been proposed as the solution to our oil problems, but how would it work, and what potential problems associated with it? This book addresses these questions and provides specifics about current developments toward a hydrogen-based energy infrastructure. It offers the reader an informed look at the current state of fuel cell power and transportation technology, and where it's headed.

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## Electrical Distribution Engineering, Third Edition

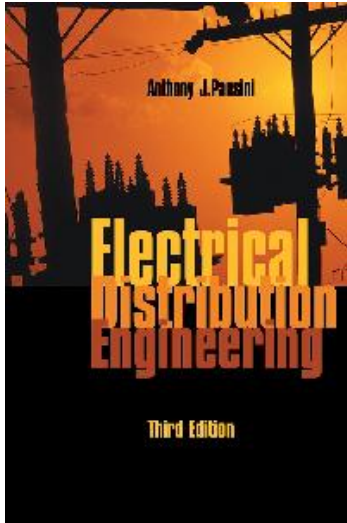
**Author:** Anthony J. Pansini

**ISBN:** 9780849382499

**e-ISBN:** 9788770223379

**Price:** £ 95.99 | \$ 130.00

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### Description:

Newly revised and edited, this comprehensive volume provides up-to-date information on the latest developments which impact planning and design of electrical distribution systems. Addressing topics such as mechanical designs, materials improvements, total quality control, computer, and electronic circuitry, this book answers questions on everything from the basics of electrical and mechanical design to the selection of optimum materials and equipment. Beginning with initial planning consideration, this book gives a step-by-step guide through each stage of mechanical design of the principal facilities, including substation installation. Also included is data-backed assessment of the latest advance in materials, conductors, insulators, transformers, regulators, capacitors, switches, and substation equipment. Also covered is key non-technical and operation considerations such as safety, quality of service, load shedding, brownouts, demand controls and more. New material in the third edition includes data on polymer insulators, expansion of coverage of cogeneration, distributed generation and underground systems.

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## Guide to Electric Power Generation, Third Edition

**Authors:**

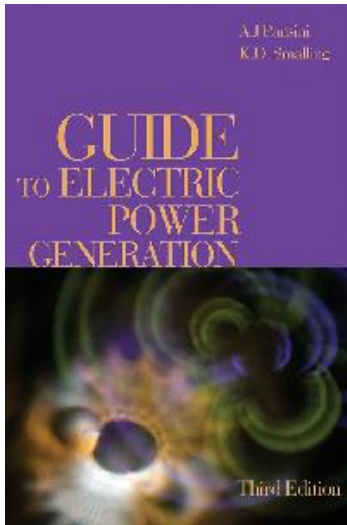
K.D. Smalling and Anthony J. Pansini

**ISBN:** 9780849395116

**e-ISBN:** 9788770222563

**Price:** £ 76.99 | \$ 120.00

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**Description:**

This fully illustrated reference brings you detailed coverage of the full spectrum of equipment and processes used in the production of electricity, from the basics of energy conversion, to prime movers, generators, and boilers. The reader will find much useful information on the characteristics of fuels, including coal, oil, natural gas, nuclear and others, along with proper methods for handling them and their residues. Also extensively covered are internal combustion engines, steam turbines, and reciprocating steam engines. Feedwater treatment, ash removal reliability, operation and maintenance considerations are all examined in detail. The second edition expands coverage of gasification of coal, gas turbines and effective use of generation in place of efficiency measures.

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## Power Transmission & Distribution, Second Edition

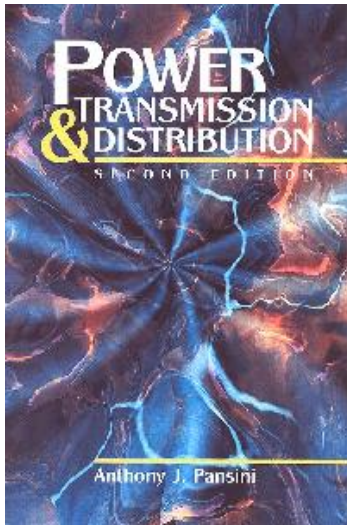
**Author:** Anthony J. Pansini

**ISBN:** 9780849350344

**e-ISBN:** 9788770222495

**Price:** £ 100.00 | \$ 140.00

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### Description:

Our ever-increasing dependence on electricity demands improvements in the quality of its supply. The deregulation of electric (and other) utilities, the events of 9/11, and the blackouts in North America, London, and the Italian peninsula evidence this need. This book looks at our current transmission systems and how loop circuits can substantially improve the reliability of transmission lines, essentially to provide a two-way feed to the consumer and insuring continuity of service if a fault develops on the circuit. It also covers distribution systems and includes information on how small generating units can be connected directly to the distribution system in the same manner as in larger cogenerating units.



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## Guide to Electrical Power Distribution Systems, Sixth Edition

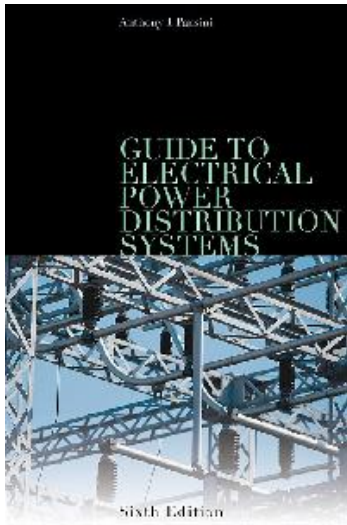
**Editor:** Anthony J. Pansini

**ISBN:** 9780849336669

**e-ISBN:** 9788770222457

**Price:** £ 90.00 | \$ 125.00

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### Description:

Written by a highly regarded power industry expert, this comprehensive manual covers in full detail all aspects of electric power distribution systems, both as they exist today and as they are evolving toward the future. A new chapter examines the impact of the emergence of cogeneration and distributed generation on the power distribution network. Topics include an overview of the process of electricity transmission and distribution, a thorough discussion of each component of the system - conductor supports, insulators and conductors, line equipment, substations, distribution circuits and more - as well as both overhead and underground construction considerations. Improvements in both materials and methods of power distribution are also explored, including the trend toward gradual replacement of heavier porcelain insulators with lighter polymer ones. The complex aspects of electric power distribution are explained in easy-to-understand, non-technical language.

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## Transmission Line Reliability and Security

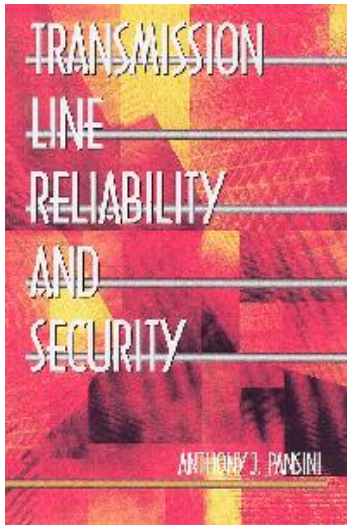
**Author:** Anthony J. Pansini

**ISBN:** 9780824756710

**e-ISBN:** 9788770222440

**Price:** £ 78.99 | \$ 110.00

**Distributed exclusively by Routledge**



### Description:

This book discusses the problems of reliability caused by the deregulation of electric utilities and those of security created by the events of September 11. Author Anthony Pansini, a licensed professional engineer and Life Fellow of IEEE, suggests solutions, related to the design, construction, maintenance, and operation of transmission facilities, for maintaining and improving the reliability of deregulated transmission systems, and covers the National Transmission Grid Study in depth. He includes coverage of phenomena occurring in electric theory, in non- or semi-technical terms, for the benefit of the non-engineer.

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## Manual for Intelligent Energy Services

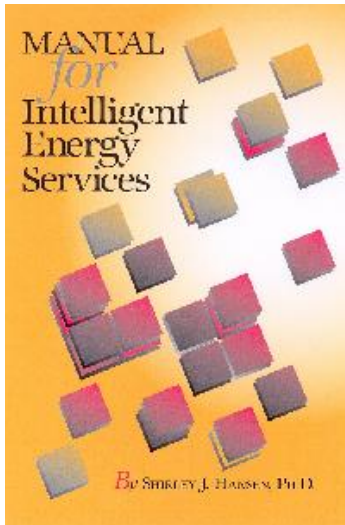
**Author:** Shirley J. Hansen

**ISBN:** 9780824709297

**e-ISBN:** 9788770222273

**Price:** £ 95.99 | \$ 130.00

**[Distributed exclusively by Routledge](#)**



### Description:

This book is dedicated to the front line manager of America's economic life blood: energy. It is designed to help owners and managers first assess their organization's energy conditions, and then determine the best outsourcing strategies for needed services. The author shares experiences drawn from over 25 years in the energy business and work in over 30 countries, and provides succinct case studies to expand on important points raised and to provide insight into their application. The final section takes into account recent events which have highlighted the unpredictable situation surrounding our energy supplies, as well as how to make the most of it.