

1. Record Nr.	UNINA9910828952503321
Autore	Shapiro Ian M.
Titolo	Energy audits and improvements for commercial buildings : a guide for energy managers and energy auditors / / Ian M. Shapiro
Pubbl/distr/stampa	Hoboken, New Jersey : , : John Wiley & Sons, , [2016] ©2016
ISBN	1-119-08422-9 1-119-08421-0
Descrizione fisica	1 online resource (699 p.)
Disciplina	696
Soggetti	Commercial buildings - Energy conservation Energy auditing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Title Page; Copyright; Table of Contents; Acknowledgments; Chapter 1: Introduction; This Book's Focus; Seeing in Buildings; Goals of Energy Improvements; Chapter 2: Overview; Principles; Trends; Definitions; Units of Measure; The Role of the Energy Auditor; The Role of the Energy Manager; Types of Energy Audits; Traps and Pitfalls; The Energy Efficiency Field; Reference; Chapter 3: Field Guide; Owner Records; Tools; Types of Measurements; Involving Energy Managers in Field Measurements; Reading Nameplates; Anomalies and Catastrophes; Field Guide Summary; References; Chapter 4: Envelope Insulation Windows; Doors; Infiltration; References; Chapter 5: Lighting; Lighting Basics; Field Measurements and Observations; Lighting Improvements; Specific Lighting Applications; References; Chapter 6: Heating; Hot Water Boilers; Steam Boilers; Furnaces; Electric Resistance Heat; Specialty Heating Systems; Destratification; References; Chapter 7: Cooling and Integrated Heating/Cooling Systems; Cooling System Types; Room Air Conditioners; Heat Pumps; Split Systems; Single-Package Systems; Chillers; References; Chapter 8: Heating and Cooling Distribution; Forced Air Systems Water and Steam Systems Refrigerant Systems; References; Chapter 9: Ventilation; Background; Identifying Ventilation Equipment; Establishing Existing Ventilation Rates and Electric Power Draw; Codes and

Standards; Estimating Ventilation Energy Use; Ventilation Improvements; References; Chapter 10: Identifying Heating and Cooling Equipment; References; Chapter 11: Controls; Thermal Zoning; Stand-Alone Controls; Central Controls; Control Improvements; References; Chapter 12: Water; Water Service; Domestic Hot Water Heating; Domestic Hot Water Distribution; Water Loads; References Chapter 13: Electric Loads (Other than Lighting) Motors and Motor Drives; Elevators and Escalators; Transformers; Commercial Refrigeration; Air Compressors; Ceiling Fans; Plug Loads; References; Chapter 14: Gas Loads (Other than Heating and Domestic Hot Water); Cooking Equipment; Gas Clothes Dryers; Gas Leaks; References; Chapter 15: Advanced Energy Improvements; Combined Heat and Power; Heat Pumps; Envelope; Heating/Cooling Distribution; Lighting; Controls; Renewable Energy; Evaluating Buildings that Already Have Renewables; Improving to Net-Zero or Very Low Energy Use Other Advanced Improvements References; Chapter 16: Estimating Savings; Isolated versus Integrated Estimates; Isolated Savings Estimates; Integrated Savings Estimates; Information Sources for Estimating Energy Savings; Summary; References; Chapter 17: Financial Aspects of Energy Improvements; Energy Cost Savings; Maintenance Costs; Cost Estimating; Financial Metrics; Expected Useful Life of Improvements; Cost Control during the Energy Audit Phase; Funding and Financing; Impact of Energy Improvements on Building Value and Rental Premiums; References; Chapter 18: Reporting; Energy Audit Reports

Writing Strong Workscopes