

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 50002 — Energy Audits Requirements

ISO Certification Programme



LAPT — London Academy of Professional Training

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Reference ENG-SAV-50002 • ISO Energy

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AT A GLANCE

REFERENCE	ENG-SAV-50002
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

Energy Audit Principles

5 chapters · 30 classes 85 marks

• 1 Understanding Energy Audits and Their Importance — 6 classes

› 1.1 Define Energy Audits and Their Objectives

› 1.2 Identify the Key Components of an Energy Audit

› 1.3 Explore the Different Types of Energy Audits

› 1.4 Analyze the Benefits of Conducting Energy Audits

› 1.5 Review ISO 50002 Standards for Energy Audits

› 1.6 Implement Best Practices for Conducting Effective Energy Audits

• 2 ISO 50002 – Framework and Requirements — 6 classes

› 2.1 Understand the ISO 50002 Framework Overview

› 2.2 Identify Key Requirements for Energy Audits

› 2.3 Explore the Roles of Leadership in ISO 50002 Compliance

› 2.4 Analyze the Process of Conducting an Energy Audit

› 2.5 Evaluate Tools and Techniques for Energy Data Collection

› 2.6 Develop an Action Plan for Implementing Audit Findings

• 3 Planning and Preparing for an Energy Audit — 6 classes

› 3.1 Define the Purpose and Scope of an Energy Audit

› 3.2 Identify Key Stakeholders and Their Roles in the Audit Process

› 3.3 Gather and Analyze Preliminary Data for Energy Consumption

› 3.4 Develop an Energy Audit Plan: Methodologies and Approaches

› 3.5 Create a Timeline and Checklist for Audit Execution

› 3.6 Prepare Communication Strategies for Engaging Participants

• 4 Conducting the Energy Audit: Techniques and Methodologies — 6 classes

› 4.1 Identify Key Components of Energy Audit Methodologies

› 4.2 Analyze Data Collection Techniques for Energy Audits

› 4.3 Evaluate Energy Audit Tools and Technologies

› 4.4 Apply Practical Assessment Techniques in Energy Audits

› 4.5 Develop a Comprehensive Energy Audit Report

› 4.6 Implement Recommendations for Energy Efficiency Improvements

• 5 Reporting Findings and Developing Actionable Recommendations — 6 classes

› 5.1 Analyze Audit Findings for Energy Efficiency Insights

› 5.2 Prioritize Issues Based on Impact and Feasibility

› 5.3 Develop SMART Objectives for Energy Reduction Initiatives

› 5.4 Create an Action Plan with Clear Roles and Responsibilities

› 5.5 Communicate Recommendations Effectively to Stakeholders

› 5.6 Monitor Progress and Adapt Strategies for Continuous Improvement

• 1 Understanding Energy Data: Types and Sources — 6 classes

- › 1.1 Identify Different Types of Energy Data
- › 1.2 Explore Primary Sources of Energy Data
- › 1.3 Analyze Secondary Sources of Energy Data
- › 1.4 Evaluate the Quality of Energy Data
- › 1.5 Correlate Energy Data with Performance Metrics
- › 1.6 Apply Energy Data Analysis to Identify Savings Opportunities

• 2 Data Collection and Validation Techniques — 6 classes

- › 2.1 Identify Key Data Collection Methods for Energy Audits
- › 2.2 Evaluate the Importance of Data Validation in Energy Analysis
- › 2.3 Explore Techniques for Ensuring Data Accuracy
- › 2.4 Implement Best Practices for Data Collection Protocols
- › 2.5 Utilize Software Tools for Data Validation and Analysis
- › 2.6 Apply Data Collection Techniques in a Sample Energy Audit Scenario

• 3 Energy Consumption Patterns: Identifying Trends — 6 classes

- › 3.1 Analyze Historical Energy Consumption Data
- › 3.2 Identify Seasonal Consumption Trends
- › 3.3 Compare Energy Use Across Different Facilities
- › 3.4 Evaluate Impact of External Factors on Energy Use
- › 3.5 Utilize Data Visualization Tools for Trend Analysis
- › 3.6 Develop Actionable Insights from Consumption Patterns

• 4 Statistical Analysis for Energy Data Interpretation — 6 classes

- › 4.1 Understand Key Statistical Concepts for Energy Analysis
- › 4.2 Collect and Organize Energy Data for Statistical Review
- › 4.3 Analyze Central Tendency Measures: Mean, Median, and Mode
- › 4.4 Evaluate Data Dispersion: Range, Variance, and Standard Deviation
- › 4.5 Apply Correlation and Regression Analysis to Energy Data
- › 4.6 Interpret Statistical Results to Drive Energy Efficiency Decisions

• 5 Reporting and Communicating Energy Savings Results — 6 classes

- › 5.1 Identify Key Metrics for Energy Savings Reporting
- › 5.2 Analyze Data Sources for Accurate Energy Reporting
- › 5.3 Visualize Energy Data Trends and Savings
- › 5.4 Communicate Energy Savings to Stakeholders Effectively
- › 5.5 Develop Actionable Recommendations Based on Energy Reports
- › 5.6 Create a Continuous Improvement Plan for Energy Efficiency

• 1 Understanding Energy Performance Metrics and Indicators — 6 classes

- › 1.1 Define Key Energy Performance Metrics
- › 1.2 Analyze Common Energy Indicators
- › 1.3 Evaluate Energy Consumption Patterns
- › 1.4 Compare Energy Performance Against Benchmarks
- › 1.5 Identify Areas for Energy Efficiency Improvement
- › 1.6 Develop an Action Plan Based on Performance Findings

• 2 Conducting Energy Audits: Methodologies and Best Practices — 6 classes

- › 2.1 Identify the Goals and Scope of Energy Audits
- › 2.2 Assess Existing Energy Usage and Performance Data
- › 2.3 Select Appropriate Methodologies for Energy Auditing
- › 2.4 Conduct On-Site Inspections and Measurements
- › 2.5 Analyze Data and Identify Energy Saving Opportunities
- › 2.6 Develop and Present Effective Audit Reports

• 3 Data Collection Techniques for Energy Performance Analysis — 6 classes

- › 3.1 Identify Key Data Sources for Energy Performance Analysis
- › 3.2 Assess the Role of Measurement Instruments in Data Collection
- › 3.3 Implement Data Collection Techniques for Accurate Energy Audits
- › 3.4 Analyze Collected Data for Energy Performance Insights
- › 3.5 Utilize Software Tools for Data Management and Reporting
- › 3.6 Present Energy Performance Findings and Recommendations Effectively

• 4 Identifying Energy Efficiency Opportunities through Audits — 6 classes

- › 4.1 Define Key Concepts in Energy Audits
- › 4.2 Identify Types of Energy Audits and Their Purposes
- › 4.3 Assess Current Energy Performance Indicators
- › 4.4 Explore Common Energy Efficiency Opportunities
- › 4.5 Conduct a Walkthrough Audit to Spot Inefficiencies
- › 4.6 Develop an Action Plan for Implementing Efficiency Improvements

• 5 Reporting and Communicating Energy Audit Results Effectively — 6 classes

- › 5.1 Identify Key Findings from Energy Audits
- › 5.2 Develop Clear and Concise Audit Reports
- › 5.3 Utilize Visual Tools to Present Energy Data
- › 5.4 Tailor Communication Strategies for Stakeholders
- › 5.5 Recommend Actionable Energy Efficiency Measures
- › 5.6 Evaluate the Impact of Audit Results on Organizational Practices

• 1 Understanding ISO 50002 Standards and Their Importance — 6 classes

- › 1.1 Explore the Fundamentals of ISO 50002 Standards
- › 1.2 Analyze the Key Components of Energy Audits
- › 1.3 Identify Benefits of Implementing ISO 50002 Standards
- › 1.4 Compare ISO 50002 with Other Energy Management Standards
- › 1.5 Discuss Leadership Roles in Energy Audit Implementation
- › 1.6 Develop an Action Plan for Compliance with ISO 50002

• 2 Conducting Pre-Audit Planning and Preparation — 6 classes

- › 2.1 Define Objectives for Energy Audits
- › 2.2 Identify Key Stakeholders and Roles
- › 2.3 Gather and Analyze Preliminary Data
- › 2.4 Develop Audit Scope and Boundaries
- › 2.5 Create a Detailed Audit Plan and Schedule
- › 2.6 Establish Communication Protocols for the Audit

• 3 Executing the Energy Audit Process — 6 classes

- › 3.1 Identify Key Objectives for the Energy Audit
- › 3.2 Gather Relevant Data and Establish Baselines
- › 3.3 Conduct Preliminary Site Assessments Effectively
- › 3.4 Analyze Energy Consumption Patterns and Identify Opportunities
- › 3.5 Develop Actionable Recommendations for Improvement
- › 3.6 Communicate Findings and Implement Changes

• 4 Identifying Opportunities for Energy Efficiency Improvements — 6 classes

- › 4.1 Analyze Current Energy Consumption Patterns
- › 4.2 Identify Key Areas for Improvement in Energy Use
- › 4.3 Evaluate Existing Energy Efficiency Technologies
- › 4.4 Conduct Stakeholder Consultation for Energy Insights
- › 4.5 Prioritize Opportunities Based on Cost-Benefit Analysis
- › 4.6 Develop Action Plans for Implementation of Improvements

• 5 Developing and Implementing Action Plans for Energy Savings — 6 classes

- › 5.1 Assess Current Energy Use and Identify Savings Opportunities
- › 5.2 Set Clear and Measurable Energy Savings Goals
- › 5.3 Engage Stakeholders in the Action Plan Development Process
- › 5.4 Design Effective Action Plans for Energy Efficiency Improvements
- › 5.5 Implement Action Plans: Best Practices and Strategies
- › 5.6 Monitor Progress and Adjust Action Plans for Continuous Improvement

• 1 Understanding Energy Efficiency Principles — 6 classes

- › 1.1 Define Energy Efficiency and Its Importance in Leadership
- › 1.2 Identify Key Principles of Energy Management
- › 1.3 Analyze the Benefits of Implementing Energy Efficiency Measures
- › 1.4 Assess Common Energy Efficiency Techniques and Technologies
- › 1.5 Evaluate Energy Audits as a Tool for Leadership in Efficiency
- › 1.6 Develop an Action Plan for Enhancing Energy Efficiency in Organizations

• 2 ISO 50002 Standards and Energy Audits**• 3 Leadership Roles in Energy Management****• 4 Strategic Planning for Energy Efficiency Projects****• 5 Driving Cultural Change for Sustainable Energy Practices**

• 1 Understanding ISO 50002: Framework and Principles — 6 classes

- › 1.1 Explore the Objectives of ISO 50002 for Energy Audits
- › 1.2 Identify Key Principles Underpinning ISO 50002 Standards
- › 1.3 Analyze the Structure and Components of the ISO 50002 Framework
- › 1.4 Discuss the Importance of Leadership in Energy Audits
- › 1.5 Examine Case Studies Illustrating Successful ISO 50002 Implementations
- › 1.6 Apply ISO 50002 Principles to Conduct a Mock Energy Audit

• 2 Planning and Preparing for Energy Audits — 6 classes

- › 2.1 Define the Objectives of Energy Audits
- › 2.2 Identify Key Stakeholders and Their Roles
- › 2.3 Develop an Energy Audit Scope and Approach
- › 2.4 Prepare a Detailed Energy Audit Checklist
- › 2.5 Schedule and Coordinate Audit Activities
- › 2.6 Establish Communication Protocols for Auditors

• 3 Conducting Field Audits: Techniques and Tools — 6 classes

- › 3.1 Identify Key Objectives for Field Audits
- › 3.2 Select Appropriate Audit Tools and Equipment
- › 3.3 Implement Best Practices for Data Collection
- › 3.4 Analyze Energy Consumption Patterns on-site
- › 3.5 Document Findings and Recommendations Effectively
- › 3.6 Present Audit Results to Stakeholders

• 4 Analyzing Audit Findings and Reporting — 6 classes

- › 4.1 Identify Key Metrics in Audit Findings
- › 4.2 Analyze Patterns in Energy Consumption Data
- › 4.3 Correlate Audit Findings with Energy Management Goals
- › 4.4 Develop Actionable Recommendations Based on Findings
- › 4.5 Create a Structured Format for Reporting Results
- › 4.6 Present Audit Findings Effectively to Stakeholders

• 5 Implementing and Sustaining Energy Efficiency Measures — 6 classes

- › 5.1 Identify Key Energy Efficiency Opportunities
- › 5.2 Develop an Action Plan for Energy Efficiency Initiatives
- › 5.3 Implementing Strategies to Achieve Energy Savings
- › 5.4 Monitoring and Measuring Energy Efficiency Performance
- › 5.5 Engaging Stakeholders in Energy Efficiency Efforts
- › 5.6 Sustaining Energy Efficiency Improvements Over Time