

## ENERGY & ENERGY MANAGEMENT SYSTEM

*“Empowering Organizations to Reduce Costs, Improve Efficiency, and Achieve Sustainable Energy Performance.”*

### Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

▶ **Available delivery methods:** In-House Training

### Introduction

Energy is one of the most significant operational costs for any organization. With increasing pressure to reduce emissions and achieve sustainability targets, implementing a structured Energy Management System (EnMS) is no longer optional. This 5-day comprehensive course equips participants with the knowledge and skills to understand energy systems, identify savings opportunities, and implement ISO 50001-based Energy Management Systems to ensure continual improvement and compliance.

### Objectives

By the end of this course, participants will be able to:

- Understand the fundamentals of energy and energy efficiency
- Identify major energy consumers in industrial and commercial facilities
- Conduct energy audits and interpret energy performance data
- Design and implement an Energy Management System (EnMS) based on ISO 50001
- Set realistic energy targets and develop an energy baseline
- Monitor, measure, and optimize energy performance

## Why Attend

This training will help you develop practical strategies to reduce energy consumption, lower costs, and improve environmental performance. Learn to transition from reactive energy control to proactive, system-based energy management aligned with international standards.

## Target Audience

- Energy Managers and Facility Engineers
- Environmental and Sustainability Officers
- Operations and Maintenance Supervisors
- Utility and Plant Engineers
- Internal Auditors and QHSE Professionals
- Anyone involved in ISO 50001 or energy efficiency projects

## Individual Benefits

- Gain expertise in energy auditing and energy savings techniques
- Develop skills to implement and maintain ISO 50001 EnMS
- Improve professional value in sustainability and green operations
- Increase understanding of energy efficiency technologies

## Organizational Benefits

- Reduce energy bills and improve energy efficiency
- Comply with local and international energy regulations
- Build a strong internal energy management culture
- Contribute to sustainability goals and carbon reduction

## Instructional Methodology

- Interactive presentations and real-world case studies
- Hands-on energy audit simulations
- EnMS documentation practice and templates
- Group exercises and KPI development
- Final group project with feedback

## Course Outline

DETAILED 5-DAY COURSE OUTLINE (Customizable) Training Hours: 07:30 AM – 03:30 PM Daily Format: 3–4 Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

### DAY 1 - INTRODUCTION TO ENERGY & ENERGY MANAGEMENT

- Module 1: Fundamentals of Energy Types, Units & Principles (07:30 – 09:30)
- Module 2: Overview of Energy Consumption Patterns in Industries (09:45 – 11:15)
- Module 3: Drivers for Energy Efficiency: Economic & Environmental (11:30 – 01:00)
- Module 4: Introduction to Energy Management Standards (ISO 50001) (02:00 – 03:30)

### DAY 2 - ENERGY AUDITING & PERFORMANCE ANALYSIS

- Module 1: Steps of an Effective Energy Audit (07:30 – 09:30)
- Module 2: Energy Data Collection, Monitoring & Verification (09:45 – 11:15)
- Module 3: Energy Performance Indicators (EnPIs) and Baselines (11:30 – 01:00)
- Module 4: Workshop: Conducting a Mini Energy Audit (02:00 – 03:30)

### DAY 3 - ISO 50001 ENERGY MANAGEMENT SYSTEM

- Module 1: ISO 50001:2018 Standard Structure and Key Concepts (07:30 – 09:30)
- Module 2: Context of the Organization, Leadership & Planning (09:45 – 11:15)
- Module 3: Operational Control, Monitoring and Measurement (11:30 – 01:00)
- Module 4: Documentation & Internal Audit Requirements (02:00 – 03:30)

### DAY 4 - ENERGY EFFICIENCY OPPORTUNITIES & SOLUTIONS

- Module 1: HVAC, Lighting, Boilers, Motors – Efficiency Improvements (07:30 – 09:30)
- Module 2: Energy Recovery Systems and Smart Technologies (09:45 – 11:15)
- Module 3: Financial Analysis: ROI, Payback & Life Cycle Costing (11:30 – 01:00)
- Module 4: Case Study: Developing an Energy Efficiency Action Plan (02:00 – 03:30)

### DAY 5 - IMPLEMENTATION, VERIFICATION & CONTINUAL IMPROVEMENT

- Module 1: Planning the EnMS Implementation Roadmap (07:30 – 09:30)
- Module 2: Integration with ISO 9001 / ISO 14001 / ISO 45001 (09:45 – 11:15)
- Module 3: Review of Challenges, Barriers, and Success Factors (11:30 – 01:00)
- Module 4: Final Project: EnMS Planning for a Sample Organization + Wrap-Up (02:00 – 03:30)

## Certification

Participants will receive a Certificate of Completion in Energy & Energy Management Systems, demonstrating competency in energy auditing and EnMS implementation aligned with ISO 50001.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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**In-House / Customized Training**

Interested in running this course for your team?

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