

TRAINING TITLE ENERGY EFFICIENCY BENCHMARKING

Training Duration 5 day

Training Venue and Dates

In any of the 4 or 5-star hotels. The exact venue will be informed later.

Training Fees

• \$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch

Training Certificate

Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING DESCRIPTION

The Energy Efficiency Benchmarking course is designed to provide participants with a solid understanding of how to assess, measure, and improve energy efficiency within an organization or industrial facility. The course covers energy efficiency benchmarking concepts, tools, best practices, and methodologies to compare energy performance across different sectors. Participants will learn how to set energy performance targets, identify opportunities for improvement, and implement effective energy-saving strategies.

TRAINING OBJECTIVES

By the end of the course, participants will be able to understand

- To understand the fundamentals of energy efficiency and its importance in sustainability.
- To learn how to conduct energy audits and assess energy usage patterns.
- To understand the role of benchmarking in improving energy performance.
- To develop skills for setting energy efficiency targets and implementing improvements.
- To explore international energy efficiency standards and how to apply them in practice.

WHO SHOULD ATTEND?

Energy Managers and Auditors

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- Facility and Plant Managers
- Engineers and Technicians involved in energy management
- Environmental Sustainability Officers
- Professionals in energy consulting, project management, and design
- Corporate managers or anyone interested in enhancing energy efficiency in their organizations

TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

COURSE PROGRAM:

Day 1: Introduction to Energy Efficiency and Benchmarking

- Overview of energy efficiency and sustainability concepts
- Benefits of energy efficiency: Cost savings, environmental impact, and regulatory compliance
- Introduction to energy benchmarking: What is it, and why is it important?
- Understanding energy performance indicators (EnPIs)
- Key factors affecting energy performance in different industries

Day 2: Energy Audits and Data Collection

- Introduction to energy audits: Purpose and methodology
- Types of energy audits (preliminary, detailed, continuous monitoring)
- Tools for data collection: Energy meters, software, and monitoring systems
- Analyzing energy consumption patterns and identifying energy-intensive areas

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How to conduct a walkthrough audit to assess energy usage

Day 3: Energy Efficiency Benchmarks and Performance Indicators

- Defining benchmarks: National, industry-specific, and international benchmarks
- Creating energy efficiency performance metrics: Specific Energy Consumption (SEC), energy intensity
- Best practices for benchmarking in various sectors: Manufacturing, commercial, and industrial buildings
- Analyzing energy consumption data and identifying performance gaps

Day 4: Setting Energy Efficiency Targets and Implementing Improvements

- How to set realistic energy efficiency targets based on benchmarks
- Identifying energy-saving opportunities: Process improvements, equipment upgrades, and behavior changes
- Strategies for energy conservation: Load shifting, equipment retrofitting, and automation
- Implementing energy management systems (ISO 50001, Energy Star, etc.)
- Developing an energy efficiency action plan

Day 5: Measuring Results and Continuous Improvement

- Monitoring and verifying energy savings after implementation
- Performance evaluation: Tools for tracking improvements and comparing with benchmarks
- Continuous improvement strategies in energy efficiency
- Leveraging technology and innovation: Smart grids, IoT, energy management software
- Best practices for maintaining energy efficiency gains long-term

NOTE:
Pre-& Post Tests will be conducted.
<u>Case Studies, Group Exercises, Group Discussions, Last Day reviews, and assessments will</u>
be carried out.
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