



Energy Efficiency Benchmarking

Course Introduction:

This course provides an in-depth theoretical understanding of energy efficiency benchmarking, emphasizing the principles, methodologies, and frameworks essential for effective energy performance assessment.

Course Objectives:

Upon the successful completion of this course, each participant will be able to:-

- Grasp the theoretical concepts behind energy efficiency and benchmarking.
- Understand various methodologies used in energy benchmarking.
- Explore metrics and indicators relevant to energy performance.
- Analyze the role of benchmarking in achieving sustainability goals.
- Discuss theoretical frameworks for continuous improvement in energy efficiency

Who Should Attend?

- Energy managers and sustainability professionals
- Facility managers and operators
- Engineers and technicians
- Individuals interested in corporate sustainability initiatives

Course Outline:

Day 1: Introduction to Energy Efficiency and Benchmarking

- **Session 1: Fundamentals of Energy Efficiency**
 - Definition and importance of energy efficiency
 - Key principles and benefits
- **Session 2: Overview of Benchmarking**
 - Definition of benchmarking in the context of energy
 - Historical perspective and evolution of benchmarking practices

Day 2: Methodologies for Energy Benchmarking

- **Session 1: Data Collection and Normalization**
 - Importance of accurate data collection
 - Techniques for normalizing data (climate, occupancy, etc.)
- **Session 2: Analyzing Data for Benchmarking**
 - Overview of statistical methods used in benchmarking

- Understanding variability and performance indicators

Day 3: Metrics and Performance Indicators

- **Session 1: Key Performance Indicators (KPIs)**
 - Definition and significance of KPIs in energy efficiency
 - Common KPIs used in various sectors (e.g., kWh/sq ft, energy cost per unit)
- **Session 2: Energy Intensity and Performance Ratios**
 - Concepts of energy intensity and its implications
 - Comparing performance ratios across similar entities

Day 4: Theoretical Frameworks for Benchmarking

- **Session 1: Benchmarking Models and Approaches**
 - Overview of different benchmarking models (absolute, relative)
 - Understanding the role of baseline comparisons
- **Session 2: Strategic Benchmarking**
 - Linking benchmarking to strategic energy management
 - Theoretical foundations of continuous improvement in energy performance

Day 5: Role of Benchmarking in Sustainability

- **Session 1: Benchmarking and Sustainability Goals**
 - How benchmarking supports corporate sustainability initiatives
 - Regulatory frameworks and their impact on benchmarking practices
- **Session 2: Future Trends in Energy Efficiency Benchmarking**
 - Emerging theories and methodologies in energy benchmarking
 - The impact of technology and data analytics on future practices

Conclusion

- Recap of theoretical concepts covered in the course
- Discussion on the integration of theory into practical applications
- Q&A session to address specific participant queries

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques

- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Fees:

To be advised as per course locations. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session