BLACKBIRD FOR TRAINING

Energy Management in Industrial Facilities and Buildings

14 – 18 February 2027
Dubai (UAE)



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Introduction

The Energy Management in Industrial Facilities and Buildings course is designed to provide professionals with a comprehensive understanding of energy management and its critical role in today's environmentally conscious and cost-sensitive world. With rising energy costs and heightened environmental concerns, energy efficiency and energy conservation are key to maintaining competitive, safe, and sustainable operations.

Through a blend of theoretical insights and real-world case studies, this course equips participants with the tools and skills needed to assess, monitor, and optimize energy use in industrial and commercial facilities. Participants will also explore how to develop an actionable energy management plan aligned with ISO 50001 standards, enhancing energy performance indicators EPIs and supporting broader sustainability goals.

Course Objectives

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

- Understand the fundamentals of energy systems and their impact on industrial and commercial buildings.
- Conduct effective energy audits to identify areas for energy savings and performance improvements.
- Apply energy efficiency techniques to critical systems such as HVAC, lighting, motors, and more.
- Utilize advanced energy monitoring tools and analyze energy performance indicators EPIs for better decision-making.
- Develop and implement a facility-specific energy management plan aligned with international standards, including ISO 50001.

Course Outlines

Day 1: Fundamentals of Energy Management

- Introduction to energy management principles and sustainability in industrial and commercial facilities.
- Types and sources of energy commonly used.
- Key energy performance indicators EPIs and how to track them.
- Understanding the regulatory and policy framework for energy efficiency.
- Defining the roles and responsibilities of energy managers.



Day 2: Energy Auditing Techniques

- Purpose and various types of energy audits.
- Process and planning for effective energy audits.
- Techniques for data collection and analysis.
- Differences between walk-through and detailed audits.
- Case studies showcasing successful audit findings and actionable recommendations.

Day 3: Energy Efficiency in Building Systems

- Optimizing HVAC systems to enhance energy efficiency.
- Lighting system retrofitting and advanced technologies.
- Building envelope improvements for better thermal performance.
- Smart controls and automation for energy conservation.
- Implementing energy conservation measures ECMs in buildings.

Day 4: Industrial Energy Management Practices

- Improving efficiency in motor and drive systems.
- Managing compressed air systems and steam systems effectively.
- Techniques for waste heat recovery and cogeneration.
- Strategies for load management and demand response.
- Benchmarking through industrial case studies to identify best practices.

Day 5: Monitoring, Reporting, and Action Planning

- Tools and systems for energy monitoring and smart metering.
- Methods for analyzing energy data and generating actionable insights.
- Developing a tailored energy management action plan for your facility.
- Understanding ISO 50001 and aligning with international standards.
- Final workshop: Building a practical, facility-specific energy plan that delivers measurable results.

Why Attend this Course: Wins & Losses!

- Acquire comprehensive knowledge about energy management, energy conservation, and ISO 50001 implementation.
- Learn how to conduct thorough energy audits and identify performance improvement opportunities.
- Gain practical skills for applying energy efficiency measures to HVAC, lighting, and industrial systems.
- Develop a customized energy management plan that supports your organization's sustainability goals and operational excellence.
- Build technical confidence in using energy monitoring tools and analyzing energy performance indicators for informed decision-making.



Conclusion

The Energy Management in Industrial Facilities and Buildings course is an essential opportunity for professionals seeking to lead their organizations towards greater energy efficiency, operational cost savings, and environmental stewardship.

By integrating advanced energy management principles with practical strategies and international standards, participants will be fully equipped to reduce energy consumption, improve operational performance, and contribute to their organization's sustainability journey.

Join this course and become a driving force for energy excellence and responsible resource management in your sector!

