Association of Energy Engineers

Energy Efficiency Practitioner
Training Program

About This Program

The Energy Efficiency Practitioner (EEP) Training Program is designed to provide participants with a comprehensive overview of best practices in energy efficiency; and it can also serve as a preliminary overview for anyone interested in upskilling their knowledge in preparation for the Certified Energy Manager (CEM®), or Business Energy Professional (BEP®) certifications.

What You Will Learn

After the Energy Efficiency Practitioner (EEP) Training Program, you will have a solid understanding of key principles:

– Energy Management: Terminology, Systems, and Equipment for buildings and facilities.

– Organizational Strategies: Auditing, Measurement, Commissioning, Payback and Maintenance.

– Financial Strategies: Identify cost-effective improvements.

– Sustainability: Learn the fundamentals of clean and renewable energy.

At-a-Glance

» This training program prepares you for the Energy Efficiency Practitioner (EEP) exam.

» This course is held over 3 days.

» You earn 1.5 CEU | 15 PDH | 3.0 AEE Credits for completing this program.

Key Takeaways

» **Confidence!** You will participate in activities geared towards applying what you learned using practical examples that demonstrate your understanding of the topics and procedures covered.

» **Knowledge!** You will receive a high-level overview of the Body of Knowledge associated with AEE's certification exam.

» **Application!** You will interact with professionals and subject matter experts who can guide you through discussions on how to apply what you learned.

» **Resources!** You will receive a course workbook and ready reference materials.

Registration

Candidates should visit the website for more information on available training courses, certification application process, exam registration, and associated fees. Visit **www.aeecenter.org/training**

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Who Should Attend

Earning the EEP designation from the Association of Energy Engineers (AEE) provides international credibility among energy management, sustainable, and clean energy communities. The ideal candidate for the Energy Efficiency Practitioner (EEP) Training Program is a professional Manager or Technician who engages in facility and building management, maintenance, and operations. If you work in an office block, high-capacity residential, hospital, school, university, government, or municipal building, becoming a Certified Energy Efficiency Practitioner (EEP) may be right for you!

Course Outline

– HVAC
– Building Utilities and Energy Bills
– Mechanical Systems
– Building Automation Systems
– Lighting
– Building Heat Transfer
– Maintenance
– Economics
– Instrumentation
– Service Water Systems

Our Instructors

Each member of our team of professional instructors are Subject Matter Experts who will deliver content professionally; provide live examples from their experience and focus on specific areas essential to energy efficiency. Their teaching and industry experience allows them to deliver information that is most relevant and of practical value to attendees.

Certification Eligibility

The prerequisites to qualify for the certification process consider the diverse education and experience applicants may have. Each candidate must meet the required criteria at https://www.aeecenter.org/cea

Global Training Partners

For a complete list of AEE training partners visit: Approved AEE Training Partners Worldwide | AEE® (aeecenter.org)

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Full Agenda

What is EEP? (Introduction)

Building Utilities & Energy Cost Structures
- Terminology & Units of Measurement
- Energy vs. Power
- Energy Cost Structures
- Electricity Rate Structures
- Building Electricity Bill Components
- Power Factor
- Rate Structures
- Energy Bill Helpful Analysis

Economic Considerations
- Financial Decision Criteria
- Simple Payback Calculations
- Time Value of Money
- Evaluate Financial Alternatives

Audits & Audit Instrumentation
- ASHRAE Audit Levels I, II, & III
- Benefits of Benchmarking
- Facility Electric Load Factor
- Energy Audit Instrumentation Uses

Lighting
- Basics & Terminology
- Lighting Technology Comparisons
- Lighting Savings Calculations (Cu)
- Lighting Design Overview
- Maintenance & Controls

Heating, Ventilation, & Air Conditioning
- System Controls & Common Practices
- Air Quality
- Heat Removal
- A/C Energy Terminology & Calculations
- Equipment Types & Use Overview
- Testing & Balancing (TAB)
- Systems Maintenance
- Energy & Cost Savings Opportunities

Service Water Systems
- Hot Water Energy Cost Analysis
- Maintenance & Savings Recommendations

Building Envelope
- Heat Transfer
- Energy Loss Reduction (Strategy Analysis)

Building Automation Systems (BAS)
- Control Systems (Terminology & Functions)
- PID Control Strategies
- BAS Functions
- Potential Cost Savings Opportunities

Mechanical Drive Systems (Motors & Drives)
- Types of Motors & Terminology
- Motor Speed (Operational Efficiency)
- Fan / Affinity Laws (Variable Speed Drives)
- Variable Volume Options

System Maintenance
- Maintenance Technology & Practices
- Terminology Overview
- Compressed Air & Steam Leaks
- Boiler Scale Buildup
- Motor Maintenance

Helpful Case Studies

Lighting Reference Guide

ASHRAE Reference Resource of EEMs