

BOC 2001A Outline

Building Scoping for Operational Improvement

Participants will learn how to gather building data and create a building walkthrough plan to find opportunities for improving their building's efficiency and operational performance. Topics include the characteristics of high performance buildings, data gathering tools such as a building operations map and occupant interview guide, four common opportunities for operational improvement, and the steps for completing a building walkthrough. Two days.

TEXTS:

BOC 2001 Student Handbook
BOC Level II Project Workbook
BOC 2001 Student Handbook Appendices

- Glossary
- Energy Star Worksheet
- ACME Building Sample Data

PROJECT ASSIGNMENT: Gather data for Building Scoping - update EUI, Energy Star score & set target; Evaluate seasonal trends; and Occupancy ratio.

CLASS TIME

Lecture: 150 minutes (2.5 hours)
Activities: 165 minutes (2.75 hours)
Breaks: 45 minutes
Test: 60 minutes
Total: 420 minutes (7 hours)

LEARNING OBJECTIVES

- Explain the requirements for successful completion of the Level II training certificate
- Summarize characteristics and benefits of a high performance building
- Describe the five elements of a building scoping plan
- Gather information about your building for a scoping plan
- Calculate an EUI; analyze seasonal trends and occupancy factor for a sample building
- Describe the components of the Level II project assignment

OUTLINE

- 1) Introduction, warm up activity & agenda
- 2) Level II requirements & credential
- 3) Level II project – overview of all 5 assignments
- 4) ACTIVITY 1 – Why are you here?
- 5) High performance buildings
 - a) Attributes
 - b) Case studies
 - c) Standards
 - d) ACTIVITY 2 – High Performance Buildings

- 6) Building scoping definition and process
 - a) Terminology
 - b) Scoping vs. Tune-up
 - c) O&M Review
 - d) Scoping Process Steps
 - e) ACTIVITY 3 – Your experience with building scoping
- 7) Check Your Knowledge Questions 1-2 and Review
- 8) Scoping report action plan – Gather Data
 - a) ACTIVITY 4 – Tune-up Scoping Example
 - b) Utility Accounting: Energy Star Portfolio Manager
 - i) Step 1. Gather basic information
 - ii) ACTIVITY 5 – Energy Star worksheet review
 - iii) Step 2. Gather energy meter information
 - iv) Utility consumption data
 - v) Video – Electric Meter Data
 - vi) ACTIVITY 6 – Your takeaways
- 9) Scoping report action plan - Analyze
 - a) Videos – Interval Data
 - i) Identifying opportunities for energy savings
 - ii) Demand reduction
 - iii) What if I don't have interval data?
 - iv) ACTIVITY 7 – What does the utility consumption data tell us?
 - v) Energy Use Intensity
 - vi) Seasonal Trends
 - vii) Load and Occupancy Factors
 - viii) ACME Building analysis results
- 10) Check Your Knowledge Questions 3-5
- 11) Project Assignment 1
- 12) ACTIVITY 8
- 13) ACTIVITY 9 – 2001A Review
- 14) 2001 Test and evaluation