

COMMERCIAL ENERGY AUDITING

Date:
Monday - Wednesday,
November 2 – 4, 2009

Time:
9:00 am - 4:30 pm – M & T
9:00 am – 12:00 pm - W

Location:
Colorado Rural Electric Assn.
5400 North Washington St.
Denver, Colorado

Registration Deadline:
October 1, 2009

Instructor:
Jim Herritage, CEM

Credit:
2 CEUs

Fee:
\$395 for 10 – 14 students
\$280 for 15 – 19 students
\$220 for 20 – 24 students
\$185 for 25 or more students

Participants will be billed at the completion of the course.

The cost of this course has been discounted thanks to a grant from the Colorado Electric Educational Institute

Cancellation Policy:
Cancellations received on or before the registration deadline will receive full refunds. Cancellations received after the deadline may be billed 25 percent of the registration fee.



Course Objective: This advanced-level 2½-day workshop provides commercial field service personnel with a thorough overview of the many factors that affect commercial energy consumption as well as a foundation for identifying energy-saving investment opportunities. Areas of concentration include energy auditing policies and procedures, electrical calculations and energy savings calculation methodology. The overall objective of this training is to prepare attendees to perform walk-thru energy audits for commercial members.

This is an advanced class that will be taught at a college level. It assumes attendees have completed residential energy auditing training and/or have a basic foundation in energy science. Along with a detailed workbook, each attendee receives the latest version of the *Handbook Of Formulae, Equations & Conversion Factors For The Energy Professional* by Bryan Kerwin, CEM[®]. Attendees should be prepared to complete between two and three hours of homework on nights one and two.

Course Outline

- Introduction
- Objectives of the Commercial Energy Audit
 - a. Essential Elements of the Audit
 - b. Important Do's and Don'ts
- Basic Energy Units and Terms
- Calculating Delivered Cost per MMBTU
- Calculating Heat Transfer
- Energy Savings Calculations
- Per Hour
- Per Season
- Understanding and Measuring Air Flow

continued

- Electrical Terms
- Electrical Calculations
 - a. Motors
 - b. Power Factor
- Lighting
 - a. Terms
 - b. Light Sources
 - c. Ballasts
- Water Heating
- Energy Audit Forms

About the Instructor

Jim Herritage, CEM[®], of Energy Auditors, Inc. has been providing energy training since 1980. His qualifications include being an ICC Certified Mechanical Inspector and holder of an IESNA Certificate of Technical Knowledge.

To Register: Contact Liz Fiddes at the CREA office (303) 455-2700 ext. 103 or e-mail at liz@coloradorea.org. A minimum of ten people must be registered for class to be held. A letter will be faxed to all participants about two weeks prior to the course confirming the participant's registration.

Other: Lunch will be provided on Monday and Tuesday.

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