

**Description of Training Sessions**  
**2009 International Energy Conservation Code (IECC)**  
**2011 -2012**

**1. ICC Certification Training for Building Departments 8 am to 4 pm**

This training will provide building jurisdiction staff with the basic knowledge needed to take the ICC certification exams for residential and commercial plan review and inspections.

**2. Residential Full-day 8 am to 4 pm**

This full-day session will provide attendees with an informative overview of the residential provisions of the IRC (International Residential Code) Chapter 11 and Chapter 4 of the 2009 IECC (International Energy Conservation Code).

The first hour will set the stage for energy codes and energy efficiency in buildings in general through a presentation and discussion on the value of residential energy codes. This section will be supported by a review of the basic science of how a building works, including a good discussion of heat transfer and moisture control and the value of good HVAC design.

The scope and application of the International Residential Code will be presented to help attendees identify the buildings and systems that are covered by the code. Envelope and HVAC system requirements and a brief overview of the ResCheck compliance software will provide clarity to the application of Chapter 11 of the IRC and IECC Chapter 4.

Many incandescent bulbs are being phased out over the next few years. The 2009 IRC and IECC requires that 50% of permanent lamps (lighting or light bulbs) be high efficacy (think CFL). The new Energy Star™ program requires 80% CFL for new construction. A short module will be presented on selection of appropriate high efficacy lighting for the residence.

A presentation on the future of energy codes and above code standards will provide attendees with an opportunity to discuss new approaches to construction.

Residential Topics Include:

- ✓ The Value of Energy Codes
- ✓ Basic Building Science and Code Buildings
- ✓ Code Scope and Application
- ✓ The Building Envelope
- ✓ Mechanical System Requirements
- ✓ Understanding High Efficacy Lighting
- ✓ REScheck Overview
- ✓ The Future of Codes and Standards

### **3. Commercial Full day – 8 am to 4 pm**

This full-day session will provide attendees with an informative overview of the commercial provisions of the 2009 International Energy Conservation Code.

Topics covered include: Scope and application of the code, envelope, lighting and mechanical requirements, alternative methods of compliance and an overview of the compliance software COMCheck.

All sessions are designed to deliver clear information to help the attendee understand code compliance rationale and compliance tools. Discussions on code provisions and application approaches are encouraged and facilitated by the instructor.

Commercial Topics Include:

- ✓ The Value of Energy Codes
- ✓ The Value of Integrated Design in Code Buildings
- ✓ Code Scope and Application
- ✓ Envelope Requirements
- ✓ Mechanical Requirements including Complex Systems for Design Professionals
- ✓ Lighting Requirements including Best Practice Daylighting and Controls
- ✓ COMcheck Overview
- ✓ A look at the 2012 Commercial Code

### **4. ComCheck/ResCheck/Performance Approach 8 am to 3 pm**

This six-hour session will look at compliance alternatives for residential and commercial using either UA analysis or simulated performance. The intent of the session will be to provide the design community and building departments with a working knowledge of ResCheck, Rem Design and ComCheck.

### **5. Industry targeted trainings - Design professional advanced training 8 am to 3 pm**

This training is designed to engage design professionals in meaningful dialogue on energy code requirements.

The Commercial Design Professional one-day training will bring a deeper understanding of specific IECC and best practice commercial building requirements such as complex HVAC systems and lighting and daylighting controls system interaction to the design professional.

#### **i. The Building Envelope**

Presentations and discussion on code envelope requirements, envelope best practice design and the impact on building energy use. Discussion

points will include building orientation, SHGC and shading, assembly types and vestibule design.

**ii. The Major Differences Between ASHRAE 90.1 2007 and the 2009 IECC**

This module is designed to provide design professional attendees a more in depth review of the differences between ASHRAE and IECC. The session will include a comparison of approaches using COMcheck for IECC and ASHRAE documentation.

**iii. Commercial HVAC Requirements for Design Professionals**

This module will provide the design professional the opportunity to gain a deeper understanding of HVAC requirements and applications. A new section on Complex HVAC (503.4) will assist the understanding of code application and system selection from the architect perspective.

**iv. Best Practice Daylighting and Controls Systems**

This module opens a discussion among design professionals on the best value approaches for meeting IECC lighting control and daylighting requirements. The session presents IECC requirements for control systems and provides schematics for best practice application of electric lighting in daylight areas.

**6. Building Science/Exercise – Building Officials / Construction Industry (3 hour Sessions, 8 am and 1pm for each date listed on schedule)**

- Discussion of code requirements
- Building science review
- Blower door use and test results demo
- Duct blaster use and test results demo
- Questions and Answers

Note: No learning units provided for the building science training.