OBJECTIVE: To obtain an understanding of the definitions that are included in IECC Chapter 2 and of how the climate zones are structured within IECC Chapter 3.

REFERENCE: Chapters 2 and 3, 2009 *International Energy Conservation Code*

KEY POINTS:
- How should the definitions in Chapter 2 be used in the context of the IECC?
- What is the building thermal envelope?
- Under the provisions of the IECC, what type of building is considered a commercial building, and what kind of building is considered a residential building?
- When is a space considered to be conditioned? If a space includes space conditioning equipment for freeze protection only, is the space considered conditioned?
- What is a duct system? How can the definition of a duct system be used as a guide to determine where ducts should be sealed?
- What is a sunroom? How does the term *thermal isolation* relate to a sunroom in the residential provisions of the IECC?
- How can IECC Figure 301.1 be used to determine the proposed climate zone?
- How do you determine the climate zone for a proposed project from IECC Table 301.1?
- How are warm humid climates defined?
- What are the interior design temperatures that cannot be exceeded when determining the heating and cooling load calculations?
- Which energy-efficient products are required to be listed and labeled? What are the options for a fenestration product that does not have a label?
- How does labeling apply to blown-in insulation products?
Chapter 4 contains requirements for thermally isolated sunrooms. Section 402.2.11 contains language that mandates minimum insulation levels in the ceiling and walls. The definition of sunroom contained in Chapter 2 defines the types of project to which this provision applies. The definition of thermal isolation provides additional requirements for space conditioning equipment within the sunroom.
Insulation, glazing, air sealing and moisture control requirements will apply to the envelope. Either the residential provisions in Chapter 4 or the commercial provisions in Chapter 5 will dictate what levels of efficiency must be provided, where air sealing must occur and when moisture protection is required.

**Code Text:**  BUILDING THERMAL ENVELOPE. The basement walls, exterior walls, floor, roof, and any other building element that enclose conditioned space. This boundary also includes the boundary between conditioned space and any exempt or unconditioned space.

**Discussion and Commentary:** The term building thermal envelope is used in both Sections 402.1.1 and 502.1 to direct the code user to the portions of the building where the insulation and glazing requirements would apply. The building envelope includes the building assemblies that separate the space that is being heated or cooled from the outdoors or unconditioned space.