



## **Conquering the Energy Code for Architects and Engineers: Residential**

*Course Outline*

### **At the end of this course, participants will:**

- Understand the structure and rationale behind the energy code
- Be able to differentiate the various compliance pathways and understand the requirements for compliance
- Sharpen communication and coordination practices as related to clients, the design team, code officials and the construction team to remove barriers to compliance
- Understand the interdependence of the building envelope, mechanical and lighting systems and their impacts on energy consumption

And finally, inspire design professionals to build above code minimum.

Please note: any building four or more stories in height must comply with the commercial energy code.

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## **PART 1: OVERVIEW**

### **1. Introduction: Energy Code Basics**

- Benefits and Trends
- Basic Parameters

### **2. Energy Codes are a Systems-Based Approach**

- Whole Building Design
- Systems regulated by code:
  - Building Envelope
  - Mechanical and Service Water Heating
  - Electrical Power and Lighting Systems

### **3. Coordination and Communication**

- Team Communication
- Integrated Design Approach

## **PART 2: RESIDENTIAL ENERGY CODE PROVISIONS**

### **1. Scope and Compliance**

- Overview and Definitions
- Selecting Compliance Paths

### **2. Prescriptive Path**

- Building Thermal Envelope
- Systems
- Electric Power and Lighting Systems

- 3. Simulated Performance Alternative**
- 4. Energy Rating Index**
- 5. Existing Buildings**

## **PART 3: DOCUMENTATION AND INSPECTIONS**

- 1. Introduction**
- 2. Compliance**
  - Plan Review & Documentation
  - Supporting Documentation
  - Progress Inspections
- 3. Common Objections**
- 4. Local Laws**
- 5. Resources**