



ENERGY CODE TRAINING for ICC CHAPTERS: TITLE 24 PART 6

TITLE	DESCRIPTION	Estimated Length
A Solid Foundation of the Energy Standards	This course is intended to break the Standards down into simple, easy to digest elements. It covers how all the parts, articles, sections, and chapters of the Energy Standards come into play. The class includes navigation of the Standards, classification of typical projects, and a tour of the index. It provides background information to the Standards and the part they play in the State's larger picture. Includes references for further discovery. For plan checkers, designers and builders, and anyone unfamiliar with the Energy Standards.	1.5 hours
2013 Energy Standards Nonresidential Forms	This course provides an overview of the 2013 Energy Standards compliance documents for nonresidential, hotel/motel, and high-rise residential buildings. All project types will be covered, including newly constructed buildings, additions, and alterations. The compliance documents that will be addressed include Certificates of Compliance, Certificates of Installation, Certificates of Acceptance, and Certificates of Verification. Through this training, enforcement agency staff will learn about the required compliance documents, and which ones to verify at permit and final inspection.	3-4 hours (Half Day)
Residential Alterations and the 2013 Energy Standards	This course provides an overview of the 2013 Energy Standards requirements for residential alterations. The residential alteration projects that will be addressed include water heater replacements/installations, reroofs, and HVAC replacements/installations. This course will identify compliance triggers, how to verify compliance at permit, and which measures/efficiencies to verify at final inspection. The HERS testing and compliance document registration requirements for HVAC alterations will also be discussed.	3-4 hours (Half Day)
Acceptance Testing and the 2013 Energy Standards	This course is an overview of the acceptance testing requirements in the 2013 Energy Standards for nonresidential, hotel/motel, and high-rise residential buildings. We will cover acceptance test requirements for the following topics: HVAC controls and systems, lighting controls and systems, refrigerated warehouse systems, parking garage exhaust, compressed air system controls, and site-built fenestration. This course will also identify which compliance documents are required at permit and final inspection, and the new Acceptance Test Technician Certification Provider (ATTCP) requirements will be discussed.	2-3 hours (Half Day)



ENERGY CODE TRAINING for ICC CHAPTERS: TITLE 24 PART 6

What's New for the 2016 Energy Standards	This course will provide an overview of the new requirements in the 2016 Energy Standards for both residential and nonresidential buildings. All project types will be covered, including newly constructed buildings, additions, and alterations. The new requirements for residential buildings that will be addressed include high performance attics and walls; instantaneous water heaters; high efficacy lighting; and much more. The new requirements for nonresidential buildings that will be addressed include elevators and escalators; window and door HVAC lockout sensors; direct digital controls (DDC) and much more. Through this training enforcement agency staff will be provided with the tools and knowledge necessary to enforce the 2016 Energy Standards.	6-7 hours (Full Day)
	LIGHTING	
2013 Energy Standards - Nonresidential Indoor Lighting	This course provides an overview of the nonresidential indoor lighting requirements in the 2013 Energy Standards. All nonresidential project types are covered - newly constructed buildings, additions, and alterations. The course will address indoor lighting controls, acceptance testing, lighting power allowance, forms, and much more. Plans examiners and building inspectors will receive the tools and knowledge to enforce the 2013 Energy Standards.	2 hours
2013 Energy Standards - Nonresidential Outdoor Lighting	This course provides an overview of the nonresidential outdoor lighting requirements in the 2013 Energy Standards. All project types are covered - newly constructed buildings, additions, and alterations. The course will address outdoor lighting zones, luminaire cutoff, outdoor lighting controls, acceptance testing, lighting power allowance, forms, and much more. Through this training, plans examiners and building inspectors will receive the tools and knowledge necessary to enforce the 2016 Energy Standards.	2 hours
2013 Energy Standards – Residential Lighting Overview	This course provides an overview of the residential lighting requirements in the 2013 Energy Standards. All project types are covered - new construction, additions, and alterations. The course addresses high and low efficacy lighting classifications, indoor and outdoor lighting controls, forms, and much more. Through this training, plans examiners and building inspectors will receive the tools and knowledge necessary to enforce the 2016 Energy Standards.	2 hours



ENERGY CODE TRAINING for ICC CHAPTERS: TITLE 24 PART 6

2016 Residential Lighting Changes	This course is a high-level overview of the changes to residential lighting between the 2013 and 2016 Energy Standards. All project types are covered, including newly constructed buildings, additions, and alterations. The course will address changes to the high and low efficacy classifications, new control requirements, and much more.	1 hour
	ENVELOPE	
2013 Energy Standards - Envelope Overview	Focusing on changes since the 2008 Standards, this is an overview of the building envelope - opaque roof, wall, & floor systems, fenestration, insulation & other components. Major component systems of residential and nonresidential buildings are addressed. The class presumes the audience has a working knowledge of past editions of the Energy Standards. The class covers the background and future of the Standards, as well as reference resources for further training. Primarily for plan checkers, as well as designers and builders.	1.5 hours
2013 Energy Standards - Residential Envelope	The envelope of low-rise residential buildings is addressed in depth. Topics include opaque roof, wall, & floor systems, fenestration, insulation and other components. New-construction, as well as additions and alterations are covered. Focus is on the mandatory and prescriptive requirements, as well as the performance path to compliance with those requirements. Fundamentals are addressed in addition to specific incidentals and examples. Mention is made of requirements that go beyond residential, applying to all buildings, if they apply to residential envelope. Primarily for building inspectors and builders, a modified version is available for plan checkers and designers.	4.5 hours
Cool Roofs	An in-depth look at the residential and nonresidential application of this unique "envelope" topic. Newly constructed, as well as additions and alterations are covered. Comparisons made between the 2008 and 2013 editions. Prior knowledge of the general Standards is helpful, as specific plan check & inspection actions are discussed. For plan checkers and inspectors, as well as designers and builders.	2 hours
2013 Solar Ready Requirements	This overview course covers the solar-ready building requirements in §110.10 for residential, hotel/motel, multi-family, and commercial projects – new construction and large additions. "Solar-ready" was new in the 2013 Energy Standards the course contains helpful information for plan checkers, and inspectors. The course also provides an overview of the changes in the 2016 code.	2 hours



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	SPACE CONDITIONING and WATER HEATING	
2013 Energy Standards – Low Rise Residential Buildings HVAC	This presentation provides an overview of the 2013 Energy Standards requirements for HVAC systems in low-rise residential buildings and elaborates on select forms used in the compliance process. HVAC system requirements are covered in the order they appear in the 2013 Energy Standards: mandatory, prescriptive & performance compliance paths, and additions & alterations. The requirements for both newly constructed and existing low-rise residential buildings will help attendees fulfill compliance requirements and increase understanding of the compliance process when working on HVAC systems.	4 hours (half day)
2013 Water Heating Requirements	This overview presentation on the 2013 water heating requirements addresses all occupancy types and includes information from the Title 20 appliance regulations. It addresses service water heating systems, equipment, and pipe insulation. An optional overview of the changes in the 2016 Energy Standards can be included in this course.	2.5 hours