

BUILDING ENERGY CODES CONFERENCE 2016

CONFERENCE AGENDA

MARCH 21-24, 2016



Pre-Conference Monday, March 21

7:30 AM – 8:00 AM	Registration	
8:00 AM – 9:00 AM	Energy Codes 101	
9:00 AM – 12:00 PM	COMcheck Basics	
12:00 PM – 1:00 PM	Lunch (on your own)	On-Site Building Tour (tentative)
1:00 PM – 3:00 PM	REScheck Basics	
3:00 PM – 3:15 PM	Break	
3:15 PM – 4:30 PM	What's New in the Codes?	
5:30 PM – 6:30 PM	Welcoming Reception	

Workshop: Energy Codes 101. Get a basic introduction to the varied and complex issues associated with building energy codes. **COMcheck Basics.** Come learn the basics of using/reviewing COMcheck, including the latest and greatest features. **REScheck Basics.** Come learn the basics of using/reviewing REScheck, including the latest and greatest features. **What's New in the Code?** Hear about the latest requirements and latest news of IECC and 90.1.

On-Site Building Tour (*Details to come*)

Welcoming Reception

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Day 1 Tuesday, March 22

7:30 AM – 8:30 AM	Registration and Continental Breakfast		
8:30 AM – 9:00 AM	Welcome and Opening Remarks		
9:00 AM – 9:45 AM	Keynote Speaker – John Tooley		
9:45 AM – 10:15 AM	Break		
10:15 AM – 11:45 AM	Ventilation and the Residential Energy Code	What Resources Are Available to Meet the Code?	Innovative Insulation Strategies
11:45 AM – 1:00 PM	Networking Lunch and Field Studies Presentation		
1:00 PM – 1:30 PM	Break		
1:30 PM – 3:00 PM	On-Site Generation and Residential Energy Codes	The Devil in the Details of Sustainable Homes	
3:00 PM – 3:30 PM	Break		
3:30 PM – 5:00 PM	Multifamily	Compliance – Taking it from the Book to the Building	

Ventilation and the Residential Energy Code: As energy codes (and general building practice) continue to reduce air leakage in buildings, proper ventilation takes on a more prominent role. This panel session will review the latest code requirements with respect to ventilation and the energy code; discuss the various ways the requirements are met in the field; and go over research that discusses how well ventilation systems deliver fresh air.

What Resources Are Available to Meet the Code? What does it take to meet the residential energy code requirements? What construction methods and materials work best to meet either the prescriptive or performance path? This panel session will break down the "what" and the "how" of effectively meeting the residential energy code. This panel will provide information and tips for builders and code officials from experienced industry professionals as well as documented real world scenarios.

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Innovative Insulation Strategies. Insulation typically takes the form of either batts, cellulose or spray foam in wall cavities, or to a lesser extent rigid insulation on the exterior of walls. There are, however, other types of insulation that are entering the market. This session will highlight both non-standard insulation strategies as well as modifications to existing technologies.

On-site Generation and Residential Energy Codes. A discussion about what is in the 2015 IECC regarding on-site generation and the relationship with ERI. How solar is integrated by builders to add value to homebuyers, with consideration of the utility benefits. Plus a look forward at how it may be included or added in the 2018 IECC code development and addressing some of the changes to enforcement practices. Leaving time for audience discussion and input.

The Devil in the Details of Sustainable Homes

This course will set the stage for an audience discussion about the challenges and opportunities in single-family residential projects by reviewing current market conditions, existing best practices and a collection of issues that the construction industry must address. We'll conclude with a review of opportunities for leadership from industry leadership and use the remaining time for comments and discussion from the audience.

Multifamily. Multifamily buildings constitute between 40 and 50% of new residential construction across the United States, depending on the state. Research suggests continued high construction levels. This session will highlight building code and construction trends that impact the multifamily market, and the challenges for the industry as codes focus more directly on energy savings measures specific to multifamily construction. This session will provide the audience with a good understanding of the energy saving opportunities in multifamily.

Compliance - Taking it From the Book to the Building. Adopting a new code is only the first step in changing design and construction practices. Ensuring that new requirements actually get incorporated into buildings takes a concerted effort to educate building officials, designers and contractors about the code and following up with technical support and good processes to help everyone involved understand the requirements and documentation that will be expected. This session will feature examples of best practices in supporting compliance with new codes.

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Day 2 Wednesday, March 23

8:00 AM – 9:00 AM	Registration and Continental Breakfast		
9:00 AM – 10:00 AM	Keynote Speaker – C.R. Herro		
10:00 AM – 10:30 AM	Break		
10:30 AM – 12:00 PM	2015 IECC and the ERI	Existing Buildings	
12:00 PM – 1:30 PM	Networking Lunch and Jeffrey A. Johnson Award		
1:30 PM – 3:00 PM	Jolt Session		
3:00 PM – 3:30 PM	Break		
3:30 PM – 5:00 PM	2018 IECC: Proposals and Themes	How Much Energy Do Codes Really Save?	Energy Code Adoption Trends and Strategies

2015 IECC and the ERI. The Energy Rating Index (ERI) is new to the 2015 IECC. As more jurisdictions and states adopt the 2015 IECC, many wonder how to best implement this alternative pathway. Luckily, this session will help you understand what to consider when adopting, enforcing and implementing the ERI. The panelists will share best practices, successes and challenges.

Existing Buildings. Existing building energy use is the leading consumer of energy; 40 percent of U.S. electricity. Reduction retrofits are crucial; and represent an investor opportunity exceeding \$280 billion that could account for over \$1 trillion in energy savings within a decade. The 2015 IEBC and ASHRAE Standard 100-2015, are codes for existing buildings; the 2015 IECC and IGCC include existing buildings chapters. What role do codes play in building retrofit and what are the challenges and opportunities?

2018 IECC: Proposals and Themes. Proposals for the 2018 International Energy Conservation Code (IECC) were due in January and have now been published by the International Codes Council (ICC). In every code development cycle, certain themes emerge from the proposals that were submitted. This session will look at the broad themes as well as discuss individual proposals with the potential to significantly change the energy code.

How Much Energy Do Codes Really Save? Energy code savings are usually estimated prospectively based on simulations or engineering analyses. But questions have been raised about how much energy codes actually save in real buildings. Reliable savings estimates are becoming more important as utilities

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and planners try to account for the impact of codes on loads, and code adoption and compliance programs gain recognition as ways to reduce energy use and greenhouse gases. The three presentations in this session present results from recent studies using energy consumption data in different analytic frameworks to determine actual energy use impacts.

Energy Code Adoption Trends and Strategies. The policy landscape for building codes is one of the most complex and diverse in the country. This session will break down the different adoption schemes across the country, the unique challenges faced in each, and strategies and resources to address them.

Day 3 Thursday, March 24

8:00 AM – 9:00 AM	Registration and Continental Breakfast		
9:00 AM – 10:15 AM	National Appliance Standards and Preemption	Energy Codes and Federal Policy	Code-Required Commissioning
10:15 AM – 10:30 AM	Break		
10:30 AM – 11:45 AM	Commercial Compliance	Best Practices for Code Enforcement	
11:45 AM – 12:30 PM	Box Lunch		

National Appliance Standards and Preemption. The Department of Energy is required to consider and/or set standards of efficiency for most of the equipment and appliances that we use in residential and commercial buildings. Once a standard is enacted, they set the minimum level of efficiency for manufacturing and the maximum level that can be required by code. Thus, these federal standards preempt the ability of a state or local body to set or require higher appliance efficiency levels. However, for a certain subset of commercial equipment, ASHRAE 90.1 may adopt standards that are higher than Federal. States may adopt these ASHRAE provisions in their building codes without violating preemption. This session presents the standards process, savings potential, and strategies for working with preemption.

Energy Codes and Federal Policy. Federal policies and programs beyond existing DOE building code office activities can influence the development and implementation of codes. This session will include a view from Capitol Hill with an energy codes lens, discussion of codes implementation for federally-supported construction, and the quite different perspective of air quality regulation and the potential role that building energy codes can play as a state compliance option under EPA's Clean Power Plan regulation.

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Code-Required Commissioning. Commissioning (Cx) of building systems is becoming a fundamental component of the design, construction and code compliance for all new buildings, not just those considered “high-performance.” Panelists with expertise in providing and enforcing Cx services, will provide a clear framework for why Cx is so important to a building owner, what Cx providers actually do, and the best practices jurisdictions are using to enforce Cx code requirements.

Commercial Compliance. Are commercial energy codes actually delivering the savings we assume based on the written code? Commercial buildings vary widely in size, function, complexity and systems. Developing a methodology that accurately measures what is occurring in the field is difficult and may be too expensive for most states. This session will present the state of the art in this area as well as articulating the many remaining hurdles that need to be overcome to create a usable, practical methodology.

Best Practices for Enforcement. Local enforcement plays a critical role in making energy codes work. Attendees at this session will hear from local code officials about the best practices being used in their jurisdictions to enforce the energy code, educate industry stakeholders and evaluate compliance. Presentations will include strategies that can be implemented by building departments in small, medium and large jurisdictions, followed by an interactive Q & A discussion.