

# IECC Code Development Process, Policy Approaches and Technical Issues



**BILL FAY**

**CODE COALITION DIRECTOR, ENERGY EFFICIENT  
CODES COALITION**

**HARRY MISURIELLO**

**VISITING FELLOW, BUILDINGS PROGRAM, AMERICAN  
COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY  
(ACEEE)**

# Welcome to the 2012 IECC Development Committee Hearings in Baltimore!



This hearing is one of the major steps in developing the 2012 version of the IECC (and IRC Energy)

- June 1, 2009 – Code changes submitted
- August 24, 2009 – Monograph published on Web
- **October 26-31, 2009 – Development Committee Hearings in Baltimore**
- December 16, 2009 – Results of Hearings Published
- July 1, 2010 – Public Comments due (Group B)
- August 26, 2010 – Final Action Agenda published on Web (Group B)
- **October 28 – November 1, 2010 – Final Action Hearings in Charlotte, NC (Group B)**
- April 2011 – 2012 Version of I-Codes and IECC published

See: <http://www.iccsafe.org/cs/codes/Pages/cycle.aspx>

# Why is This Code Cycle Important?



- This is the last chance to move the IECC to a 30% improvement level before possible Federal energy code targets kick in
- The 2012 code cycle is a special “transitional” cycle
- Next IECC code cycle starts in January 2013 for 2015 I-Codes to be published in April 2014---  
**More than 4 years from now!**
- DOE, the EECC and efficiency advocates believe that the nation cannot wait any longer for a “30%” energy code

# The Stakes of Success Are High!



## Cumulative Savings (2010-2030) if All States Fully Implement “The 30% 2012 Solution”

- Estimated cumulative energy savings of 16 Quads (16.4 quadrillion Btus)\*
- Savings equal to the annual energy output of 354 base load power plants\*\*\*
- 954 million metric tons\* of CO<sub>2</sub> prevented
- Homeowners would save \$135 billion in wasted energy\*\*

\* *Building Codes Assistance Project (BCAP).*

\*\* *Most recent U.S Energy Information Agency estimated “per Btu” expenditures in the residential sector (2003).*

\*\*\* *Edison Electric Institute (EEI).*

# It's Clear We've Changed the Code Debate



- **2008 EECC/NASEO Campaign:**
  - 64% of ICC Government Members Vote for “The 30% Solution”
  - Elevated National Interest: Engaged Mayors, Governors
  - Added a New Venue: Congress/Administration Interest
  - Heightened National Energy/Environmental Policy Importance
- **This year: 6 *other* comprehensive proposals (including NAHB's); each claims 30% boost in 2006 IECC's efficiency!**
- **Huge Volume: EECC has published recommendations on:**
  - 144 Residential IECC/IRC Energy Proposals
  - 87 Commercial IECC Proposals
  - 7 Proposals IRC Energy
  - 13 Administrative ICC Proposals

# Our Goals for 2012 Model Energy Code



“The 30% Solution 2012” is focused on:

- **Efficiency.** “The 30% Solution 2012” achieves more efficiency than any other set of proposals before ICC, putting the 2012 IECC well on the path to achieve Congress’ looming 50% energy efficiency target.
- **Simplicity . . . One model code clearly written to facilitate energy code administration and enforcement.**
- **Lifetime and Ease of Replacement . . . Recognizing improvements that last for generations.** *All efficiency isn’t created equal. For example, there’s often only one shot to get envelope improvements right, but their energy savings last for decades.*
- **A Complete Solution. Integrating all elements of energy efficiency.** *EECC believes that energy efficiency should NOT be approached in silos..*

# “The 30% Solution 2012” & “30Plus”/EC25



- Dynamic set of improvements that could achieve 30% boost over the 2009 IECC and 40% boost over the 2006 IECC. It includes:
  - **Three Major Proposals:**
    - ✦ **RE-1 & RE-2 make IECC ICC’s *only* model energy code**
    - ✦ **EC-25/“30 Plus,” Comprehensive proposal to boost efficiency of 2009 IECC by 20-25%; 2006 IECC by >30%.**
  - **32 Individual Proposals, many – but not all – of which, are included in “30Plus.”**
- Taken together, “The 30% Solution 2012” addresses virtually every part of new home energy efficiency subject to code requirements – space heating and cooling, thermal envelope, duct sealing, air sealing, hot water heating and lighting.

# What is in the “30Plus” Package?



EECC’s Comprehensive “30Plus”/EC-25 Package from emphasizes:

- ✓ **More Efficient Windows & Doors**
- ✓ **More Efficient Lighting (IECC scope expansion)**
- ✓ **Increased Insulation**
  - **For Walls**
  - **For Foundations and Basements:**
  - **For Floors**
  - **For Ceilings (with and without attics)**
  - **For Circulating Hot Water Systems**
- ✓ **Better Duct Testing/Less Air Leakage**

And there are 30 more individual EECC proposals that enhance the “30Plus” Package for more savings

# Energy Savings Comparisons between Major Comprehensive Proposals

Code Proposal	Annual Energy Cost Savings		Peak kW	AC Sizing
	National Average	Range by Climate Zone		
2009 IECC	12.9%	10.8-15.1%	7.1%	12.2%
“30Plus”/EC 25 (EECC)	30.3%	25.4-33.5%	18.6%	23.4%
EC13 (DOE)	25.4%	20-5-28.4%	12.3%	22.0%
EC16 (NAHB)	21.4%	16.0-25.3%	10.1%	19.2%

# Yesterday, Today & Tomorrow



- **IRC Energy Committee defeated every major energy efficiency proposal except NAHB's:**
  - Three steps backward, four forward
  - Reverses gains in 2009 IECC, after states have adopted
  - Too complex – four paths instead of one will create training, enforcement nightmare,
  - Trade offs silo improvements instead of complete building efficiency
  - Tougher HVAC standards from DOE will invalidate proposal
- **IRC Energy Committee overturned by the assembly on a single model energy code**
- **IECC Committee tomorrow even more critical**

# Next Steps at the Baltimore Hearings



- Review the EECC recommended positions on each of the proposed changes to the IECC
- Come to the EECC witness preparation meeting tonight
- Make your voice heard by testifying for or against the individual code proposals on Wednesday through Saturday
- Participate in the debate and help set this part of national energy policy

## Next Steps with NASEO:

### Engage with the ICC to make national energy policy!

- State Energy Offices can join the ICC as voting members and contribute to making national energy policy!
- Note the ICC membership keywords:
  - *“Employees or officials of the Governmental Member or departments of the Governmental Member”*
  - *“Actively engaged either full or part time”*
  - *“In the administration, formulation or enforcement of laws, ordinances, rules or regulations relating to the public health, safety and welfare”*
- Each state can send up to 12 voting representatives to the ICC final action hearings