



ICC Publishes IECC 2012: New Energy Efficiency Codes for Commercial Buildings and Homes to Achieve 30% Increase in Energy Savings

"Continuous Insulation" Key Component to Whole Building Approach

Bethesda, MD, August 3, 2011 – The International Codes Council today released the 2012 International Energy Conservation Code (IECC) that will achieve a 30 percent increase in energy savings in residential and commercial buildings as compared to the 2006 code. This represents the single largest efficiency increase in the history of the model energy code.

"The next step is to insure that these codes are adopted, implemented and enforced across the country," said Jared Blum, President of PIMA. "This is yet another step forward in insuring that we as a nation reduce our energy consumption, which in turn will help to stabilize or even decrease energy costs to businesses and homeowners."

In both residential and commercial construction continuous insulation (ci) – wrapping the exterior wall in a continuous layer of rigid foam insulation around the studs and the cavity - offers the only way to block thermal bridging. It also results in walls with a higher R-value than using batt insulation alone. The benefits of continuous insulation are a reduction in heat loss, prevention of mold and mildew accumulation in the wall and better protection against water intrusion.

The resulting residential changes include the following:

- A mandatory air infiltration test in all homes to ensure building envelope efficiency
- A requirement that ducts be tested to a tighter duct leakage standard
- An increase in stringency for insulation and glazing efficiency requirements
- A set of options to solve the problem of "stranding" –and therefore wasting–heated water: keeping pipes "short and skinny," or insulating them to avoid waste
- The elimination of a former duplication of model energy codes between the IECC and the International Residential Code, streamlining the process into a singular, efficient path to residential compliance

The specific increases to residential wall R-values are as follows:

CLIMATE ZONE	ASHRAE 90.1 -2007/IECC 2009	IECC 2012
1	13	13 + 3.8 ci or 20
2	13	13 + 3.8 ci or 20
3	13	13 + 3.8 ci or 20
4	13	13 + 3.8 ci or 20
5	13 + 3.8 ci	13 + 7.5 ci
6	13 + 7.5 ci	13 + 7.5 ci
7	13 + 7.5 ci	13 + 7.5 ci
8	13 + 15.6 ci	13 + 15.6 ci
Status	"Current Code"	"Next Code"

The resulting commercial changes include:

- Comprehensive revisions to IECC's Chapter 5, including the compliance option to choose between high performance lighting, high performance HVAC equipment, or onsite renewable power generation
- More efficient air leakage requirements by requiring continuous air barriers for the building envelope
- A commissioning requirement for HVAC systems
- Increased efficiency of the opaque thermal envelope provisions
- Increased fenestration efficiency
- Mandated automatic daylighting controls for buildings with a window-to-wall ratio over 30%
- A requirement for skylights and daylighting controls for spaces over 10,000 ft² in certain building types
- Added efficiency requirements for cooling towers
- Increased minimum efficiency requirements for certain HVAC equipment
- Increased HVAC piping insulation provisions