



## ICC Residential Code Change Update

DOE's recently proposed change to the 2003 IECC (International Energy Conservation Code) was approved "as modified" with several floor amendments. Overall, the proposed code change eliminates the confusion and redundancy that is prevalent in the existing residential chapters, and replaces them with a shorter, more usable code that includes both a prescriptive approach and a systems performance approach. The proposed change also allows the use of compliance tools like the US DOE REScheck software via the Alternative Methods and Materials and Materials provision located in Chapter 1. The end result is that the first six chapters of the IECC will be deleted and replaced by four new chapters.

Six floor amendments, which were submitted during testimony and approved by the IECC committee, altered DOE's original proposal. These floor amendments resulted in significant differences between the IECC and the energy Chapter of the IRC (International Residential Code). DOE will work with all proponents and opponents of the various floor amendments to seek compromises that will bring the IRC and IECC into closer agreement.

The most significant changes to the original proposal were:

- Glazing requirements (U-factors) were made slightly more stringent in southern climates (zones 1-3).
- Frame wall insulation requirements were made more stringent in northern climates (zones 4-6).
- Mass wall requirements were made less stringent in climate zones 1-4 (except Marine) bringing the mass wall requirements into closer agreement with the current IECC.

- A trade-off limit was imposed on glazing in some climate zones (the U-factor and/or SHGC cannot be raised above the limit, even when doing trade-offs via the systems performance path or by averaging  $U_o$  and/or SHGC).
- A proposed reduced table of default U-factors and SHGCs for fenestration was expanded, essentially restoring the tables that are in the current IECC.
- The exception that allowed cathedral ceilings (i.e., those not under attic space) to have a limited R-value to accommodate standard framing sizes was removed.
- The DOE proposed table of prescriptive trade-off options was deleted.
- A requirement was added to the performance path that the standard and proposed houses have identical glazing area (equal to the actual proposed area), prohibiting trade-off for glazing area.
- The exception that exempted hurricane-rated glazing from the U-factor requirements in jurisdictions that require such ratings was deleted.

The commercial provisions of Chapter 8 of the IECC (Design by Acceptable Practice) were replaced with a new insulation and glazing table mapped to the RICC's new climate zones. This change will cover buildings with window-wall ratios up to 40% and will result in an overall tightening of commercial envelopes.

To view all of the energy code change proposals that were accepted by the IECC and IRC, go to [http://www.energycodes.gov/implement/doe\\_2004\\_proposals.stm](http://www.energycodes.gov/implement/doe_2004_proposals.stm).

### ICC Code Development Schedule

Code Development Cycle	2003-2004 18-Month Cycle	2004-2005 18-Month Cycle
Deadline for receipt of public comments	January 14, 2004	June 17, 2005
Publication date of public comments "Final Action" agenda	April 1, 2004	August 24, 2005
Public hearings for "Final Action Consideration"	May 17-20, 2004 Sheraton Hotel; Overland Park, KS	September 25-29, 2005 Cobo Center; Detroit, MI
Annual Meeting dates	September 5-14, 2003 Opryland Hotel; Nashville, TN	September 26-29, 2004 Salt Palace; Salt Lake City, UT
Resulting publication	2004 Supplement	2006 Editions

# BIG Lighting Changes are on the Way!

New, more stringent (read “more energy efficient”) commercial lighting requirements are coming to both the IECC and ASHRAE/IESNA Standard 90.1. The new lighting requirements are the result of 3 years of work within ASHRAE’s SSPC 90.1 Lighting Subcommittee and stem from a combination of new IESNA recommended illumination levels (9th Edition of IESNA Handbook), recent research on light loss factors, improvements in lighting equipment efficiency, and consideration of modern efficient lighting design. Using the same lighted-space-modeling basis as the current ASHRAE Standard 90.1 (see <http://12.109.133.232/cgi-bin/lpd/lpdhome.pl>), ASHRAE and IESNA have developed new lighting power density limits that can reduce building lighting energy by up to 25% on a national basis. These reductions reflect improvements the lighting industry has made in equipment and application and the improved understanding within the design community of actual lighting needs. How much energy savings is actually realized from the adoption and enforcement of these new requirements will depend on many factors.

For more information on building or space types of interest to you, see approved addendum g to ANSI/ASHRAE/IESNA Standard 90.1-2001 at [www.ashrae.org](http://www.ashrae.org) (go to Standards Addenda shortcut). This and all other addenda to Standard 90.1-2001 will be published as part of ANSI/ASHRAE/IESNA Standard 90.1-2004. These values are also included in the printed version of 2003 IECC (available from ICC at [www.iccsafe.org](http://www.iccsafe.org)).

**Lighting Power Density Limits  
Existing vs. New**

