

EECC

Energy Efficient Codes Coalition



1850 M Street, NW • Suite 600 • Washington, DC 20036 • Phone: (202) 857-0666 • www.energyefficientcodes.org

The 15 *worst* residential (RE) proposals for energy efficiency at ICC's Atlantic City Public Comment Hearing

Unfortunately, with few pro-efficiency proposals, the Atlantic City code hearings are shaping up as a battle to prevent backsliding from the historic 30% efficiency gains of the 2012 IECC. Following are the 15 (or so) worst residential energy code proposals that will be resolved in Atlantic City. To see a comprehensive list of the problematic – as well as pro-efficiency – proposals consult EECC's Atlantic City voting guide. Leading the hit parade of negative proposals is the Granddaddy of all backsliders – RE166 – which would reinstate a loophole allowing construction that would be even less efficient than the 2009 IECC. We strongly recommend **VOTING FOR DISAPPROVAL ONLY** on all of these proposals (in many cases, a vote against the standing motion for AS or AM is necessary, before voting for Disapproval).

#1 RE166: Restoring the Equipment Trade-Off Loophole from 2006 IECC would reverse three Final Action Hearing votes by code officials: the first eliminated this enormous loophole for the 2009 IECC, and then most of code officials at the 2012 hearings reaffirmed that position by rejecting builder efforts to reinstate it in the 2012 IECC & IRC. The only IECC committee to recommend the trade-off in the past three code cycles voted 6-5, with 4 NAHB representatives voting for the proposal authored by NAHB. Reinstating equipment trade-offs would not only cost energy efficiency, but result in a race toward compliance by performance computer simulations and away from prescriptive, placing a heavy burden on code officials to ensure the accuracy of performance path software inputs and outputs.

#2 RE166: Restoring the Equipment Trade-Off Loophole from 2006 IECC would go against current building codes in the 2/3 of the states that have adopted the 2009 or 2012 IECC. These states followed the lead of code officials and rejected builder efforts to include in current codes the equipment trade-off loophole that was in the 2006 IECC. Significantly, because the performance path will be weaker than the prescriptive path, adoption of RE166 will abandon the concept that both I-Code paths achieve equivalent levels of efficiency, creating a “compliance path of *least* efficiency.”

#3 RE166: Restoring the Equipment Trade-Off Loophole from 2006 IECC would be the single biggest step backward in energy efficiency ever adopted into the model energy code. In fact, it would produce the first IECC in history that is far weaker than its predecessor IECC, allowing builders using the loophole to build homes that can use up to 20%+ more energy than a home meeting the 2012 IECC. In other words, the trade-off loophole could be used to wipe out most of the efficiency gains of the 2012 IECC for many homes. And, letting builders trade equipment (which lasts 10-20 years) against envelope efficiency (which can last 70, 80, even 100 years) will result in less efficient envelopes for the life of the home.

#4 RE166: Restoring the Equipment Trade-Off Loophole from 2006 IECC is a solution in search of a problem: hundreds of thousands of homes have been built – without evidence of any problem – in all of the states that haven't allowed this loophole since their adoption of the 2009 and/or 2012 IECC.

#5 RE166: Restoring the Equipment Trade-Off Loophole from 2006 IECC will thrust the IECC back into the uncertainty of NAECA, the federal law that governs equipment efficiency. When code officials wisely eliminated this loophole, they focused the IECC on efficiency measures (unlike equipment) where codes can address and set reasonable, energy efficient minimum baselines for such measures. **NOTE: RE 10, 162, 165, 169, 172, 179 are variations on equipment and related trade-offs and should be disapproved for many of the same reasons as RE166; many of these proposals have additional flaws as well.**

- #6 RE-26, 28, 32, 33, 34, 37, 38, 40: Eight backsliding proposals that weaken the stringency of insulation in various parts of the opaque envelope.** These proposals all unjustifiably reduce the efficiency of requirements established by the 2012 IECC and constitute backsliding.
- #7 RE-44, 45, 46, 47, 48 & 50: Six backsliding proposals that weaken the stringency of U-Factor requirements.** Proposals RE44, RE45, RE46, RE47, RE48 and RE50 all suffer from the same fatal flaw – they treat the U-factor table (R402.1.3) as a direct product of the prescriptive table (R402.1.1) and use this as a justification to adopt less stringent values than in the 2012 IECC based on a single method of construction. The result is an unnecessary weakening of the stringency of the IECC and backsliding from the 2012 IECC.
- #8 RE-19, 20 & 22: Three proposals that establish unreasonable new prescriptive requirements for fenestration.** RE19 would establish an SHGC trade-off and RE22 would establish a minimum SHGC, both concepts have been rejected numerous times over many code cycles. Both are particularly inappropriate because of the failure to account for the orientation of the windows; higher SHGC is not beneficial for all orientations and house configurations. RE19 and 20 would require triple glazed windows in northern climates, which is too aggressive at this time.
- #9 RE 65: RE65 establishes a projection factor trade-off for fenestration, weakening the stringency of the prescriptive fenestration requirements.** This proposal will likely increase energy use in most cases, while increasing complexity of the code and unnecessarily undercutting ease of compliance and enforcement. Similar proposals have been rejected by the ICC for many years.
- #10 RE 95: RE95 removes the current mandatory requirements for window U-factor and SHGC.** This proposal has been rejected by the ICC for numerous code cycles and constitutes backsliding. Efficient windows are critical for energy efficiency, comfort and to reduce peak demand and HVAC sizing. The current mandatory requirements ensure some degree of protection that these critical requirements will not be traded away.
- #11 RE 90: RE90 weakens current air leakage requirements for the home.** This proposal will allow more leaky and inefficient homes and constitutes backsliding.
- #12 RE11: Adding two unnecessary compliance options that may be weaker than the 2012 IECC will add confusion and create potential compliance loopholes and enforcement problems.**
- #13 RE-116, 119 and 120: These proposals weaken the current duct leakage requirements for the home.** RE116 allows testing duct leakage outdoors instead of total leakage at rough-in or post-construction and will result in more total duct leakage than currently permitted, unless the ducts do not leak at all into the occupied conditioned space (a highly unlikely situation unless the ducts are not in conditioned space at all). RE119 and RE120 allow building cavities to be used as ducts or plenums and there is not an effective way to test these cavities.
- #14 RE-164, 170 & 181: Modifying the glazing percentage from the standard reference design will result in substantial backsliding by removing an important backstop that has protected overall building efficiency under the performance compliance path since the 2006 edition of the IECC.** For homes with high glazing area, adoption of RE164 would essentially allow designers to take advantage of both the extreme flexibility of the performance path *and* an unlimited amount of glazing area, while RE170 and RE181 will create an enormous loophole where homes that already have low glazing area anyway are allowed substantial reductions in the efficiency of the rest of home.
- #15 CE66, Part II: Creating a new tropical climate zone with alternative compliance options** that would affect *all* tropical locations – whether the building is located in a hot, cold, or temperate micro-climates – should require far greater justification than “informal conversations with those who live in tropical regions.” In addition, the new climate zone and compliance path are weaker than the current code in Hawaii, one of the jurisdictions CE66 would cover. Part I was recommended for disapproval by the commercial energy committee.