From: Graham Irwin
Sent: Saturday, March 14, 2009 10:34 PM
Subject: Criteria Revision – Public

Mr. Karney & Ms. Zachery:

I read with interest the "Energy Star for Windows, Doors and Skylights Revised Draft Criteria and Report." I applaud the effort and the new administration's efforts to promote and encourage and promote energy efficiency in buildings. As a long time green/sustainable building consultant and a more recent Certified Passive House Consultant, I can certainly attest to the crucial role that efficient windows play in a building's energy performance and comfort. In the interest of avoiding unintended consequences in the criteria, I wish to stress two issues:

1) It is important to allow for solar heat gain in properly designed buildings. While setting a maximum SHGC likely has a cumulative overall benefit in reducing cooling loads, it could punish superior building design. It is important to note that no glazing has a SHGC low enough to render unshaded Summer glazing "efficient" and that properly oriented and shaded windows with higher SHGC will not only exceed poorly oriented and shaded windows for Summer cooling load reduction, but also contribute significantly to reducing Winter heating loads. Passive Houses utilize solar and internal heat gains and proper shading in a strategy that renders conventional heating and cooling systems unnecessary in climates as harsh as northern Minnesota.

2) Please, please, please, begin to acknowledge the importance of air leakage in window specifications. The National Fenestration Rating Council (NFRC) has a rating, but it is OPTIONAL for manufacturers. Most manufacturers opt for an American Architectural Manufacturers Association (AAMA) air leakage test which is merely pass/fail at a rather high rate of leakage. There are likely few people who would suggest that a window with a hole through it's glass could be considered energy efficient, yet the leakage of the window units is generally ignored and relegated to insignificance. I do not feel I'm exaggerating to say that a leaky window renders the U value largely irrelevant, and that our current national disregard of the importance of air infiltration is tragic, if not downright stupid.

Allowing leaky windows and doors to be sold as "efficient" is bad enough, subsidizing the purchase of said shoddy products with taxpayer money is a mistake of monumental proportions. Also know that not all countries operate from this position of ignorance. European manufacturers are held to high standards of reporting and performance regarding air infiltration, as well as thermal conductivity (U value.) I would like to believe that in the quest to transform our built environment, we need not look overseas for windows and doors which make this possible.

Regards,
Graham Irwin
AIBD, CPBD, CGBP
Remodel Guidance

Residential Design • Plans & Permits • Green Building • Period Homes