



**Department of Energy**  
Washington, DC 20585

January 18, 2008

Dear ENERGY STAR<sup>®</sup> for Windows, Doors, and Skylights Stakeholder:

This is the second update on the ENERGY STAR criteria revision process for windows, doors, and skylights. It includes and expands on information the U.S. Department of Energy (DOE) presented at the National Fenestration Rating Council's (NFRC) Fall 2007 Membership Meeting.

In the October 9, 2007 letter to stakeholders announcing the beginning of the criteria revision process, DOE identified a number of elements for possible incorporation into a new specification.<sup>1</sup> As a result of subsequent research and discussion with stakeholders, DOE has refined a number of these elements and identified two new elements for possible inclusion. Refinements include:

1. A revised climate zone map (see Appendix 1 for the preliminary version introduced at the NFRC Fall Meeting)
2. Introduction of a phased approach with near-term, mid-term, and long-term criteria announced simultaneously
3. Near-term, estimated to be effective in 2009, criteria levels achievable with products in production or with feasible manufacturing modifications
4. A narrower range of U-factors in ES Zones 4 and 5 for 2009
5. Specific SHGC ranges to capture winter solar gain
6. A narrower SHGC range in ES Zone 1 for 2009
7. Preparation for IGU certification requirement
8. A later release date for the Criteria Proposal and Analysis<sup>2</sup>
9. More time to transition from the current to the new criteria (6-12 months)

The two potential new elements are:

1. Separate criteria for doors that differentiate between opaque and glazed doors
2. An air leakage requirement

Table 1 below shows the current range of possible options that reflects these refinements. The final proposed criteria will have single-value maxima or minima in each cell that fall within the ranges in Table 1. Table 1 does not yet reflect the results of the energy savings analyses, which could change some of the listed ranges. For cells containing the letters TBD (To Be Determined), DOE does not currently have sufficient data to propose a range of values and will do so after the energy savings analysis is complete.

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<sup>1</sup> See [http://www.energystar.gov/index.cfm?c=archives.windows\\_criteria\\_amendment](http://www.energystar.gov/index.cfm?c=archives.windows_criteria_amendment) to view a copy of the October 9, 2007 letter or contact Alice Dasek at D&R International, [adasek@drintl.com](mailto:adasek@drintl.com) or 301-588-9387.

<sup>2</sup> The release date is scheduled for early March, to take into consideration the outcome of the late-February IECC Code hearings. For the most current criteria revision process schedule, see the Preliminary Timeline at the end of this letter.

Preliminary ENERGY STAR Window Criteria Parameters*						
	2009		2012		2015	
ES Climate Zone	U-Factor	SHGC	U-Factor	SHGC	U-Factor	SHGC
5	0.30-0.32	Minimum 0.35-0.55	0.24-0.27	Minimum 0.35-0.55	0.20-0.24	Minimum 0.35-0.55
4	0.30-0.33	TBD	0.24-0.32	TBD	0.20-0.27	TBD
3	0.33-0.36	TBD	0.28-0.32	TBD	0.24-0.32	TBD
2	0.33-0.36	Maximum 0.30-0.35	0.28-0.35	0.25-0.30	0.28-0.35	0.23- 0.28
1	0.55-0.60	0.25-0.30	0.50- 0.55	0.23- 0.28	TBD	0.18 - 0.23

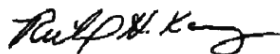
\* Preliminary criteria parameters may be revised in response to outputs from the technical and energy savings analysis. Final parameters will be set as single numbers, not ranges. DOE may allow trade-offs if the energy consumption analysis and code levels permit.

DOE is currently evaluating potential impacts of the proposed changes and has established the following preliminary timeline for the criteria revision process:

Preliminary Timeline	
Initial Analysis	July 2007 - February 2008
Publish and Distribute Initial Analysis	Early March 2008
Stakeholder Meeting in Washington, DC	March 26, 2008
Announce Finalized Criteria	May 2008
Earliest Effective Date of New Criteria	February 2009

DOE continues to welcome stakeholder input. If you have any questions regarding the criteria change process or would like to comment on the elements under consideration, please contact Alice Dasek at 301-588-9387 or [adasek@drintl.com](mailto:adasek@drintl.com).

Sincerely,



Richard H. Karney, P.E.  
ENERGY STAR Program Manager

## Appendix 1: Preliminary ENERGY STAR Climate Zone Map

Figure 1 compares the current and proposed ENERGY STAR climate zones, and Figure 2 shows the relationship between the climate zones proposed for ENERGY STAR and those adopted by IECC in 2006. Please note that these maps are preliminary and when final, will be defined at a county level of resolution.

