

TO: Richard Karney

RE: Criteria Revision - Public

Date: March 25, 2009

On behalf of Pella Corporation, we would like to thank you for allowing this opportunity to offer our recommendations for the ENERGY STAR® criteria before your final announcement.

When your final draft proposal was released on March 11, 2009, we were pleased to see that a majority of Pella Corporation's suggestions were taken in to account, such as:

- Eliminating Zone ES5A
- Combining Zones ES4 and ES5 into a single Northern zone representative of climate and design temperatures
- Postponement of setting the criteria for Phase 2
- · Removing mandatory IG testing

Pella continues to support the recommendations of WDMA and AAMA and suggests the DOE consider the following recommendations as well.

## **Pella Corporation Recommendations**

We would like the following four issues to be reconsidered before the final analysis is released in early April and Pella Corporation makes the following recommendations:

- 1. In the Northern Zone, reset the window's Solar Heat Gain Coefficient (SHGC) tradeoff for 0.31 U-Factor to be ≥ 0.20 SHGC and for 0.32 U-Factor to be ≥ 0.25 SHGC, respectively.
- 2. In the North Central Zone, reset the SHGC to ≤0.35.
- 3. In the Southern Zone, reset the U-Factor to ≤0.55 and SHGC to ≤0.30.

Zone	Revised Draft DOE Phase 1		March 2009 Recommendation	
	U-Factor	SHGC	U-Factor	SHGC
Northern	≤ 0.30 0.31 0.32	NR ≥ 0.35 ≥ 0.40	≤ 0.30 0.31 0.32	NR ≥0.20 ≥0.25
North-Central	≤ 0.32	≤ 0.40	≤ 0.32	<mark>≤0.35</mark>
South-Central	≤ 0.35	≤ 0.30	≤ 0.35	≤0.30
Southern	≤ 0.60	≤ 0.27	≤ 0.55	<mark>≤0.30</mark>

Note: Pella Corporation estimates the total Phase 1 energy savings target of 9.21 tBTU will be maintained with the proposed changes.

4. Move Sliding Patio Door Criteria into the Swinging Entry Door Criteria, and rename Door Criteria.



## **Pella Corporation Recommendation Analysis**

- 1. DOE should consider resetting the tradeoff values in the Northern Zone be changed as shown in the table above.
  - a. When DOE combined zones ES5 and ES4 into the Northern Zone, the 5:1 U-Factor to SGHC trade-off became much more stringent across the larger region.
  - b. The August 11, 2008 draft proposed a SHGC of 0.15 at a U-Factor of 0.30 and the March 11, 2009 Phase 1 draft criteria starts with an assumed SHGC ≥0.30 increasing the stringency across a broader geographic region.
  - c. It is unlikely that the energy savings analysis supports this dramatic shift in SHGC tradeoffs.
- 2. DOE should consider resetting the SHGC in the North Central Zone as shown in the table above.
  - a. The SHGC ≤ 0.35 represents an increase in stringency and aligns with products that can be economically produced.
  - b. The August 11, 2008 draft proposal represented a U-Factor of 0.32 with a SHGC of 0.27 ± 0.06.
  - c. The proposed SHGC ≤0.40 is not required for ENERGY STAR to be better than code and does not account for energy savings from real products in compliance with the proposed U-Factor.
- 3. DOE should consider resetting the U-Factor and SHGC for the Southern Zone as shown on the table above.
  - a. The 0.60 U-Factor is too lenient and too great a change from the 0.50 U-Factor proposed in the August 11, 2008 draft.
  - b. Pella Corporation recommends a U-Factor of 0.55 as a compromise with a corresponding change in SHGC to 0.30.
  - c. Changing the SHGC to 0.30 equates to the value for the South Central Zone where the DOE analysis shows the highest energy savings.
- 4. DOE should move Sliding Patio Door criteria into Swinging Entry Door Criteria, and rename Door Criteria.
  - a. Placing all doors, regardless of operation, in one criterion will reduce consumer confusion.

Pella Corporation would like to confirm that shipment data information does not go directly to the DOE or its contractor, but rather through Ducker Research and published by WDMA and AAMA as it presently exists. We also request confirmation that the transition timeframe listed in "Table 2: ENERGY STAR Windows, Doors and Skylights Criteria Schedule" applies to products manufactured after March 31, 2010, not to those in the distribution chain.

Richard, thanks to you and the team at D&R International for this opportunity. Please let us know if you have questions or need additional information.

Regards,

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