



November 18, 2011

TO: Doug Anderson
ENERGY STAR Home Improvement Program
Environmental Protection Agency

On behalf of Pella Corporation, we would like to thank you for giving us the opportunity to offer our recommendations for the ENERGY STAR® V6.0 Framework document.

Pella Corporation continues to be committed to improving energy efficiency through products, services and education. Partnering with the Environmental Protection Agency through the ENERGY STAR program allows us to reach our customers with the strength and awareness of the ENERGY STAR label.

Below you will find Pella Corporation's recommendations regarding the Windows, Doors and Skylights V6.0 Framework document submitted October 14, 2011.

Pella Corporation Statement of Intent

1. Partner with the EPA to focus on single-pane window replacement in the existing housing stock.
2. Support the use of ENERGY STAR as a means of providing consumers with the ability to select and differentiate energy efficient products in the marketplace.
3. Cooperate with EPA through ENERGY STAR to drive energy efficiency innovations in window and door products that are affordable and beneficial to consumers.
4. Work with WDMA and AAMA positions on future ENERGY STAR criteria for windows, doors and skylights.

Environmental Protection Agency's (EPA) ENERGY STAR V6.0 Elements for Consideration

1. Adding structural requirements to ENERGY STAR specifications.
2. Special allowances for high-altitude products.
3. Special allowances for impact-resistant products.
4. Including a visible transmittance rating.
5. Incorporating lifecycle analysis attributes.

Pella Corporation Recommendations for Elements Under Consideration

1. **Structural requirements:** Pella suggests that AAMA/WDMA/CSA 101/I.S.2/A440 North American Fenestration Standard (NAFS) certification be a prerequisite for ENERGY STAR qualification.
2. **High-altitude allowances:** Pella agrees and supports the EPA that no special allowances be made.
3. **Impact-resistant allowances:** Pella recommends a higher U-Factor criteria in the Northern zone be allowed for impact-resistant products due to the need for additional reinforcement and reduced insulating gas space. Pella recommends single-laminated impact products should not comply with ENERGY STAR V6.0 criteria.
4. **Daylighting/VT:** Pella agrees and supports the EPA to not include VT criterion at this time, however, we would like to continue exploring inclusion of VT for future revisions. ENERGY STAR criteria should not require a center-of-glass visible light transmission less than 50%.
5. **Lifecycle analysis:** Pella agrees and supports the EPA to not include LCA attributes in the next criteria revision. LCA is not intended for absolute ratings, per EcoCalculator™, an LCA support tool.

EPA V6.0 Elements Remaining Unchanged

1. ENERGY STAR climate zones to remain unchanged.
2. Tubular Daylighting Devices to follow skylight criteria.

Pella Corporation Recommendations for Elements Remaining Unchanged

1. Pella agrees and supports the EPA that climate zones should remain unchanged.
2. Pella agrees and supports the EPA that TDDs should follow skylight criteria.

EPA v6.0 Additions to Program Requirements

1. Air leakage to be labeled on product.
2. Installation instructions made available to consumers and installers online.

3. Criteria revisions for Windows and Doors:
Windows

Climate Zone	Maximum U-Factor to be set between	Maximum SHGC to be set between
Northern	0.25-0.27	Any
North-Central	0.28-0.30	0.35-0.40
South-Central	0.30-0.32	0.25
Southern	0.40	0.20-0.25

Doors

Glazing Level	Maximum U-Factor to be set between	SHGC
Opaque	0.15-0.19	No Rating
≤ ½-Lite	0.22-0.25	≤ 0.25
> ½-Lite	0.27-0.30	≤ 0.25

Pella Corporation Recommendation for Additions to Program Requirements

- Air leakage:** Pella recommends that the EPA require NAFS certification rather than just air leakage.
- Installation instructions:** Pella agrees and supports the EPA to place installation instructions online for consumers and installers.
- Window criteria revisions – U-Factor:**
 - Pella recommends the Northern zone be set at 0.28.
 - Pella recommends the North-Central zone be set at 0.30.
 - Pella agrees and supports the South-Central and Southern zone U-Factor criteria recommendations.
- Window criteria revisions – SHGC:**
 - Pella agrees and supports the Northern and North-Central criteria recommendations.
 - Pella recommends that SHGC not be lower than 0.25 in any zone. Anything lower than 0.25 requires fixed windows to always have dark tinted glass with a VT well below 50%.
- Door criteria revisions:**
 - Opaque** – Pella recommends the U-Factor be set at 0.19.
 - ≤ ½-Lite** – Pella recommends the U-Factor be set at 0.25.
 - > ½-Lite** – Pella recommends the U-Factor be set at 0.30.
 - Pella recommends the SHGC not be lower than 0.30 for > ½-Lite. Anything lower would require the consumer to select door and window glazings that do not match, especially in the Northern zone, because doors are not categorized in climate zones like windows.

Other Pella Corporation Recommendations

- Single-pane window replacement:** Pella wants to work with the EPA to emphasize energy savings to the homeowner regarding replacement of single-pane windows in the existing housing stock.
 - If 100% of existing windows were converted to ENERGY STAR, the energy consumption savings would be 1.12 quadrillion Btu's per year⁽¹⁾.
- Product flexibility:** Pella supports the WDMA's position on qualified product flexibility for grids. High-altitude insulating glass with capillary or breather tubes should not be included in qualified product flexibility.
 - Pella recommends that SHGC criteria be based on center-of-glass rather than whole product ratings.

EPA Tentative Timeline

Tentative Timeline	
Draft 1 Criteria and Analysis Report	March 2012
Stakeholder Meeting	April 2012
Comment Period	March 2012 – May 2012

Draft 2 Criteria and Analysis Report	July 2012
Comment Period	August 2012
Publish New Program Requirements	September 2012
Criteria Take Effect	Fall 2013


Pella Corporation Recommendations for Timeline

Pella would like to request that the EPA delay the implementation date for the criteria to take effect no earlier than January 1, 2015.

With today's economic conditions, it is imperative to make ENERGY STAR products as affordable as possible to encourage consumer usage. Significantly tighter restrictions will invariably increase the cost to consumers which could result in lower adoption. This would undermine the EPA's goal and our goal to get more efficient products in people's homes. To this end we are recommending improvements that we believe strikes a good balance between increasing the requirements without driving significant cost into the marketplace.

Again, Doug, we appreciate this opportunity to provide our recommendations and look forward to providing further analysis if needed.

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⁽¹⁾ United States Environmental Protection Agency. ENERGY STAR® and Other Climate Protection Partnerships 2006 Annual Report; http://www.energystar.gov/ia/news/downloads/annual_report_2006.pdf.