

Via Electronic Transmission Only

November 18, 2011

Mr. Doug Anderson
ENERGY STAR Programs
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001

Re: Comments on ENERGY STAR Programs Version 6.0 Product Specification Framework Document

Dear Mr. Anderson:

This letter is in response to the ENERGY STAR Programs with Windows, Doors, and Skylights Version 6.0 Product Specification Framework Document dated October 2011 ("Version 6.0 Document").

Thank you for the opportunity to comment on the proposed changes prior to implementation. We appreciate the EPA's willingness to discuss and change the ENERGY STAR program proposals, in order to offer the best program possible for product consumers.

JELD-WEN strives to provide the largest selection of energy efficient windows and doors to the market at a reasonable and affordable price point. We continue to be concerned about the affordability of ENERGY STAR qualified products. Extending the payback period for these products beyond 5-7 years is not within the expectations of most consumers. A preliminary review reveals that the changes proposed could add 20-25% price premium which can push the years of payback in some climate zones to 26 – 34 years. We do not believe this long payback is acceptable to consumers. Our customers want to balance energy ratings, style, structural performance, and affordability to fit their needs. While this letter will offer comments on each section of the Version 6.0 Document, below are some general comments on these latest proposed changes.

JELD-WEN believes it is necessary that ENERGY STAR labeled products offer our customers solid performance in energy savings, and further that an ENERGY STAR label should signify products that provide long-term durability while also providing energy savings. JELD-WEN continues to support the concept of a "most efficient" category, and believes these products should have different qualifying criteria than those with proven long-term durability.

The proposed implementation date for the Version 6.0 Document is much too early. JELD-WEN requests the deadline be moved to no earlier than January, 2015. ENERGY STAR Phase 1 criteria, implemented just 18 months ago, has yet to realize its benefits. The costs of implementing Phase 1 criteria have not been recovered. Short lived program changes do not allow sufficient time for

manufacturers to recover the investments they have made to comply with qualification criteria, and it is not in the best interests of our customers.

ENERGY STAR is a voluntary program which tends to place the bar higher than the energy codes, and Phase 1 is ahead of the yet to be implemented 2012 IECC in many ways. There is no urgency to rush into another revision, which places cost burdens on consumers and manufacturers in hard economic times.

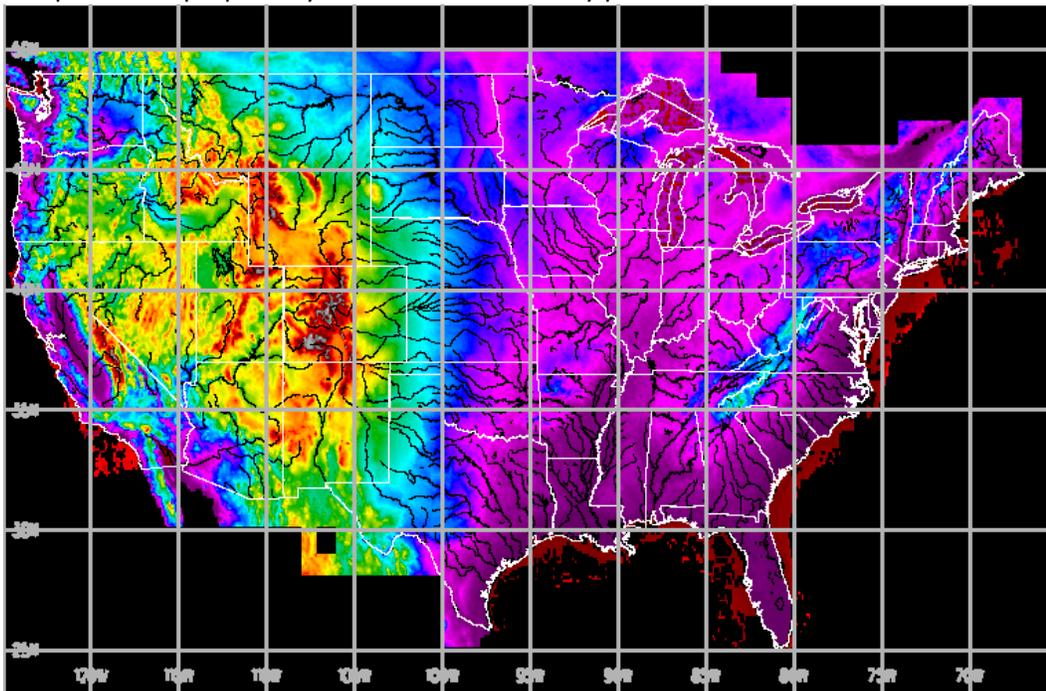
JELD-WEN offers the following comments regarding the ENERGY STAR Program elements considered for adoption.

II.a. Structural Requirements. -

Most window products are already NAFS certified for air, water, and structural performance. This possible requirement will not create a backlog at labs . Code compliance requires products be certified to the NAFS standard, so this does not add any additional burden. -

II.b. Products Installed at High-Altitude. -

Fenestration products installed at high altitudes must have a 0.04 U-Factor adder to allow for the breather tube, and inability to gas-fill in the insulated glass unit. Further the Version 6.0 document states there are a small number of products installed at high altitudes. Our research below shows that this is incorrect. The majority of the land mass in eight Western States is above 4000 feet. The population in these States is more than 21 million¹excluding California. The EPA should also not base compliance on proprietary devices that claim easy pressure difference normalization. -



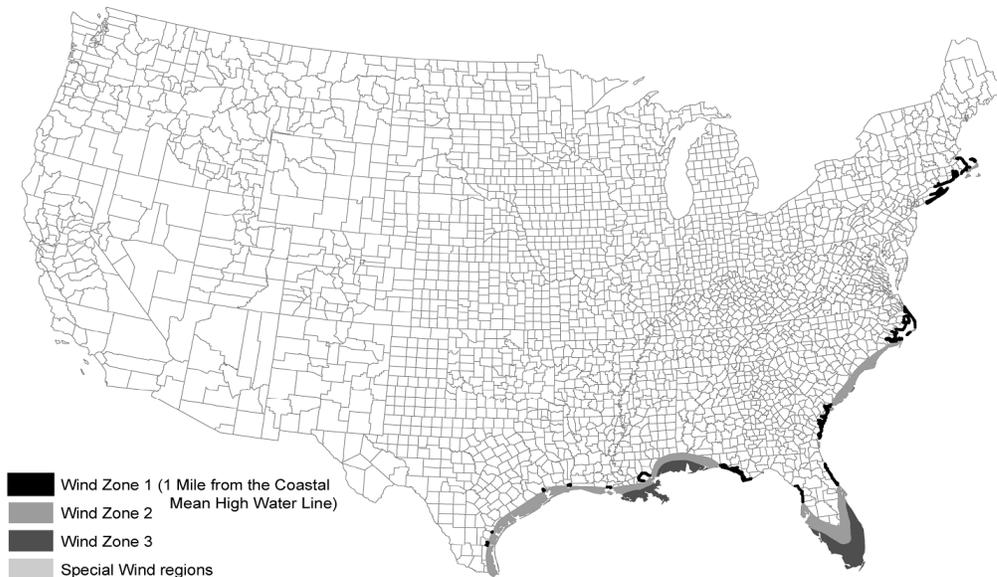
¹ (2008 data);

<http://www.mapsalive.com/InteractiveMapsBlog/post/2011/01/31/Interactive-USA-Population-Map.aspx> ;
<http://weather.unisys.com/usgs/index.php>)

II.c. Impact-Resistant Products.

ENERGY STAR should definitely consider coastal areas of the United States that require wind-borne debris protection per the International Residential Code (“IRC”). JELD-WEN recommends a U-Factor allowance of 0.05 to accommodate the design challenges. The highlighted areas below require special glazings that need Energystar consideration by allowing the.05 adder.

Figure 1: IRC Wind-Borne Debris Map



Note:
Wind Zone 3 applies for:
Guam
Virgin Islands
American Samoa
Puerto Rico

Note: Wind Zone 3 applies in Wind Zone 2 areas that are within a mile of the Coastal Mean High Water Line.
Note: Wind Zone 1 applies in Hawaii - Special Wind Regions.

II.d. Daylighting.

EPA has reached the reasonable conclusion that Visible Light Transmittance should not be part of the ENERGY STAR program – we agree. However we are concerned that lowering SHGC too much will affect Visible Light Transmittance negatively, and would ask the EPA to keep this in mind.

II.e. Lifecycle Analysis.

JELD-WEN agrees with the EPA that Lifecycle Analysis should not be part of ENERGY STAR criteria at this time. Lifecycle Analysis is in its infancy, and there is not enough product data to make LCA a reasonable requirement. JELD-WEN does take issue with EPA’s statement “...the study was canceled due to lack of industry support”. This is simply not true. The product-specific Life Cycle Analysis that the Center for Sustainable Building Research sought to initiate did not lack industry support. Industry leaders are currently meeting with the American Center for Life Cycle Assessment to develop the Product Category Rules necessary to advance LCAs for specific products. JELD-WEN is actively involved in these efforts. We request EPA clarify the industry position supporting LCA development.

III.a. ENERGY STAR Climate Zones. -

JELD-WEN supports the EPA in retention of the current boundaries for the climate zones, but only for simplification purposes. If changes are to be made JELD-WEN suggests a reduction of climate zones. The qualification criteria is now so close that it may be time to consider the United States as two climate zones and use the recommended criteria for the North Central and Southern climates zones for this proposal.

IV.a. Air Leakage.

JELD-WEN agrees with the EPA to add an air leakage requirement and that testing should be to NFRC 400, or NAFS, as required in the IECC. We believe the air leakage requirements should indicate compliance only and if required, be conditional upon operating force.

IV.b. Installation Instructions. -

JELD-WEN agrees that installation instructions should be provided by the manufacturer to instruct the installer how to seal fenestration product into the building envelope. Manufacturer supplied installation instructions should address the application of the flashing and sealing around the window.

V. Proposed Revisions to Product Criteria. -

We find the specific criteria for the Northern climate zone concerning. The estimated impact of compliance to the proposed criteria is estimated to add between 20% and 25% to the cost of many qualified products. This proposal will also unfairly limit the models that can qualify for ENERGY STAR in the Northern climate zone. We also strongly urge EPA to forgo the use of any transition label process as was used with the transition to Phase 1. This added significant unnecessary costs to the transition, and ultimately created far more confusion than it alleviated.

V.a. Windows. We strongly urge the consideration of the following. We believe we are at the limit of reasonable payback for the energy savings realized in Northern zones and projected energy costs. Our recommendation is to extend the Phase 1 criteria for the Northern climate zone only. ENERGY STAR criteria changes to the thermal performance for the Northern Climate zone may require triple pane with dual Low E IG's, and more exotic gas fills. This is, in effect promotes the use of products that may not offer consumers reasonable payback for their purchase, relative to energy savings. We estimate the proposal will ultimately result in less overall energy savings due to reduced sales of Energy star products. JELD-WEN also urges the EPA to keep Canadian ENERGY STAR criteria in mind when setting the requirements for the U.S. Northern climate zone. The ENERGY STAR Northern climate zone criteria should not be more stringent than climate zones A & B criteria as proposed by NRCAN for Canadian ENERGY STAR.

In the North-Central climate zone, we recommend the U-Factor be set at 0.30 and the SHGC should be 0.35. For the South-Central climate zone, JELD-WEN recommends a U-Factor of 0.32, and the SHGC shall not be below 0.25. In the Southern climate zone, it is recommended that the U-Factor be 0.40, and SHGC shall not be below 0.25. These changes recognize the demographics and populations of these zones and their higher impact on total energy savings.

JELD-WEN proposes the values as indicated in Figure 2.

Figure 2: Table Comparing Phase 1 with ENERGY STAR Proposed Levels and JELD-WEN Proposed Levels for Windows

Climate Zones	Phase 1 ENERGY STAR		Proposed Version 6.0 ENERGY STAR		JELD-WEN Proposed	
	Max. U-Factor	SHGC	Max. U-Factor	SHGC	Max. U-Factor	SHGC
Northern	0.30	Any	0.25-0.27	Any	0.30	Any
North-Central	0.32	0.40	0.28-0.30	0.35-0.40	0.30	0.35
South-Central	0.35	0.30	0.30-0.32	0.25	0.32	0.25
Southern	0.60	0.27	0.40	0.20-0.25	0.40	0.25

V.b. Doors. We recommend the criteria not be set below the higher U-Factor limits being proposed. The proposed SHGC maximum values should be modified to be no greater than 0.30 for >1/2 lite assemblies. Generally door systems are shaded by overhangs and SHGC is of little consequence.

Figure 3: Table Comparing Phase 1 With ENERGY STAR Proposed Levels and JELD-WEN Proposed Levels for Doors

Glazing Level	Phase 1 ENERGY STAR		Proposed Version 6.0 ENERGY STAR		JELD-WEN Proposed	
	Max. U-Factor	SHGC	Max. U-Factor	SHGC	Max. U-Factor	SHGC
Opaque	0.21	Any	0.15-0.19	Any	0.19	Any
<1/2 Lite	0.27	0.30	0.22-0.25	0.25	0.25	0.25
> 1/2 Lite	0.32	0.30	0.27-0.30	0.25	0.30	0.30

Finally, the EPA should strongly consider the historical drop in window and door sales and the corresponding drop in Energystar product sales. The USA still has one billion poor, single pane windows that need to be replaced. The Energystar mark becomes the defacto requirement for window purchases, therefore we must continue to consider the many points in Version 6.0 and ensure that it fits the technology, market, and affordability criteria our customers need. The only way the consumer wins is if we all work together to create the best system. -

Again, we want to convey our appreciation for the opportunity the EPA has created to promote industry, consultant, and Department of Energy cooperation. -

Sincerely, -
 Ray Garries -
 JELD-WEN, inc. -