



Christian G. Magnuson

President/Chairman

February 8, 2013

Mr. Doug Anderson  
Environmental Protection Agency  
1200 Pennsylvania Avenue, NW Washington, DC 20460

The Honorable Senator Susan Collins  
413 Dirksen Senate Office Building,  
Washington, DC 20510-1904

The Honorable Senator Angus King  
188 Russell Senate Office Building,  
Washington, DC 20515

The Honorable Representative Chellie Pingree  
1318 Longworth House Office Building,  
Washington, DC 20515-1901

**Please accept the late submission of this comment which was delayed until Monday 2/11/13 due to severe weather conditions experienced in Maine during the Friday-Saturday Northeast blizzard/winter storm event**

Re: **ENERGY STAR for Windows, Doors, and Skylights – Version 6.0 Proposed Product Specifications**

Wasco Products Inc. is a long time participant in the Energy Star Program and a current member of the NFRC. These comments are relative to Wasco's residential unit skylight products/markets.

Although we are appreciative of the work conducted by EPA to ensure that this program provides consumers with clear paths to energy efficiency, there continues to be a fundamental disconnect of the program's ultimate goals, between stakeholders and EPA.

The demand to exceed IECC 2012, results in prohibitive product cost increases which risks putting these products out of financial reach to the vast majority of today's recession-impacted consumers.

Further, a review of code adoption history, exhibits that just over half of the country has currently adopted the 2009 IECC. One state has adopted the 2012 edition. This is clear indication of the 4+ year lag in IECC adoption throughout the country. Based on this history, 50% or less of the country will have adopted IECC2012 requirements until 2016 and beyond.

Delaying the implementation of ENERGY STAR 6.0 does not risk the integrity or intent of the program. In fact, it maintains a product performance level that has proven to be instrumental in energy savings. According to the EIA's 2009 energy consumption results, demand for heating, cooling and artificial lighting have considerably decreased since 1993 and advances made in fenestration technologies have likely further substantially reduced consumption since 2009.

Homes where outdated unit skylights remain, are vastly owned by those who can least afford the impact of increased product costs. The availability and affordability of currently marketed, high performing double-pane (daylight introducing) Skylights and TDDs needs to be maintained in order to continue the nation's and EPA's initiative to reduce energy consumption by replacing underperforming products.

Given the ongoing volatility and uncertainty surrounding the U.S. economy and the States' history of delayed adoption of IECC requirements, AAMA reiterates our position that the 6.0 version criteria proceed only with an open-ended implementation date of 2015, and revisited at that time to ensure a sustained relief in the housing industry and improved economic conditions.

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Forcing the implementation of more rigorous criteria during the ongoing economic crisis should not result in jeopardizing the ENERGY STAR program or the capacity for manufacturers' and homeowners' to absorb the additional costs of program enhancements.

**SKYLIGHT CRITERIA**

Continuing to dismiss the overall benefits of daylighting on humans and the energy savings realized by reducing the need for artificial lighting has created an ENERGY STAR program for skylights and TDDs that continues to lead to prohibitive manufacturing costs, while significantly decreasing the advantages provided by these products. Studies have been conducted to show the value of introducing daylighting that the EPA can use to glean essential information. These analyses must be reviewed and the information must be used in order for skylight and TDD properties to be correctly developed by EPA.

**Skylight Criteria – Northern Zone**

In defending its position on differentiating SHGC criteria for windows and skylights in the Northern Zone, EPA states its concern for “possible consumer discomfort, especially in the summer months, because skylights receive more direct sun than windows.” The decision to increase criteria and subsequently production costs should not be made on a “possibility.”

Skylight manufacturers are far more familiar with the demands for consumer comfort and ensure that their products address this in order to maintain sales. Products are made with a focus on consumer satisfaction or they are not purchased. Until EPA has conducted a thorough analysis and can provide substance to this assertion, it is imperative that the documented benefit of heat gain in Northern Climates be the determining factor in SHGC requirements.

The effect of the direct sunlight derived from skylights is a fairly small part of the typical residential glazing package. EPA did not seek to exceed the IECC criteria for SHGC in windows and has not adequately justified the reasoning for using this criteria for skylights. Any product made with the same configuration (glass package, i.e. thickness, and framing materials) of components should qualify.

Further, according to the EPA Most Efficient criteria for windows, SHGC in Northern Climate is viewed as a benefit, while EPA regards SHGC as a negative for skylights without providing an analysis or justifying this based on technical reasoning.

A complete response from EPA on the background of this decision is necessary.

**Skylight Criteria – Southern Zone**

The rating system for SHGC measures only the percentage of potential heat gain through a fenestration product. EPA used SHGC in their response comment when it appears they meant to reference the amount of Solar Gain only.

EPA did not seek to exceed the IECC criteria for SHGC in windows and has not adequately justified the reasoning for using this criteria for skylights. A response from EPA on the background of this decision is necessary.

DRAFT CRITERIA FOR SKYLIGHTS						
	U-Factor			SHGC		
Climate Zone	Current ES Criteria	EPA Draft 1 Criteria	AAMA Recommendation 2012	Current ES Criteria	EPA Draft 1 Criteria	AAMA Recommendation 2012
Climate Zone	Maximum U-Factor	U-Factor	Maximum U-Factor	Maximum SHGC	SHGC	Maximum SHGC
Northern	0.55	≤ 0.45	0.50	Any	≤ 0.35	Any
North-Central	0.55	≤ 0.47	0.50	0.40	≤ 0.30	0.40
South-Central	0.57	≤ 0.50	0.55	0.30	≤ 0.25	0.30
Southern	0.70	≤ 0.60	0.65	0.30	≤ 0.25	0.30

**Payback Periods**

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Until EPA recognizes the daylighting benefit of skylights and the resulting cost savings derived by making consumers less reliant on artificial lighting loads, EPA cannot justify the cost-effectiveness of lowering the SHGC to this level. EPA paybacks currently exhibit 22 – 71 years. Payback periods need to maintain a range that will attract consumers.

#### Skylight Analysis

Cost effectiveness analyses were more limited for skylights than for windows and do not take into account regional differences and energy savings in each zone. EPA has been provided with cost data by a number of manufacturers that has not been considered in creating the cost/benefit analysis. A more expansive range of costs must be reviewed and utilized by EPA in developing this analysis. Triple pane (which is required in many areas by code) costs are excluded.

Skylight distribution is very regional in many cases. Few companies market their products nationwide. Based on the limited size of the dataset used, valid conclusions cannot be drawn.

RESFEN 5 assumptions do not address the daylighting benefits provided by skylights. Shading which was allowed for windows was not allowed for skylights.

Additionally, by not subdividing the skylight analysis into product types, very few existing curb mount CPD listings can qualify in all zones under the proposed criteria. Curb mount skylights are typically used in many markets and more curb mount products need to qualify for ENERGY STAR to provide consumers that need a curb mount type skylight with ENERGY STAR options.

The assumptions in the referenced documents seem to be biased against modern skylights. We've analyzed RESFEN 5, and while understanding that no alternate tool exists, find the assumptions to be inflexible when attempting to develop an accurate analysis of all energy impacts of skylights, such as reduced heating, cooling and artificial lighting loads.

#### Certified Products Directory

The CPD lists a high number of developmental products, therefore offers limited benefit in providing a feasibility analysis. By utilizing the CPD to inform the selection of criteria, the EPA has further incorrectly extrapolated skylight product availability, skewing cost criteria and availability issues

#### Technical Concerns

In general EPA either didn't understand or didn't accurately address the original comments in their response. Responses to technical issues, which may not be understood by EPA, were ignored. Stakeholders have consistently expressed their willingness to assist EPA with specific information on manufacturing and consumer quality assurance that would assist EPA in reaching more coherent determination

#### **Conclusion**

Wasco is an invested and concerned stakeholder in the ENERGY STAR program.

ENERGY STAR products should not be something that only the rich can afford for their homes. To reduce the strain on our nation's energy resources, ENERGY STAR products must be affordable to ALL homeowners.

The goal of ENERGY STAR should not waiver based on self-imposed time constraints to update the program. We also know that advancing beyond the IECC2012 is unnecessary as individual state adoptions will likely be deferred for several years.

EPA and stakeholders can take pride in the tremendous reduction in energy consumption already witnessed and documented across the program. A multitude of ENERGY STAR qualified, high performing, energy-efficient fenestration products are currently available at a price point attainable to many consumers. And as the economic crisis eases, many more will be able to invest in these products.

Placing revisions to the ENERGY STAR program on hold for an additional twelve months offers an opportunity to monitor and reassess the economic climate and allows manufacturers who are also climbing out of the worst economic conditions in 50 years to gradually invest in necessary and costly retooling.

In addition to sharing our comments with EPA, and members of the Congressional delegation in Maine where Wasco is headquartered, Wasco's industry trade association AAMA (American Architectural Manufacturers Association) will also be sharing this input with members of their Congressional delegation in Illinois.

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Wasco fully appreciates the work and dedication of all involved in developing and supporting the ENERGY STAR program and aspire to maintain a program that assures its continued success. Wasco remains dedicated to providing input to EPA to help create a workable, affordable program that achieves the goal of helping Americans save energy in their homes.

Thank you for this opportunity to comment on the proposed revisions to ENERGY STAR. I am available to further discuss any of our recommendations at your earliest convenience.

Sincerely,

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