

September 6, 2013

Douglas Anderson
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue NW
Mail Code: 6202J
Washington, DC 20460

REF: Revised Draft 2 specifications for ENERGY STAR Windows, Version 6.0

Dear Doug:

The Alliance to Save Energy, a non-profit 501(c)(3) energy efficiency organization based in Washington DC, welcomes the opportunity to submit these comments on the most recent revised specifications for ENERGY STAR residential windows, doors, and skylights (Draft 2, Version 6.0). In several cases, we would like to reiterate our previous (October 2012) comments submitted on Draft 1, Version 6.0 of the standards.

As before, we would commend the ENERGY STAR team for a thorough, transparent, and well documented process of updating the window specifications, including detailed public responses to many of the stakeholder comments submitted on Draft 1.

New requirements for air leakage and installation instructions. Our previous comments supported the decision to add requirements for window air leakage and manufacturers' installation instructions, while noting that air leakage testing would ideally be done *in situ* (recognizing the need to develop improved *in situ* test methods); and that written installation instructions could be considered only one step toward a needed quality assurance program including installer training and certification, installation quality-checks, and consumer warranties. Future activities to enhance quality installation might be done in collaboration with utilities, manufacturers, and contractor organizations.

We agree with the decision to temporarily accept other organizations' existing air leakage certifications, in addition to NFRC certification, until each manufacturer completes the next round of NFRC label updates, but we hope that EPA will make some efforts even in the near term to assure the accuracy of these interim certifications.

U-factor and SHGC requirements. We would like to underscore a couple of points made in our prior comments, regarding the currently proposed U-factor and SHGC criteria:

- a) ***Relation to the model energy code.*** EPA has noted that the relationship between ENERGY STAR criteria and building code requirements is only one of several

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factors considered in setting or revising an ENERGY STAR specification. The fact that the proposed U-factor for the Southern Zone (≤ 0.40) is identical to the IECC-2012 code requirement is of less concern to us than the congruence of ENERGY STAR and code requirements for SHGC in all three of the warmer climate regions: South and South Central (SHGC ≤ 0.25) and North Central (SHGC ≤ 0.40). Moreover, these SHGC requirements are also exactly the same as the current (2013) requirements for ENERGY STAR “Most Efficient”; only the U-factor defines the more stringent level for “Most Efficient” windows in these three regions. We would suggest that the revised ENERGY STAR “Most Efficient” criteria for these three regions, for 2014 and beyond, might place increased emphasis on SHGC and its associated reduction in cooling energy and summer peak load – which might help increase the interest by utilities in these regions in offering incentives for ENERGY STAR windows (especially in new homes) since these are already required by the current model energy code.

- b) *SHGC trade-off.* We continue to **disagree** with the concept of a trade-off between U-factor and SHGC in the Northern zone – not because we see no value to passive solar heating from a higher-SHGC window installed in the proper circumstances, but because a product-level designation such as ENERGY STAR windows has no obvious mechanism for distinguishing between windows installed in exposed (unshaded) west and south façades and those installed with a properly shaded south orientation. Since the heating energy savings could easily be offset (or more) by excess solar gain, we see no justification for using the ENERGY STAR label – as opposed to code requirements (or ENERGY STAR Homes criteria) to assure the correct use of higher-gain glazing (even with a slightly lower U-value) while avoiding discomfort from excess solar gain, added on-peak air conditioning loads, fading of carpets and furnishings, etc.

This point was further detailed in comments submitted by Cardinal Glass on February 8, and we fully support the case presented in those separate comments.

As an alternative to this u-factor/SHGC trade-off, we would instead urge ENERGY STAR to consider ways to provide useful and effective guidance to consumers and contractors about where to install low- vs. high-SHGC ENERGY STAR windows. Having made a start with the requirement for manufacturers to provide instructions on high-quality window installation, perhaps additional guidance could be provided to both consumers and contractors on appropriate applications of low- vs. high-SHGC glazing.

Effective Date. We believe that, given the breadth and intensity of stakeholder comments on Draft 1 of Version 6.0, ENERGY STAR has made a prudent decision to defer the proposed effective date until January 2015. At the same time, EPA should continue to monitor changes proposed for the 2015 IECC, which will be decided at the Final Action

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Hearings in October 2013, to see if window provisions in the 2015 model energy code might change the timeline for the next ENERGY STAR windows update (V 7.0).

Thank you for this opportunity to comment.

Most sincerely,

Jeffrey Harris
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About the Alliance

The Alliance to Save Energy is a nonprofit organization working for more than three decades to promote energy efficiency worldwide through research, education and advocacy. We bring together business, government, environmental and consumer leaders to promote energy efficiency worldwide through research, education and advocacy. In concert with our 180+ Alliance Associates and our many coalition partners and allies we encourage business, government, environmental and consumer leaders to look to energy efficiency as a means to achieve a healthier economy, a cleaner environment and greater energy security. Our staff of about 80 located in Washington, D.C., other U.S. cities, and several other countries includes economists, engineers, financial experts, public policy specialists and communications professionals with a wealth of experience on energy efficiency in the private and public sectors. In addition, for many years the Alliance has administered the Efficient Windows Collaborative (EWC) on behalf of itself, the University of Minnesota, and Lawrence Berkeley National Laboratory – working with window manufacturers and other stakeholders to provide unbiased information on the benefits of energy-efficient windows, descriptions of how they work, and recommendations for their selection and use..

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