

November 8, 2013

Doug Anderson  
ENERGY STAR<sup>®</sup> Program  
U.S. Environmental Protection Agency  
Washington, DC 20460

Dear Mr. Anderson,

The Consortium for Energy Efficiency (CEE) respectfully submits the following comments in response to the *ENERGY STAR<sup>®</sup> Final Draft Version 6.0 of the Windows, Doors, and Skylights Product Specification* released by the Environmental Protection Agency (EPA) on July 31, 2013.

CEE is the binational organization of energy efficiency program administrators and a staunch supporter of the ENERGY STAR Program. CEE members are responsible for ratepayer-funded efficiency programs in 45 US states and seven Canadian provinces. In 2011, CEE members directed \$6.1 billion of the \$7.6 billion in energy efficiency and demand response program expenditures in the two countries. These comments are offered in support of the local activities CEE members carry out to actively leverage the ENERGY STAR brand. CEE consensus comments are offered in the spirit of strengthening ENERGY STAR so it may continue to serve as our national marketing platform for energy efficiency.

CEE highly values the role ENERGY STAR plays in differentiating energy efficient products and services that the CEE membership supports locally throughout the US and Canada. We appreciate the opportunity to provide these comments.

## CEE Sees Value in Incorporating Air Leakage Requirements Provided they Prove Cost Effective

CEE supports the inclusion of cost effective air leakage requirements, and maintains that they could contribute to increased energy performance for windows, doors, and skylights. Furthermore, the qualification of fenestration products does not currently include any

requirements relative to the permitted amount of air infiltration between conditioned and unconditioned spaces, which we believe has the potential to impact customer satisfaction, post installation.

For these reasons, CEE members see value in adding requisites that would cost-effectively minimize energy losses due to air leakage. We also recognize that this ENERGY STAR specification covers a singular component of the building envelope; so while support for air leakage requirements could serve to minimize the amount of infiltration related to individual fenestration products, overall building performance remains a function of the energy profile for the entire envelope system.

As proposed, working in conjunction with the established National Fenestration Rating Council (NFRC) resources should help to reduce the compliance burden on manufacturers and promote greater market consistency. NFRC's 2011 revision of its testing specification for air leakage was expanded to reference the following commonly used platforms; AAMA Gold Label, Keystone Certification, Inc. NAFS Structural Certification Label, NAMI NAFS Structural Certification Label, and WDMA Hallmark Certification Label. CEE believes that certification of air leakage performance within ENERGY STAR, and based on these four labels, will serve to further align Version 6.0 with verified third-party practices currently in place in the market. CEE commends the objectives that would appear to be met through the inclusion of proposed air leakage requirements, as well as the ability of manufacturers to reference equivalent labels, but notes that we lack data by which to assess the effect of such requirements on total certification expense to manufacturers. Accordingly, we suggest that it is appropriate for cost considerations to remain an input to the final specification criteria, and support EPA's efforts to strike an appropriate balance between cost and performance.

## CEE Supports the Inclusion of Installation Instructions as a First Step towards Quality Installation

CEE appreciates that quality installation of windows, doors, and skylights is integral to the overall performance of a building's envelope, and accordingly remains a strong proponent for the incorporation of installation measures that are compatible with the ENERGY STAR Program and enforceable within the means of the Program. Substandard installation of products can lead to a host of problems, including air infiltration, water leakage, reduced functionality of the unit, accelerated product decline, and mold growth. As noted in previous comments, CEE applauds EPA's effort to address this critical subject and we support the inclusion of instructions to installers as a first step towards an overall strategy that addresses quality installation. Based on the experience that CEE members have with promoting quality HVAC installations, we believe a multi-faceted strategy that includes components like training requirements, specified third party

procedures, and verification measures, are helpful in defining and influencing robust quality installation of products in the market. Accordingly, we look forward to working with EPA as discussions continue regarding holistic strategies to address delivery of quality installation for windows, doors, and skylights.

## CEE Recommends a January 1, 2014 Effective Date

CEE continues to support the original proposed Version 6.0 effective date of January 1, 2014, and recommends that EPA avoid delaying implementation an entire calendar year to January 1, 2015. As indicated below, we believe EPA's supporting analysis and documentation demonstrate that the ENERGY STAR brand tenets are being effectively met, and thus justify a January 1, 2014 effective date.

With respect to market share, EPA's *Version 6.0 Draft 1 Criteria and Analysis Report* indicates that as of July 2012, market share of Version 5.0 qualified windows, doors, and skylights were at 81%, 71%, and 70% respectively. Moreover, Figure 1 in the Report shows that market share of qualified products has increased in each year since 2001, even with the adoption of three new specification levels over the same period. While the analysis does not necessarily project future trends, it does indicate that the number of products meeting ENERGY STAR criteria has increased consistently over the reporting period.

In terms of product availability, EPA's *Introduction to Response Comments* document reveals that many models from a variety of manufacturers already meet the proposed Final Draft Version 6.0 specification criteria. With respect to technology, the product performance information collected and subsequently analyzed through EPA's Products Available for Sale Database included over 17,000 models from over 20 of the top manufacturers, and indicates that a variety of double-pane and triple-pane options already met the proposed specification levels as of the study's completion in 2010.

Regarding payback period, the *Review of Cost Effectiveness Analysis* report demonstrates that low- and average-cost products available today exhibit payback periods of less than ten years for all but three cities across the United States, and less than seven years in all but five. Using a conservative marginal cost of \$20, the analysis supports ENERGY STAR's guiding principal to recognize products with payback periods that occur within the expected service lifetime of the product; the typical lifetime for a window is between 20 and 30 years, as cited in the *Version 6.0 Draft 1 Criteria and Analysis Report (July 2012)*.

Thank you for your consideration of these comments. CEE strongly supports ENERGY STAR and appreciates the opportunity to offer the comments provided in this letter. Please contact CEE Program Manager Alice Rosenberg at [arosenberg@cee1.org](mailto:arosenberg@cee1.org) or 617-337-9287 with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ed Wisniewski".

Ed Wisniewski  
Executive Director