



To: windows@energystar.gov

From: Chris Duffrin, President, Center For Energy And Environment

Isaac Smith, Residential Program Development Manager, Center For Energy And Environment

RE: Comments related to ENERGY STAR Residential Window, Door and Skylight Version 7.0

Date: 8/20/21

Center For Energy And Environment (CEE) respectfully submits the following comments related to ENERGY STAR Residential Window, Door and Skylight Version 7.0.

CEE has deep experience with home retrofits and ENERGY STAR

CEE is one of the leading energy efficiency researchers and program implementers for home retrofits, especially in cold climates. Our research engineers regularly collaborate with Department of Energy, the national labs, and others to conduct field and market studies that advance knowledge of the real-world impact of efficiency technologies, and how to best accelerate consumer adoption. We run nationally-recognized home retrofit programs, most notably the Home Energy Squad (for Xcel Energy), and we have helped homeowners to implement tens of thousands of home retrofits.

An Update is Needed

CEE believes that an update to the ENERGY STAR window specification is long overdue. This is evident by ENERGY STAR's 89% market share for residential windows in the northern climate zone. ENERGY STAR should represent the highest performing products, but the current specification is missing the mark. There are currently triple-pane windows available from several manufacturers, which represent the highest performing (< U-value of 0.22) windows on the market. We believe that these products should represent the level that is needed to attain the ENERGY STAR label.

Significant Savings Opportunity

Windows typically represent 10% of a home's building envelope, but account for 30%-40% of the home's heat loss in the winter. Builders can continue to add more insulation and make homes tighter, but windows remain a major obstacle to more energy efficient homes.

CEE works with new-home builders on utility rebate programs throughout Minnesota. Builders who are striving to go beyond code often reach a limit on the savings they can achieve. This is in large part because of the windows they are installing, but high-performance options (U-value < 0.22) are not readily available and often cost more. CEE believes that an update to the ENERGY STAR specification that is targeted at a U-value of 0.22 will help increase the availability of these products and make it easier for builders to build more energy efficient homes.

Market Advancement is Needed

From an energy performance standpoint, the window market has plateaued in the United States. ENERGY STAR's market share has consistently been over 80% since 2010. CEE believes that the increased performance requirements outlined in version 7.0 are needed to drive this market forward and

increase demand for high-performance windows. This demand will encourage manufactures to produce and supply more efficient windows, which will lower cost of these products and alleviate many of the current market barriers.

Sincerely,

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Chris Duffrin, President

A handwritten signature in black ink, appearing to read "Isaac Smith". The signature is cursive and somewhat stylized.

Isaac Smith, Residential Program Development Manager