



October 17, 2019

Mr. Doug Anderson
U.S. Environmental Protection Agency

Re: ENERGY STAR® Window, Doors and Skylights Version 7.0 Discussion Guide

Pella Corporation appreciates this opportunity to review and comment on the V7.0 Discussion Guide (DG) and offers the following for consideration.

Current Market Assessment – Market Share:

Pella acknowledges the high market shares presented in the DG. However, this is not surprising. In our experience, public perception of the ENERGY STAR Program is not aligned with EPA’s objective. As you are well aware, EPA’s intent is for the ENERGY STAR Program to identify and promote “top-of-the-line” products. However, public perception seems to be that ENERGY STAR certification is a minimum expectation, and products that are not ENERGY STAR certified should be avoided. For example, our “big-box” retail partners routinely remind us that they are unwilling to stock any products that are not ENERGY STAR certified. This public perception and resulting market demand drives manufacturers to quickly develop qualifying products and make those products readily available when a criteria revision is implemented. Therefore, market shares will inherently be high.

Further, Pella believes the data as presented is overly aggregated and is therefore not an effective basis for any informed decisions. In particular, we question if the market share is truly that high in each of the four climate zones, as well as in new construction vs. replacement markets. Our experience suggests that market shares may be lower in the Northern zone and in new construction. We ask that EPA consider conducting further studies to determine individual market shares in each of the four climate zones for both new and replacement markets. This “fine-tuned” data will serve as a much more effective basis for decisions on criteria revisions in each zone.

Current Market Assessment – California Title 24:

As indicated in the DG, some climate zones in California will adopt a prescriptive minimum SHGC of 0.23 when 2019 Title 24 is implemented, and this is more stringent than ENERGY STAR V6.0. Pella appreciates that ENERGY STAR is intended to be more stringent than typical energy codes and therefore EPA will likely revise the V7.0 criteria accordingly. However, Pella strongly recommends not setting an SHGC criteria lower than 0.23 in any climate zone. In general, heavily tinted glass is necessary to achieve SHGCs lower than 0.23. This type of glass may be suitable for typical commercial applications, but is often not well received in residential applications.

Current Market Assessment – ENERGY STAR Canada:

Pella appreciates EPA's continued efforts to align the US program with Canada's program, and we encourage EPA to continue considering long-term opportunities for collaboration. However, specific to V7.0, Pella recommends not letting this be a barrier to progress. At this time, it seems the two programs are quite divergent in time-frames, criteria, and guiding principles.

Proposed Methodology – Product Costs:

Pella recommends EPA rely heavily on retail pricing and mystery shopping as the means for determining pricing. In the end, it is the out-of-pocket price paid by consumers that EPA should consider. Of the options mentioned in the DG, retail pricing and mystery shopping is the best way to determine that out-of-pocket price. We further recommend that this be conducted over a broad variety of locations to help understand the geographic diversity of what consumers pay for ENERGY STAR certified products.

Establishing a Minimum SHGC in the Northern Zone:

Pella strongly recommends against establishing a minimum SHGC in the northern zone. In our experience, the use of high solar gain products in cold climates often results in issues with condensation, occupant discomfort, and higher than expected energy bills. Establishing a minimum SHGC in the Northern zone could mislead consumers by suggesting that simply installing high solar gain fenestration represents effective passive solar design. Typical homeowners do not understand that the fenestration is only one of many factors to consider when designing a passive solar home.

Evaluating IECC Zone 5 for the Northern or North-Central Zone:

Pella appreciates EPA's comments in this regard and recommends further consideration of moving IECC Zone 5 to the ENERGY STAR North-Central zone. As indicated in the DG, since Zone 5 has more cooling-degree days than Zones 6-8, Zone 5 may indeed align better with the North-Central zone.

Applying the ENERGY STAR Windows Specification to Full-Lite Sliding Doors:

Pella recommends against applying the windows criteria to sliding doors. V6.0 establishes a clear distinction between windows and doors, and this seems to resonate well with typical consumers. Pella recommends maintaining this distinction in V7.0.

Sunsetting the ENERGY STAR Door Criteria:

Pella recommends against sunseting the door criteria. As indicated above, the current distinction between windows and doors in V6.0 seems to resonate well with consumers. Sunsetting the criteria for some doors and maintaining criteria for other doors will likely be confusing and may even be a source of frustration. It will likely be difficult to explain to a homeowner that a sliding door with certain performance ratings can qualify for a tax credit or utility rebate, but a hinged door with the same (or maybe even better) ratings does not. Also, from a manufacturer's sales & marketing perspective, being able to offer a complete ENERGY STAR certified product package is beneficial. EPA recognized this by recently adding sliding doors to the Most Efficient program. We ask that the same rationale be applied in this case as well.

Dynamic Glazing and Shading:

Pella recommends that EPA continue pursuing the inclusion of dynamic products in the ENERGY STAR program. At present, we acknowledge that market share for these products is low. However dynamic products have a high potential

to be one of the next major contributors to building envelope efficiency. Establishing a means for such products to earn ENERGY STAR certification may promote increased market share sooner.

High Altitude and Impact Resistance:

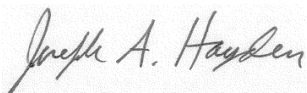
Pella recommends against establishing allowances for high altitude and impact resistant products. While the idea is somewhat intriguing on the surface, it seems that the minimal potential benefit does not justify the added complexity this could bring to effective and accurate product labeling.

Extended Implementation Schedule:

Pella appreciates EPA's willingness to consider an extended implementation schedule and encourages EPA to do so. Additional time between criteria finalization and implementation will be beneficial in completing product redesigns, updating labeling systems, updating literature, training of personnel, etc.

Once again, Pella thanks EPA for the opportunity to comment on the DG. Please don't hesitate to contact me if you have questions or would like to discuss any of this further.

Sincerely,

A handwritten signature in cursive script that reads "Joseph A. Hayden". The signature is written in black ink on a light-colored background.

Joseph A. Hayden
Principal Engineer