



March 28, 2022

Mr. Doug Anderson
Program Manager, ENERGY STAR® for Windows, Doors, and Skylights
U.S. Environmental Protection Agency (EPA)

Re: ENERGY STAR Residential Windows, Doors and Skylights Version 7.0 Draft 2 Specification

Pella Corporation appreciates this opportunity to review and comment on the Version 7.0 Draft 2 Specification and offers the following for consideration.

Proposed U-Factor ≤ 0.25 for all > ½-Lite Doors

Pella appreciates EPA’s decision to apply the same criteria to swinging doors and sliding doors, and we encourage EPA to maintain that decision. As we stated in our comments to Draft 1, we believe consumers will find this approach more intuitive and user friendly. However, we are concerned that applying a U-Factor ≤ 0.25 for all > ½-lite doors in all four climate zones is excessive. For the two northern zones, a U-Factor ≤ 0.25 can be rationalized, but not for the two southern zones. In many cases, triple pane will be needed to meet this limit, and triple pane products are difficult to cost-justify in southern climates.

Pella recommends applying a U-Factor ≤ 0.28 for all > ½-lite doors in the two southern zones. See the chart below. A U-Factor ≤ 0.28 aligns with the Draft 1 proposal for swinging doors. Also, since a similar distinction is already in place for SHGC, this approach should be manageable with minimal additional effort.

Doors			
Glazing Level		U-Factor	SHGC
Opaque		≤ 0.17	No Rating
≤ ½-Lite		≤ 0.23	≤ 0.23
> ½-Lite	Northern & North-Central	≤ 0.25	≤ 0.40
	Southern & South-Central	≤ 0.28	≤ 0.23

Version 7.0 Effective Date

Pella understands that EPA plans for an effective date of 12 months after criteria finalization. Based on the latest schedule, the criteria will likely be finalized in mid-2022, and would therefore become effective in mid-2023. It was stated in the Draft 1 specification that *“EPA recognizes stakeholder interest in a specification transition at the end or beginning of a calendar year and will aim to accommodate this”*. Pella therefore encourages EPA to honor this intent and set an effective date of January 1, 2024 accordingly. Implementing a criteria revision in the middle of a calendar year will be disruptive for industry as that is historically our “busy time” of the year. Also, the additional time will be helpful as we continue to recover from labor and supply chain issues related to the COVID-19 pandemic.

Northern Zone “Islands” in California and North Carolina

Pella appreciates EPA’s decision to revise the climate zone map to eliminate these and other “islands” and we encourage EPA to maintain that decision. As we stated in our comments to Draft 1, these islands would have likely created significant challenges for product distribution and logistics that would have over-shadowed any energy savings benefits.

Proposed Equivalent Energy Performance Paths in the Northern Zone

Pella appreciates that EPA has revised the criteria for the Equivalent Energy Performance Paths in the Northern Zone. However, as we stated in our comments to Draft 1, we remain concerned that EPA has not fully considered all aspects of this proposal. To reiterate, our experience is that the use of high solar gain products in cold climates often results in issues with occupant discomfort, condensation, and higher than expected energy bills. Typical homeowners do not understand that the fenestration is only one of many aspects to consider for an effective passive solar design. While the revisions from Draft 1 to Draft 2 are an improvement, Pella recommends either further limitations, or elimination of the equivalency options all together.

Increased Marketing and Promotion of ENERGY STAR

Pella understands that EPA plans for increased marketing and promotion efforts going forward. As part of that effort, we reiterate our request that EPA re-emphasize the fact that ENERGY STAR is intended to be an aspirational, above-code, voluntary program, and to encourage local code jurisdictions to not adopt ENERGY STAR as their local energy code. We receive occasional, anecdotal feedback that some code jurisdictions have considered doing just that. In fact, there is currently a proposal before the ICC (REPI-31-21 from NEEA) that would largely align the 2024 IECC with the proposed V7.0 criteria. While we understand that EPA has no authority over any code jurisdictions, EPA must acknowledge their significant influence over such decisions. Reassertion of this fundamental message from EPA is appropriate.

Site Energy vs. Source Energy

Pella is concerned over what seems to be a substantial conflict in EPA’s analysis. EPA representatives have stated that it is an ENERGY STAR policy to use **site energy** as the basis for their analyses. However, this seems to directly conflict with [EPA’s ENERGY STAR Portfolio Manager](#) which states *“EPA has determined that **source energy** is the most equitable unit of evaluation for comparing different buildings to each other”*. See the screen shot below. Pella strongly encourages EPA to resolve this conflict in order to protect the credibility and reputation of the ENERGY STAR brand.

The Difference Between Source and Site Energy

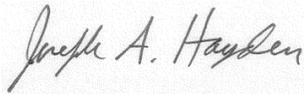
After you've benchmarked your building, you'll see several performance metrics, including source and site EUI (or energy use intensity). What's the difference? And which is used for the 1 – 100 ENERGY STAR score?

EPA Recommends Using Source Energy

EPA has determined that *source energy* is the most equitable unit of evaluation for comparing different buildings to each other. Source energy represents the total amount of raw fuel that is required to operate the building. It incorporates all transmission, delivery, and production losses. By taking *all* energy use into account, the score provides a complete assessment of energy efficiency in a building.

Once again, Pella thanks EPA for the opportunity to comment on Draft 2. Please don't hesitate to contact me if you have questions or would like to discuss anything further.

Sincerely,



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