

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
AIR AND RADIATION

February 14, 2022

Dear ENERGY STAR® Residential Window, Door, and Skylight Partner or Other Interested Stakeholder,

With this letter, the U.S. Environmental Protection Agency (EPA) is pleased to share the ENERGY STAR Version 7.0 Residential Window, Door, and Skylight [Draft 2 Specification](#). EPA encourages stakeholders to provide comments on this draft via email to windows@energystar.gov by **March 28, 2022**. There will be a stakeholder webinar on **March 1, 2022 from 1-3 PM Eastern Time** to discuss this Draft 2 specification. Please register at this [web site](#) if you plan on attending. (See below for full web address).

EPA appreciates stakeholders' feedback on the Draft 1 specification. EPA's responses to stakeholder feedback are reflected in the accompanying [Draft 1 Response to Comment](#) document. Highlights of key changes in the Draft 2 specification are summarized below and are discussed in more detail in the Response to Comments and within the Draft 2 specification. Accompanying this announcement, EPA is providing two (2) data packages ([Results and Assumptions](#); [Savings Data](#)) that provide EPA's updated datasets associated with the Draft 2 analysis.

In response to stakeholder comments on Draft 1, EPA completed considerable additional analysis to develop Draft 2. EPA re-ran and expanded the initial window modeling analysis used for Draft 1 using EnergyPlus Version 9.5. This analysis included more than 600,000 modeling runs to build the "Savings Data Results and Assumptions" tables as well as updated model assumptions and population Census data. This expanded and updated analysis provides EPA with even more confidence that the Draft 2 proposals are reasonable and that the supporting data provide a robust look at the product performance trends in various climates.

Regarding changes to the criteria in Draft 2, EPA is first maintaining the proposed prescriptive window criteria but revising the proposed equivalent energy performance levels based on the updated modeling analysis. Next, EPA is moving the sliding glass (patio) door criteria back with the swinging door criteria and lowering the U-factor for all > ½-lite doors down to a U-factor of ≤ 0.25. There are no changes to the proposed skylight criteria.

Here is a summary of key Draft 2 criteria changes:

- **Windows:** EPA also proposes to revise the 4 equivalent energy performance levels for the Northern Zone to the following levels. These changes are based on an updated energy modeling analysis done in response to comments from stakeholders.

Equivalent Energy Performance for Windows		
Climate Zone	U-Factor ¹	SHGC ²
Northern	0.23	≥ 0.35
	0.24	≥ 0.35
	0.25	≥ 0.40
	0.26	≥ 0.40

¹ Btu/h ft²·°F

² Solar Heat Gain Coefficient

- **Sliding Glass Doors:** EPA proposes changing the criteria for Sliding Glass Doors to have the same criteria as > ½-Lite doors.
- **Swinging Doors:** EPA proposes to move the criteria for sliding glass patio doors back with the swinging door criteria and to lower the U-factor for all > ½-lite doors down to a U-factor of ≤ 0.25. The SHGC levels are not changed from Draft 1.

Energy Efficiency Requirements for Doors			
Glazing Level	U-Factor ¹	SHGC ²	
Opaque	≤ 0.17	No Rating	
≤ ½-Lite	≤ 0.23	≤ 0.23	
> ½-Lite	≤ 0.25	Northern and	≤ 0.40
		North-Central	
		South-Central and Southern	≤ 0.23

¹ Btu/h ft²·°F

² Solar Heat Gain Coefficient

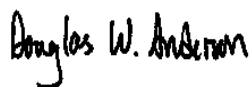
- **Effective Date:** EPA anticipates that Version 7.0 will take effect 12 months after it is finalized.

Schedule:

Stakeholder engagement is vital to the success of the ENERGY STAR program, and EPA looks forward to collaborating with stakeholders to develop the Version 7.0 specification. **Stakeholders are requested to provide comments on the Version 7.0 Draft 2 Specification no later than March 28, 2022.** Please send comments via e-mail to windows@energystar.gov. All comments received will be posted to the ENERGY STAR Residential Window, Door, and Skylight Version 7.0 [Specification Development](#) webpage.

Please contact windows@energystar.gov, myself at anderson.doug@epa.gov, or Brian Booher at BBooher@drintl.com with any questions or concerns about the draft specification. Thank you for your continued support of the ENERGY STAR program.

Sincerely,



Douglas W. Anderson
Product Manager for Windows, Doors, and Skylights
ENERGY STAR Labeled Products

Enclosures:

Response to Comments on Version 7.0 Draft 1 Specification

<https://energystar.gov/sites/default/files/asset/document/Response%20to%20Comments%20on%20Version%207.0%20Draft%201%20Specification.pdf>

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

https://energystar.gov/sites/default/files/asset/document/ES_Residential_WDS_Draft%202_Spec.pdf

Draft 2 Data Package 1a – Results and Assumptions

https://energystar.gov/sites/default/files/asset/document/WDS_V7_Draft%202_Data%201a%20Results%20and%20Assumptions.xlsx

Draft 2 Data Package 1b – Savings Data

https://energystar.gov/sites/default/files/asset/document/WDS_V7_Draft%20_Data%201b%20Savings%20Data.xlsx

Links:

Stakeholder Webinar Registration: <https://register.gotowebinar.com/register/2443004207241538827>

Residential Windows, Doors, and Skylights Partner Page (see “In Development” tab):

https://www.energystar.gov/products/res_windows_doors_skylights/partners