



September 13, 2013

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Re: AGC comments on the Energy Star for Windows, Doors, and Skylights Final Draft Version 6.0 issued July 31, 2013

Dear Doug,

Attached are AGC Glass Company North America's comments to the new Energy Star for Windows, Doors, and Skylights Final Draft Version 6.0 issued on July 31, 2013.

Sincerely,

Jon Hughes
Director Marketing & Programs

cc: Christopher F. Correnti
Vice President, General Counsel and Secretary



**Comments of AGC Glass North America to
Energy Star for Windows, Doors, and Skylights
Final Draft Version 6.0**

AGC Glass North America (AGC) appreciates the opportunity to comment on the Energy Star for Windows, Doors, and Skylights (“Energy Star” or “U.S. Energy Star”) Final Draft Version 6.0 issued July 31, 2013 (“Final Draft” or “Final Draft Criteria”).

AGC Supports Adoption of the Final Draft.

AGC applauds EPA for the open and collaborative process by which it conducted this criteria development. While the criteria does not wholly adopt any one stakeholder or group of stakeholders’ suggestions, AGC believes that the EPA heard all sides, offered thorough responses to questions from stakeholders, and ultimately drafted criteria which represents a compromise of the various stakeholder suggestions, while achieving the Energy Star goals of driving down energy consumption and reducing green house gas emissions related to home energy use.

AGC continues to support a 0.25 U-factor in the Northern Zone in order to achieve greater energy savings. However, it recognizes that the 0.27 prescriptive U-factor included in the Final Draft is a significant movement toward increased stringency and appreciates the EPA’s efforts to forge a compromise between stakeholders advocating greater energy efficiency (0.25 U-factor) and those supporting a far less stringent U-factor (0.29 U-factor).

The Final Draft criteria rejects comments calling on EPA to forego any meaningful stringency increase in the Northern Zone. Several stakeholders asked EPA to make only a token change to Northern U-factor, namely, changing it from 0.30 to no lower than 0.29. AGC accepts EPA’s decision to set the Northern Zone U-factor at 0.27 for the following reasons:

First, a nominal prescriptive U-factor change from 0.30 to 0.29 would be virtually meaningless, if not misleading, to consumers. It would not result in any meaningful reduction in energy consumption, either in the aggregate or for individual consumers using Energy Star labeled windows in the Northern Climate Zone.

Second, Northern Zone stringency has lagged far behind all other Energy Star climate zones for the last 15 years. Comparing Energy Star’s 1998 Northern Zone criteria to its 2012 criteria reveals only a 14.3% increase in stringency, whereas the South-Central Zone increased U-factor stringency by 53.4% and the Southern and North-Central Zones each increased U-factor stringency by 20% over the same period.

In the Final Draft, U-factor stringency in the Southern Zone will realize a 46.7% increase over Energy Star’s 1998 criteria while the Northern Zone will experience a 22.9% increase in stringency. For the Northern Zone, this is clearly a step in the right direction. Anything less would be inconsistent with actions taken by Energy Star in

other climate zones, which would, in turn, be unfair to Northern Zone consumers.

Third, according to the NFRC Independent Verification Program, the accepted U-factor performance tolerance for an Energy Star labeled window is 10%. As applied to the current 2012 Energy Star prescriptive U-factor criteria of 0.30 in the Northern Zone, this performance tolerance means that a Northern window could actually have an acceptable, tested U-factor ranging from 0.27 to 0.33. Viewed in this context, a proposed reduction in Northern U-factor from 0.30 to no lower than 0.29 is meaningless.

Fourth, the Canadian Energy Star Program (NRCan) has already announced that, effective February 1, 2015, it will require a 0.25 prescriptive U-factor in its most populated Climate Zone 2, which overlaps much of U.S. Energy Star's Northern Zone. Canada's decision to adopt a 0.25 prescriptive U-factor in essentially the same climate zone as the U.S. Energy Star's Northern Zone is strong evidence that a less stringent, 0.27 U-factor in the U.S. is more than adequately justified. Moreover, specifying a prescriptive 0.25 U-factor in NRCan's Energy Star Zone 2 virtually assures adequate product availability to meet the less stringent, 0.27 U-factor criteria in the United States. In that regard, any window meeting the 0.25 U-factor prescribed for Zone 2 by the Energy Star Program in Canada will also qualify for an Energy Star label in the U.S. Energy Star's Northern Zone.

Finally, requests that the Northern U-factor be "no lower" than 0.29 are built on an underlying, yet unstated, assumption that, under the Final Draft, windows with a 0.29 U-factor will not qualify for an Energy Star label in the Northern Zone. However, under the Final Draft, a window labeled with a 0.29 U-factor will qualify for an Energy Star label, so long as it delivers equivalent energy performance by having an SHGC \geq 0.37. In short, given the flexibility provided by the multiple trade-offs included in the Final Draft criteria, there, simply, is no need, or basis, upon which to limit the prescriptive Northern U-factor to 0.29.

In support of the multiple trade-offs included in the Northern Zone, one stakeholder noted that: "This will allow manufacturers to offer even more viable product options to the market-place."¹ As noted above, with an appropriate SHGC, windows with a 0.29 U-factor are fully eligible for an Energy Star label in the Northern Zone. Given the increased number of viable product options added to the market-place by Northern trade-offs in the Final Draft, there is no reason, whether technical or economic, to limit the prescriptive U-factor in the North to 0.29.

AGC supports the inclusion of multiple trade-offs to the prescriptive factor specification in the Northern Zone, because it helps to ensure that products that deliver equivalent energy performance will have equal access to the Energy Star label. AGC believes this will benefit both window manufacturers and consumers by providing more options for replacing single pane and other inefficient windows currently found in homes with far more efficient Energy Star labeled windows.

¹ Pella Corporation comment to the Draft 2 criteria, paragraph 1, February 8, 2013.

The Final Draft Criteria is also fair to window manufacturers because it moves the effective date to 2015. EPA has responded favorably and fairly to a number of manufacturers that have asked for more time to comply with the new specifications set out in the Final Draft.

IV. Conclusion

No code, standard or criteria can guarantee that all participants will get everything they want. The Final Draft is no different. A number of stakeholders, including AGC, sought a 0.25 prescriptive U-factor in the Northern Zone. Others sought a U-factor no lower than 0.29. EPA struck a fair balance between competing positions by setting the prescriptive U-factor in the North at 0.27 and providing equivalent energy performance trade-offs that allow higher SHGC windows with 0.28, 0.29 and 0.30 U-factors to bear the Energy Star label. Importantly, EPA struck this balance in transparent and collaborative proceedings where everyone has numerous opportunities to be fully heard.

Lowering the prescriptive U-factor in the north to 0.27 is an important step necessary to ensure that Energy Star Version 6 will benefit northern consumers. Adding trade-offs ensures that the Final Draft Criteria is product neutral and fair and that multiple paths exist for manufacturers to comply with the new, more stringent criteria. It will also ensure that a robust variety of products, all delivering equivalent energy performance, will be available in the market-place.

AGC Glass Company North America continues to support a 0.25 U-factor in the Northern Zone. However, the ≤ 0.27 U-factor selected by EPA for the Final Draft is clearly a step in the right direction and a sensible compromise between the 0.29 and 0.25 prescriptive U-factors sought by various stakeholders.

The fact that Canada's Energy Star Program is adopting a prescriptive 0.25 U-factor in its most populated zone, a climate zone that significantly overlaps with the northern zone of the U.S., establishes not only that a 0.27 prescriptive U-factor is technically feasible, but is also environmentally and economically sound and desirable. When Canada's Energy Star revisions take effect on February 1, 2015, it will virtually assure that Energy Star labeled windows with a less stringent ≤ 0.27 U-factor will be readily available throughout the Northern Zone of the U.S.

Numerous stakeholders have asked that the effective date of Version 6 be extended. In response, EPA has honored that request in an effort to ensure that all manufacturers have time to meet or exceed the specifications set out in the Final Draft.

AGC supports the Energy Star for Windows, Doors, and Skylights final draft Version 6.0 and looks forward to working with the EPA on its implementation.