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To: [richard.karney@ee.doe.gov](mailto:richard.karney@ee.doe.gov)  
Sent: 03/27/2003 05:04 PM

Subject: Energy Star Proposal

Richard,

Thank you for the opportunity to comment on the proposed Energy Star program. The first proposal of the two is very similar to the proposal in 2002. The main difference is that the 2002 proposal had a U-factor requirement in the south of 0.75 while the current proposal has a U-factor requirement of 0.65 or less. Kawneer Company was not in favor of the proposal last year and likewise we cannot support the current proposals either.

The issue remains the low U-factors that are required in the southern area of the central zone. It is well known that most thermally broken aluminum windows with the highest performing double glazing will not achieve a 0.40 U-factor or better at the current NFRC window sizes. In the new proposed map, much of the US requires a 0.40 or better U-factor even in the desert Southwest. In these areas, homeowners will be forced to select vinyl, wood or some other composite material as their window frame material. Many of these materials do not perform well in these high solar-exposure climates. It has been documented that window surface temperatures can exceed 170 deg. on vinyl when placed in climates such as Phoenix AZ or Fresno CA. The heat distortion temperature for vinyl is lower than these temperatures resulting in possible frame and sash distortions and permanent damage to the window. Aluminum has historically been the best-suited material for these climates. Adopting the current proposed Energy Star requirements will certainly discourage the use of aluminum in these areas while encouraging a material that is not as well suited for the climate.

As a remedy to this situation, I would offer the suggestion to increase the HDD in the southern zone from < 2000 HDD to < 3499 HDD. Likewise, the proposed central zone area would be reduced to cover 4000 HDD-5999 HDD. This map would then resemble the current Energy Star map. To offset any increase in energy consumption, I would suggest that the SHGC be reduced to 0.35 in the southern zone. This change would allow the continued use of aluminum windows in the Southern and Southwestern United States while placing more emphasis on solar heat gain.

Again, thanks you for the opportunity to comment on the proposal.

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