INTERNATIONAL
WINDOW FILM
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November 11, 2008

Mr. Richard H. Karney
ENERGY STAR Program Manager
United States Department of Energy
1000 Independence Ave, SW
Washington, DC 20585-0121

RE: EnergyStar Program for Window, Doors and Skylights-Proposed Revisions

Dear Mr. Karney:

We write to you on behalf of the membership of the International Window Film Association which includes installing dealers, distributors, and manufacturers of window film products, including those for energy management. The public sharing of the extraordinary amount of data gathered and the extensive research and projections done by the Department and its laboratories and consultants is much appreciated. Further, we much appreciate the opportunity to have our input considered as part of your decision-making process moving forward.

The issues with which we have the most concern are in the lack of tradeoffs in some zones; automatic assumption of tradeoff limits already contained in the IECC for use in the EnergyStar Program; possible consumer lack of acceptance of window choices available to them under the Program, especially in zones 1-3; the use of increased market valuation of homes as part of payback analyses: and the negative impact on research and development efforts for new, but different, types of products for the future.

In ES5 and ES4, the energy equivalence tradeoff values calculated were -0.01U=+0.05 SHGC and -.01U=+0.08SHGC, respectively, for Phase II of the proposed Program changes. There is no statistical reason to believe that a similar relationship does not exist in Phase I nor should we assume that some tradeoff of at least that found in ES4 of Phase II, or greater, would not also exist in ES3, ES2, and ES1. If we assume the foregoing statement is true, then many more product choices and price ranges to achieve the same or greater energy efficiency would exist for consumers if tradeoffs were allowed in all ES zones. Since the EnergyStar Program has much more analysis available on which to make its decisions, we believe that the Program should consider all possible tradeoff scenarios within all of the ES zones and not be limited to some arbitrary limits which now exist in the IECC and which were decided with less sophisticated analyses than these currently employed in the EnergyStar Program.

From consumer focus group studies done within our industry in past years as well as consumer perception of the amount of acceptable "shine" or reflectance of glass as well as acceptable levels of visible light transmittance through windows for viewing, both daytime and nighttime, into or out of a window and for reading or other tasks requiring visual acuity, some general guidelines for consumer acceptability of our products (when installed on different glass/window combinations) have emerged. Generally, we find that any glazing with less than a 35-40% visible light transmittance is considered too dark for most residential applications, but especially in the higher end markets. Some of this same opinion can be deduced from the sunglass industry, where sunglasses generally range from 10%-30%, or an average of 20% visible light transmittance. It would be hard to imagine that a consumer would be happy wearing sunglasses 24 hours per day to function in a home with clear windows, even in the brightest of rooms at peak of daylight. In addition, we have found that somewhere above 12-14% visible light reflectance, a glazing is seen as "shiny" to a consumer and, in most cases, less preferable than a product with less "shine" even if there is some loss in energy efficiency. For these reasons, we believe that the only windows which meet the proposed criteria for ES1 and ES2 in both phases likely push this technological limit, which may drastically impact the acceptance of EnergyStar windows in the replacement markets there (ES1 of 0.25 SHGC and 0.20 SHGC for Phases I and II, respectively, will definitely find objections). Allowance of tradeoffs in these zones could add a few alternate choices for consumers, but only a few. We realize that the goal of EnergyStar is to move the market to the "best of the best" in a product category, but consumer acceptance of the visual properties of some of these product will either limit the use of EnergyStar windows in these zones for replacement windows or severely limit consumer sources for acceptable products.

To use some projected increase in market valuation of a home based on it having EnergyStar labeled windows as a part of payback analysis is being overly creative to justify a cost differential. Any such analysis much be based on the full cost of removing the old windows, purchasing and installing the new windows, and then using a discount formula for the value of the windows based on the actual value of any warranty replacement value. Many of the EnergyStar window warranties we have reviewed are for some pro rata value of the window itself (not counting removal of the old window and reinstallation of the new window). This means that there would have to be some discounting method for determining actual window value in the future, or balance of expected full energy life. The change to requiring IGU certification for all EnergyStar windows is a step in the right direction, but still does not justify using anything other than realistic projected energy savings over the expected energy life (not physical life) of the window for payback analysis.

Lastly, whenever programs dictate specification limits for products rather than stating minimal performance criteria desired, a public cost is incurred. Research and development by companies with products which meet one specification (like U value) but not another (like SHGC) is thwarted even if those particular alternative products might give greater total energy savings than some other product which barely meets both criteria. When the General Service Administration set criteria for blast hazard mitigation, it did not set product standards. Instead, it developed a performance criteria level and left

it to the marketplace to come up with all the variations which could meet that performance. Today, there are glass, film, polycarbonate, drapery, framing, latch, catch bar, and design solutions, many of which use a multiplicity of these different categories to come up with the highest performance solution at the most reasonable price for a customer. And all these industries have spent millions and millions of their own dollars doing the research and development to meet the stated performance criteria. By setting product specifications instead of performance criteria (which can be achieved by allowing tradeoffs for equivalent total performance), much industry incentive to spend more on further development or "near-miss" products is removed. What better results can the public get than to have industry paying for the development of new products to give them more choices in purchasing products with the guidance of an EnergyStar label. We would urge you to consider having proven performance tradeoffs, with little to no limits, for the EnergyStar Program.

Thank you and your staff and LBNL again for the hard work and effort in making this a very open process where we can all work collectively for the good of the public. Hopefully, the decisions made as a result will have maximum benefit in our common goal of increasing energy efficiency.

Regards,

Darrell L. Smith
Executive Director