



BIRCH POINT
Consulting

August 31, 2017

Doug Anderson
Program Manager, ENERGY STAR for Exterior and Interior Storm Windows
U.S. Environmental Protection Agency

Doug,

I am writing in full support of the proposed ENERGY STAR® program and specification for Exterior and Interior Storm Windows. As you know, I have been involved in the development, research, and advancement of low-e storm windows for well over a decade. This includes serving as the project manager for a DOE funded demonstration project on low-e retrofits in existing buildings, providing technical support for DOE Building America research on low-e storm windows at Pacific Northwest National Laboratory, interacting with state weatherization and utility programs, serving as a board member at both NFRC and AERC, and working directly with low-e storm window manufacturers.

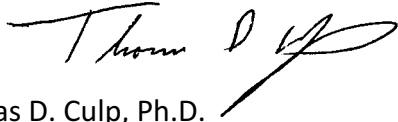
Low-e storm windows and panels have been proven to be an effective and economic tool for upgrading the energy efficiency of existing buildings, filling the gap where homeowners cannot or will not replace their windows due to historical restrictions or income limitations. Therefore, it is very rewarding to see this program move forward to address existing buildings and help consumers identify energy efficient solutions.

In reviewing the proposed specification, I agree with the conclusions of the analysis report and fully support the proposed metrics, test methods, and performance levels. The proposed test methods and requirements will appropriately differentiate modern low-e storm windows from less efficient products while being cost effective and easy to verify, ultimately leading to significant consumer benefits and energy savings.

I did have one minor correction to the proposed Consumer Checklist. In the last bullet point regarding the use of low-e storm windows in extremely hot locations, where it says “If you already have double pane or low-e coated windows ...”, the “or” is incorrect and implies there is a potential concern with double pane clear glass windows. The previous temperature analysis showed there is no concern with the use of low-e storm windows over double pane clear windows in hot climates. The potential to trap heat is more over new windows that include solar selective low-e (e.g. double and triple silver low-e), although only in extremely hot locations under certain conditions as pointed out in the previous sentence. Of course, this would be unusual scenario anyway – why would someone who purchased a new low-e window then also put on a low-e storm window, especially in hot climates? Nonetheless, it is reasonable to keep the bullet point on the Consumer Checklist, just modified to read “If you already have low-e coated primary windows ...”.

Thank you again for the opportunity to comment, and please let me know if you have any questions. I remain very positive and supportive of the proposed program, and am eager to see it begin.

Best regards,

A handwritten signature in black ink, appearing to read "Thomas D. Culp". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Thomas D. Culp, Ph.D.
Birch Point Consulting LLC