

Introduction to Response to Comments

ENERGY STAR® for Windows, Doors, and Skylights Version 6.0 Criteria Revision

During the comment period for the ENERGY STAR® Windows, Doors, and Skylights Draft 2 Version 6.0 Specification, EPA received comments on a wide range of topics including specific technical issues, the fenestration marketplace, the specification review process, and broader policy issues. This document addresses several of the broader policy and process questions to respond more fully to commenter concerns.

The residential window, door, and skylight market has made significant advances in product performance with the help of ENERGY STAR, tax credits, and advancements in the International Energy Conservation Code (IECC). EPA begins each specification revision with technical and market analysis. EPA completed this evaluation and presented documentation supporting a specification revision in the *Draft 1 Criteria and Analysis Report*. EPA used the same analytic approach as was used in the previous criteria revision, while using more robust product availability and product cost datasets to provide greater confidence in the evaluation results.

Some stakeholders have expressed concerns that EPA's approach to setting the proposed specification was not in line with the *ENERGY STAR® Products Program Strategic Vision and Guiding Principles* (released May 2012). EPA strongly believes that its approach is fully consistent with these guiding principles. The *Strategic Vision and Guiding Principles* state that:

“In establishing or revising an ENERGY STAR product performance specification, EPA employs a set of six key principles. It is important to note that these principles are not applied as a strict checklist per se. The ultimate viability and environmental impact of an ENERGY STAR specification in the marketplace depends upon many factors. The principles are used as guidance during an iterative process to achieve the desired balance among the principles, using the best available market information. The success of a specification can be more reasonably assured through the application of these principles.”

In line with these principles, EPA considered factors such as market share, building codes, product availability, technological advancements, and cost effectiveness (payback) to find the optimal balance during the development of the Version 6.0 specification.

- **Market Share:** Consistent with the guiding principles, EPA uses market share as a prompt that a specification revision may be needed. High market share, in combination with technological advancements and the latest updates to the national model code, prompted the revision now in process. EPA routinely revises its ENERGY STAR specifications when market share is high or when other drivers are present to ensure that the mark remains a helpful tool for consumers.
- **Change in Building Codes:** The ENERGY STAR mark is intended to direct consumers to products with superior energy performance. As such, the ENERGY STAR mark must be associated only with products that exceed minimum requirements, such as federal standards and building codes. If the code approaches or surpasses the ENERGY STAR specification, as is the case with the current specification in some regions, EPA strives to meet or exceed that code while also taking into consideration other indicators to ensure the right balance for the program. EPA's proposal meets or exceeds current national model code to ensure that the ENERGY STAR mark remains a symbol of superior efficiency.

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- **Product Availability and Technological Advancements:** To research what products were currently available in the market, EPA developed a Products Available for Sale Database of more than 17,000 products by collecting product data from the websites of the top 20 manufacturers (by revenue). This database was used to analyze the performance levels of products available for sale. Based on this analysis, EPA found products available for sale with performance levels that already meet the proposed specification levels. For comparison purposes, EPA also studied the National Fenestration Rating Council Certified Products Directory (CPD), which provided critical insight into technologically advanced products that manufacturers *may* be able make in the future. The comparison of the CPD to the Products Available for Sale Database was extremely useful when trying to understand what products *might* be available once the revised specification takes effect. In addition to analyzing these two databases, EPA reviewed and discussed current technological advancements with product manufacturers, component manufacturers, and testing organizations to confirm availability and performance. Finally, there is historical evidence (see Figure 1 of the *Version 6.0 Draft 1 Criteria and Analysis Report* released in July 2012) that shows ENERGY STAR market share for windows has remained strong after previous criteria revisions. Based on this data and research, EPA believes that consumers will have a wide selection of ENERGY STAR certified products from numerous manufacturers at the time of implementation.
- **Cost Effectiveness (Payback):** During the specification review process, EPA offered ENERGY STAR stakeholders the opportunity to voluntarily provide incremental product cost data confidentially. The volunteered data was used to calculate payback, which is the primary metric used by EPA to evaluate cost effectiveness. As noted in the *ENERGY STAR® Products Program Strategic Vision and Guiding Principles*, EPA considers payback to be reasonable when it is within the lifetime of the product. EPA found in its analysis that payback across nearly all cities meets this goal. More information about this payback analysis is included in the *Review of Cost Effectiveness Analysis* released in conjunction with this document. In that document, EPA also provides the results of its expanded payback analysis, which focuses on low- and average-cost products. EPA found payback periods of less than 10 years for low- and average-cost products across most of the cities for which EPA performed energy savings analysis.

EPA has proposed ENERGY STAR Window, Door, and Skylight criteria that will differentiate products that are more energy efficient for consumers, delivering substantial national savings. The proposed new criteria will meet or exceed the most recent model code and allow consumers to recoup upfront incremental cost within the life of their products and in shorter periods (less than 10 years) for many low- and average-cost products.