



## GE Appliances & Lighting

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August 11, 2011

Via E-Mail

Amanda Stevens  
U.S. Environmental Protection Agency  
ENERGY STAR Appliance Program  
[appliances@energystar.gov](mailto:appliances@energystar.gov)  
cc: Ryan Fogle, [rfogle@drintl.com](mailto:rfogle@drintl.com)

Re: ENERGY STAR Program Residential Refrigerators and Freezers Version 5.0  
Specification Framework Document

Dear Ms. Stevens:

GE is pleased to submit these comments regarding the Environmental Protection Agency's ("EPA" or the "Agency") ENERGY STAR Program Residential Refrigerators and Freezers Version 5.0 Specification Framework Document. GE is a long-term supporter of the ENERGY STAR Program having been a partner since 1991. And, for the last six years the ENERGY STAR Program has awarded the Sustained Excellence award to GE.

GE is a member of the Association of Home Appliance Manufacturers ("AHAM"), which represents industry members who produce and market appliances in the U.S. GE joins in the August 8 comments filed by AHAM and incorporates them into these comments. GE does, however, have additional comments for the Agency's consideration as it begins to draft the specification requirements. Those comments are set forth below.

### **I. EPA should adopt a requirement that qualified refrigerators must use low-GWP foam-blowing agents.**

EPA has announced that it is considering specifying that ENERGY STAR qualified refrigerators be manufactured with low GWP foam blowing agents with Global Warming Potential (GWP) equal to or less than 25 and seeks stakeholder comments on this proposal. According to the framework document, EPA's "...research showed that for products that contain refrigerants and foam-blowing agents with high global warming potential (GWP), the GHG emissions associated with the end-of-life (EOL) and manufacturing phases are relatively significant relative to the total emissions from the use phase."

Perhaps anticipating that opponents would argue that low GWP gases are in short supply, EPA researched availability and determined that such foam-blowing agents are readily available. GE's own analysis supports this conclusion, which was critical to the decision GE made to switch to low GWP gases.

GE urges EPA to adopt the requirement that qualified refrigerators use low-GWP foam-blowing agents. The adverse environmental impact associated with use of HFCs and other high GWP gases is well documented and undeniable. In fact, cyclopentane (CP), the foam-blowing agent that GE has selected, has a GWP of about 10, or 100 times lower than HFC-245fa (1,030 GWP) and 140 times lower than HFC-134a (1430 GWP), both widely used industry alternatives. These data led GE to retrofit its existing and to install in its new U.S. refrigeration manufacturing plants, equipment that uses CP as the foam-blowing agent.

Adopting a requirement that ENERGY STAR qualified refrigerators use CP or other low GWP foam-blowing agents would significantly reduce end-of-life greenhouse gases, which, according to EPA's research, accounts for the majority of the GHG emissions.

## **II. EPA should investigate providing additional meaningful information to consumers regarding the environmental impact of their refrigerators.**

Requiring ENERGY STAR refrigerators to use only low GWP foam-blowing agents is a powerful way not only to make consumers aware of the ENERGY STAR Program's commitment to reducing adverse product environmental impact, it would actually reduce greenhouse gas emissions.

But EPA should go further to inform consumers of the impact on the environment of using these products. As noted in AHAM's comments, the industry opposes collapsing refrigerator product categories into three size ranges, irrespective of configuration, and setting maximum allowable annual energy use as a linear function of adjusted volume. Instead, the industry urges EPA to retain the proven approach of setting a percentage increase above the minimum efficiency standard for qualified products.

However, additional and meaningful information about the impact of product size can and should be provided to consumers thereby allowing them to make informed choices about the product's carbon footprint. Providing such additional information will, no doubt, require additional EPA investigation. Fortunately, by adopting the framework approach to determine the product specifications for ENERGY STAR refrigerators, EPA has opened the

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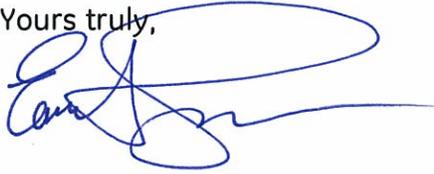
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door tor more creative solutions for providing meaningful information to consumers. GE urges the Agency to continue to explore these options.

Please let me know if you have any questions or want any additional information.

Yours truly,

A handwritten signature in blue ink, appearing to be "Amanda Stevens", written in a cursive style.