

To: The U.S. Environmental Protection Agency Energy Star Program

From: Durwood Zaelke, President IGSD; Charles K. Ebinger, Director Energy Security Initiative Brookings Institute; Alexander von Bismark, Executive Director Environmental Investigation Agency

Date: August 10, 2011

Re: Stakeholder Comments on Residential Refrigerators and Freezers Version 5.0 Specification Framework Document (2011)

The undersigned groups thank the U.S. Environmental Protection Agency for this opportunity to provide comments on the Energy Star RESIDENTIAL REFRIGERATORS AND FREEZERS VERSION 5.0 (2011) SPECIFICATION FRAMEWORK DOCUMENT. We support the proposal of EPA to more effectively designate top performers and we specifically support conspicuous designation of the "TOP RUNNERS" within each DOE product category and that all Energy Star Refrigerators be constructed exclusively with low-GWP chemicals.

We further support:

- Increasing the stringency of the criteria from 20% less energy than the minimum standard to 25% of the minimum standard.
- Create of a designation of "TOP RUNNERS" within each product category modeled off the successful Japanese [Top Runners program](#). One or more models in each category can be designated a TOP RUNNER if they achieve energy efficiency within 5% of the model with the highest energy efficiency in that category.
- Eliminating the adjustment for bottom freezer and side-by-side door configurations that allowed these appliances to qualify as Energy Star with higher energy use per volume of interior space than top freezer and single door models.
- Requiring that refrigerators use foam made with low-GWP chemicals (<GWP 25).
- Require low GWP refrigerants (GWP<150) by January 1, 2014 or 24 months after the introduction of the first such products in each DOE product class, whichever date is later.
- Establish Smart Grid Functionality based on food safety parameters. We suggest that the functionality include delay in defrosting and ice making as proposed, but allow delay or reduction of load for as long as the refrigerated food remains at safe temperatures and the frozen food remains below the temperature to preserve the quality of the most vulnerable foods (likely ice cream). We also suggest that EPA anticipate incorporating an adjustment in energy use rating reflecting refrigerators that can sustain food quality for longer periods of time due to superior thermal insulation, gaskets, and other engineered design advantages. The

justification is that these refrigerators will allow electric utilities to better manage the grid for low emissions and economy.

Other comments:

We also suggest you re-label Figure 1 to read as “Climate Forcing of a Residential Refrigerator” or “CO<sub>2</sub> Equivalent of a Residential Refrigerator” rather than “Estimated Global Warming Potential of a Residential Refrigerator” and also re-label the bars.

Thank you,

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Development

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