



American Council for an Energy-Efficient Economy

WASHINGTON, DC

June 28, 2007

Rachel Schmeltz
ENERGY STAR Product Manager
U.S. Environmental Protection Agency
Office of Air and Radiation
Ariel Rios Building 6202J
1200 Pennsylvania Avenue NW
Washington, DC 20460

Dear Ms. Schmeltz,

The American Council for an Energy-Efficient Economy (ACEEE) is a nonprofit, non-partisan, organization dedicated to advancing energy efficiency as a means of promoting both economic prosperity and environmental protection. ACEEE fulfills its mission by conducting in-depth technical and policy assessments; advising policymakers and program managers; working collaboratively with businesses, public interest groups, and other organizations; publishing books, conference proceedings, and reports; organizing conferences and workshops; and educating consumers and businesses.

In general, ACEEE supports ENERGY STAR draft. This letter addresses two points that we believe require some elaboration:

I. On “Savings on a National Average Basis”

By their nature, furnaces and boilers, like air conditioners and heat pumps, are climate-sensitive products. Condensing furnaces were developed as a high-efficiency product for cold regions, where they are highly cost-effective. Sales continue to be concentrated in colder regions. However, they are expanding in more moderate regions as the price of natural gas rises and the incremental cost of the 90% product comes down.

There cannot be an expectation that ENERGY STAR furnaces will be as cost-effective in Mississippi as in Minnesota, or deliver as much economic value in South Carolina as in South Dakota. For climate-sensitive equipment, ACEEE would be very concerned if ENERGY STAR were to change its current analytical processes in ways that would give significant weight to regions in which these products have tiny market share, are not generally marketed, and indeed may not be cost-effective.

We're not quite sure what “savings on a national average basis” means, but ACEEE sees potential for harm if ENERGY STAR's analysis of this climate-sensitive product were to include states with very low heating demand. We certainly do not recall comparable tests for cost-effectiveness of air-conditioning equipment.

If a cost-effectiveness test must be done, it would be much better to exclude such states, or to base it on the weighted average sales of condensing furnaces by state, with state average natural gas price and weather data.

II. ENERGY STAR on Electricity Use.

Paragraph 2 of the Text Box on page 4 of *2007 Furnace V2.1 Draft 1 spec.pdf* seems to be inverted: ENERGY STAR writes, “Many stakeholders shared a concern that while some regions of the U.S. may benefit from furnace fan efficiency (cooling-dominated), others may not (heating-dominated).” In the literature, Energy Center of Wisconsin’s 31-house field study gave electricity savings estimates in rather close agreement with those estimated from Eae; while a simulation by LBL of performance in the Central Valley of California found low savings in cooling seasons savings there. The best argument for postponing the incorporation of air handler performance in the ENERGY STAR specification is that we don’t yet have good understanding of these variations. ACEEE thus agrees with ENERGY STAR in supporting postponement, but we also urge acceleration of field studies.

Thank you for your consideration.

Harvey M. Sachs
Director, Buildings Program
American Council for an Energy-Efficient Economy