



GE Appliances & Lighting

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Abigail Daken
ENERGY STAR Water Heater Program Manager
U.S. Environmental Protection Agency
Waterheaters@energystar.gov

Re: ENERGY STAR Version 2.0 Water Heaters specification development

Dear Ms. Daken,

GE is pleased to submit these comments regarding the Environmental Protection Agency's ("EPA" or the "Agency") ENERGY STAR Program draft 2.0 water heaters specification development process. GE played a critical role in establishing the water heater ENERGY STAR program and introduced the program's first qualified heat pump water heater. GE continues to support the efforts to develop ENERGY STAR criteria for hot water heaters. The program has helped fuel the market for highly efficient domestic water heaters. GE, a multi-year recipient of the ENERGY STAR Sustained Excellence award, has a long history of innovation and in the development of energy efficient products.

Energy-efficient water heaters deliver substantial energy and cost savings to American consumers. With its long history of innovation and energy efficient product development, GE takes seriously its responsibility to advise EPA how planned ENERGY STAR Program activities will enhance and detract from our shared goals. As pointed out below, the 2.0 draft specifications do both. GE urges ENERGY STAR to stay the course with some aspects of the program but to abandon the rest.

I. Promoting a Technology Neutral Approach has significant potential to confuse consumers.

While most advanced water heater technologies offer great opportunities to reduce energy usage, fuel source is the principal basis for consumer purchase decisions. With the fuel source determined, giving consumers the impression that all technologies are equally suitable is misleading. As an example, placing electric tankless water heaters, whole-home or point-of-use, in the same product category as electric heat pump water heaters would convey to consumers that both product types are equally suitable as replacement for the conventional storage tank water heaters when, in fact, only the electric heat pump

version could occupy the same footprint. The reason is the significant differences in installation requirements and costs due principally to new piping systems.

Replacement sales constitute approximately 90% of water heater sales. If done—and, as noted above GE does not believe it can be done for tank and tankless products-- aggregating various technologies into the same product categories will only cause mischief if practical replacement considerations are not taken into account.

II. Revisions to Existing Product Categories.

Most Advanced water heater technologies are delivering on the promise of reducing the energy usage required to supply domestic hot water. By creating reasonable ENERGY STAR criteria, new designs will be introduced. But, as the market is still in its infancy, EPA must be careful not to put up inadvertent barriers to market development.

a. Heat Pump Water Heaters

Like EPA, GE is not aware of any opportunities or issues in this category. Thanks to ENERGY STAR's creation of the category in 2008, growth has been steady as consumers have realized operating cost savings and ease of installation.

b. Add-on Heat Pump Water Heaters

GE opposes adding these products to the ENERGY STAR Program. GE disputes the manufacturers' claims of increased reliability cited in EPA's specification development document. But, accepting for discussion purposes, installing these add-on devices *reduces* the reliability of the host water heater. Even worse, adding this device will generally *void* the warranty on the host water heater. (This is not unique to water heaters: Manufacturer's warranties on most products are typically voided if the product is altered in any way.)

The add-on device is ideal for DIY installation. Indeed, the manufacturers promote the product to the do-it-yourself market. (See AirTap's installation video loaded onto YouTube: <http://www.youtube.com/watch?v=adma7HnXCUI&NR=1>.) The complexity of the product assembly and installation procedure will lead to great variation in performance, which consumers may not even notice for some time. It's difficult to think of a greater threat to ENERGY STAR's brand than voided warranties, finger-pointing by manufacturers that leaves consumers holding the repair-cost bag and botched installations.

The leading manufacturers of these products do not provide warranties comparable to the 6-year minimum tank and parts warranty required by the EPA for integrated heat pump water heaters. It is patently unfair to hold manufacturers of unitary heat pump systems to greater warranty obligations than manufacturers of add-on devices.

Finally, if EPA decides to risk ENERGY STAR's reputation on these untested devices, the agency should not include them in the water heater program. They are not water heaters. They are ancillary energy efficiency devices, of which, no doubt,

there are many others, all of which could be collected into a new ENERGY STAR product category. But the manufacturers of heat pump water heaters, which are still developing a market, must not be burdened with the problems that these untested devices will leave in their wake.

c. Point-of-use Electric Tankless Water Heaters

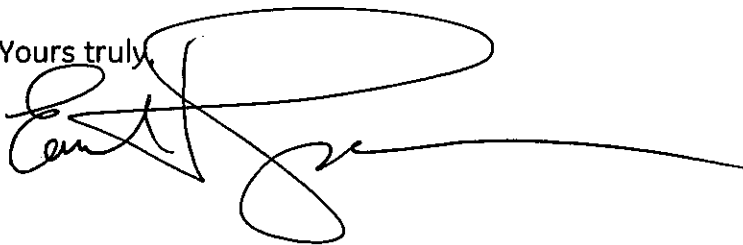
GE urges the Agency not to include point-of-use ("POU") tankless water heaters in the ENERGY STAR Program for a very simple reason. ENERGY STAR is designed to promote *products*, the technology of which, makes them superior in energy efficiency. That is not the case with POU systems. Their efficiency claims are based solely on location of installation, not technology. Moreover, no test procedure can accurately measure the efficiency of a multiple-unit POU system with numerous pipes of varying lengths. In the absence of a repeatable test procedure that would include distribution efficiency, EPA should not include this product in the ENERGY STAR Program.

III. Conclusion.

For all the above reasons, GE urges EPA to continue the heat pump program as currently designed. We also recommend that the Agency not pursue a technology neutral approach—at least for tank water heaters—and not to create an ENERGY STAR categories for add-on heat pumps and POU tankless products.

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

Yours truly,

A handwritten signature in black ink, appearing to be "E. J. ...", written over a horizontal line. The signature is stylized and cursive.