



William T. Harrigill
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November 28, 2007

Mr. Richard Karney
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

Subject: Energy Star Residential Water Heaters:
Second Draft Criteria Analysis and Proposal

Dear Mr. Karney,

On behalf of Rheem Water Heating we continue to support the DOE's efforts to develop an Energy Star program for residential water heaters, where such a program will certainly help our country make better use of energy resources and serve to protect the environment through the use of energy efficient products. As a follow-up to the October 26, 2007 publication of the Second Draft Criteria Analysis and Proposal, Rheem wishes to submit the following general comments on this proposed draft criteria.

- **Product Classes:** Rheem supports the DOE's definitions for the Residential Water Heater Product Classes as referenced from the Title 10, Code of Federal Regulation, Chapter 11, Part 430, Subpart B, Appendix E. The use of such product definitions make clear the scope of coverage, the applicable test methods and appropriately align the program with residential water heaters. This will help ensure that the Program is not encouraging the installation of water heaters that are not certified to the appropriate safety standards that consider the intended applications.
- **Warranty Period Requirements:** The draft criteria retains product warranty requirements "...to ensure models earning the label are reliable and perform properly." Rheem remains opposed to the imposition of a minimum warranty requirement on the basis that safety and performance criteria are already in place nationally, which ensures that products being sold meet certain minimum criteria. Rather than prescribing minimum warranty requirements, it is our position that the DOE should instead provide guidance to consumers on making their purchases based on product life, warranty, maintenance costs and the like.

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Warranty has traditionally been part of terms and conditions of sales addressed by Federal Trade Commission (FTC) rules and should not be part of or a requirement for participation in a DOE program. Finally, the product warranty period provided by a company has for many years been an important market differentiator and product positioning tool established by the manufacturer. Market forces tend to shape warranty periods and should not be confused with energy efficiency.

- **Consideration of a Volume-Based Energy Factor Criteria:** The draft criteria defines an Energy Star Energy Factor (EF) rating applicable to all water heater capacities in a given category. The use of such narrow criteria will serve to promote only a limited segment of water heaters that will not allow consumers to correctly replace older products or products that have reached the end of their life with Energy Star selections. Since the energy efficiency of a storage water heater is dependent on the unit's capacity, volume-based Energy Star criteria would avoid limiting the options for consumers to choose an Energy Star qualified product. As new energy efficient water heaters develop market presence, the Energy Star criteria will likely be re-evaluated. The use of an Energy Star minimum EF as a function of storage volume should permit future amendments to the Energy Star Program to be more comprehensive and balanced than the approach presented in the latest proposal.

With respect to the product categories considered in this latest draft Energy Star proposal, Rheem offers the following comments specific to water heater categories:

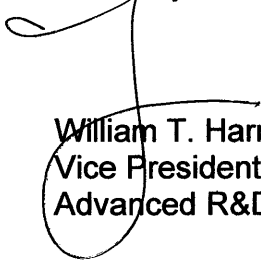
- **Reconsideration of Electric-Resistance Storage Water Heaters:** The draft Energy Star criteria considers the improvements available with electric resistance type water heaters, however, this type of water heater was ultimately excluded on the basis that they offer limited energy savings. While electric resistance type water heaters appear to have reached their design limit relative to further energy efficiency improvements, it must be recognize that this type of water heater holds a significant market presence in nearly 50% of the U.S. homes. When considering the aggregate energy savings of converting from the minimum energy efficiency type product to one with an incremental improvement, we believe that such national energy savings should not be ignored. Instead, providing consumers with an Energy Star option for high performing electric resistance type water heaters will promote the use of affordable energy efficiency solutions.
- **Reconsideration of Whole Home Tankless Water Heaters:** The draft Energy Star criteria introduced a new EF level of 0.82 for gas-fired tankless water heaters on the basis of market data. This new EF level of 0.82 is anticipated that it "...will improve market differentiation..." for this category of water heater. Given that there seemed to be general support among stakeholders for an EF

level of 0.80, there appears to be little new rationale to define a stretch goal of 0.82 with the initial roll out of Energy Star. Lastly, given that gas-fired tankless water heaters are presently considered an emerging technology in the U.S. and recognized for their differentiation from conventional technologies, the designation of Energy Star at a minimum EF of 0.82 does little to promote Energy Star when considering the overall program.

In closing, Rheem believes that the above comments will serve to promote energy efficient water heater Energy Star solutions in a manner that sets the stage to cause a market transformation. Overall, our comments serve to broaden the Energy Star designation for a wide array of water heater sizes in each proposed category. With wider coverage for Energy Star qualification, even on a temporary basis, it will help trigger large scale market transformation towards energy efficient purchase decisions.

Rheem remains eager to continue working with the Department in the development of an Energy Star program for residential water heaters and plans to participate fully as the process continues. We respectfully ask that the DOE consider the concerns outlined above.

Sincerely,

A handwritten signature in black ink, appearing to read 'William T. Harrigill', written over the typed name.

William T. Harrigill
Vice President
Advanced R&D Technology