

November 27, 2007

Mr. Richard Karney  
Energy Star Products Manager  
Department of Energy

Dear Mr. Karney:

In response to the Second Draft of the Criteria for Energy Star Residential Water Heaters, I offer the following response based on my observations of what took place during the International Coordination Meeting held in Washington, DC on October 18, 2007.

1. The initial draft of the Energy Star Criteria for Residential Water Heaters was based on feedback solicited from a variety of stakeholders. During the International Coordination Meeting on October 18, 2007 in Washington, DC, the question was specifically asked of you if the information behind your decision making process for the inclusion or exclusion of certain water heating technologies was based on peer reviewed scientific studies or simply on opinion. In response, you stated that DOE did have studies as back up and that such studies were available on the DOE website. At that point, you also turned to the D&R representative asking for affirmation that your statement was indeed correct. After making a note of your statement, I took a considerable amount of time to review all of the comments and was unable to find any peer reviewed studies. I was also not able to find a general and overwhelming consensus among any of the respondents that would lead me to believe that the DOE was responding in anyway to a majority opinion.
2. The Consortium for Energy Efficiency has developed an excellent model for bringing about continuous change in both water and energy efficiency. Rather than make general assumptions based on cost effectiveness, consumption patterns or required upgrades, the Consortium for Energy Efficiency posts water and energy efficiency information that allows the consumer to make an educated choice based on their own preference. The Consortium for Energy Efficiency does not rely on speculation or perceived worst case scenarios. Instead, it relies on the ability of the product to achieve specific energy or water efficiency standards. As pointed out during the International Coordination Meeting, the DOE would be more effective in bringing about greater efficiencies by following the model used by the Consortium for Energy Efficiency and including all technologies that meet the required energy efficiency standards.
3. The DOE should not speculate as to overloading of transformers or peak system demand in the absence of any documented case studies that such a situation has ever occurred. Perhaps the DOE should consider the possibility, for all the reasons others have provided, that the installation of a gas tankless water heater would result in higher water usage per household. If as a result of unlimited hot water, the end user could take a longer shower without the worry of running out of hot water, it is conceivable that the addition of a tankless water heater will result in higher water consumption.

Is it safe to assume that, in its inclusion of gas tankless water heaters, the DOE could create a situation where more gas tankless water heaters are installed?

If a significant increase in the sale of gas tankless water heaters were to occur, is it safe to assume that a significant increase in water consumption would occur?

With many areas of the country suffering under severe drought restrictions, is it likely that the DOE's inclusion of gas tankless heaters could have a more detrimental effect on such areas?

With the understanding that it takes energy to produce water, is it conceivable that by encouraging greater water consumption the DOE could also increase peak energy demand brought about by increasing peak water demand?

4. Chapter 5 of the Uniform Plumbing Code clearly indicates that it was developed and expressly intended for the sizing of both storage and tankless water heaters. Furthermore, it even goes so far as to level the proverbial playing field by specifying conformance with "First Hour Ratings" under Table 5-1.

As defined by the DOE, "The first hour rating is defined as the amount of hot water in gallons the heater can supply per hour."

The DOE should not place any requirements on any type of water heater that are at direct odds with the Uniform Plumbing Code.

In its draft criteria, the DOE sets standards for heat pump water heaters that in homes with more than one bedroom will not meet the standards set forth by IAPMO. When it comes to tankless water heaters, the DOE sets criteria that are more stringent than the Uniform Plumbing Code and which do not even address the First Hour Ratings required for all water heaters under Table 5-1 of the Uniform Plumbing Code.

5. As the Energy Star Products Manager, it is your responsibility to ensure that the Energy Star Program functions in such a way that is representative of, and in the best interest of, the consumer and the various stakeholders. While the use of consultants may be necessary in developing the criteria, as a program manager you are ultimately responsible for ensuring that the information is correct and that the assumptions are based on sound data. During the International Coordination Meeting you were provided with direct feedback that was generated during a break out session on Advanced Water Heating Technologies. That feedback was generated through lengthy and open discussion among a wide variety of stakeholders. When provided with these comments during the closing session, you seemed to make it clear that you were not inclined to reconsider the stance of the DOE when it comes to advanced water heating technologies. Your second draft seems to indicate your reluctance to consider the additional feedback that was provided to the DOE.

The exclusion of certain technologies because they are already highly efficient; the inclusion of technologies that in some cases do not comply with the Uniform Plumbing Code; the establishment of gallon per minute requirements on tankless water heaters that are not in line with the first hour rating requirements established by IAPMO; and the exclusion of technologies based on speculation in the absence of peer reviewed scientific data are all clear indications that the Energy Star Program under your leadership has failed to represent the stakeholders and the consumer in a well thought out and unbiased manner.

While each type of water heating technology may not be applicable in every situation, each technology nevertheless does have its place in certain settings and under certain conditions. The ultimate decision to go with a certain type of water heater will be made by the end user, the builder or the developer who is best served by the DOE through unbiased recognition of all technologies based on energy efficiency and their ability to meet the requirements of the applicable plumbing code for the given region.

I offer these comments and urge that you reconsider the stance of Energy Star as it relates to the Advanced Water Heating Technologies. I furthermore support the assertions by both GAMA and Bradford White that all technologies should be included.

Sincerely,

Eddie Wilcut  
Conservation Manager  
San Antonio Water System