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November 20, 2014

Ms. Brenda Edwards
U.S. Department of Energy
Building Technologies Office, Mailstop EE-5B
1000 Independence Avenue SW
Washington, DC 20585

Re: RFI on regarding residential solar-thermal water heating systems with secondary heat sources
Docket No. EERE-2014-BT-STD-0045

Dear Ms. Edwards:

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) is the trade association representing manufacturers of air conditioning, space heating, water heating and commercial refrigeration equipment. The AHRI member companies which manufacturer residential water heaters account for essentially all such equipment sold and installed in the U.S. Many of those companies supply water heaters that are provided as secondary heat sources for residential solar water heating systems. We submit the following comments in response to the DOE's request for information (RFI) regarding residential solar-thermal water heating systems which use electric or fossil fuel-fired water heaters as secondary heat sources issued in the October 21, 2014 [Federal Register](#).

The RFI identifies several issues on which DOE is interested in receiving comments. Our comments will address each issue in the order they were presented in the RFI.

Issue 1. Solar water heating technologies that utilize a secondary heating source that are currently available to the consumer.

The technologies utilized as a secondary heating source for solar water heating systems have been identified in the October 21, 2014 Federal Register notice.

Issue 2. Design differences between water heaters that are designed to be part of a solar water heating system compared to those meant for typical residences without a solar water heating system.

There are a range of differences between water heaters designed to be part of a solar water heating system as compared to those intended for typical residences. The range goes from just additional or different controls to the inclusion of heat exchangers in the water heater for the solar water heating system.

Issue 3. Heating rates and the amount of hot water that can be supplied by water heaters meant to serve as a secondary heat source for a solar collector compared to the heating rates and hot water supply capacity water heaters.

The heating rate and hot water supply capability can be the same. However, depending on the design of the solar water heating system, the performance characteristics can be, and often are, less than a standard water heater.

Issue 4. DOE seeks comment on the fractions of single tank and dual tank solar water heating systems, and whether the secondary water heaters used include design features that differ from conventional residential water heaters.

We have no information on this issue.

Issue 5. DOE seeks comment on the manufacturers of water heaters used in solar thermal installations. DOE also seeks input regarding the market share of each manufacturer, and whether any of them are small businesses.

We have no information on this issue.

Issue 6. DOE understands that solar water heaters may be installed with secondary water heaters of varying rated volumes (e.g., 60 gal, 80 gal, 120 gal, etc.), input capacity, and fuel type. DOE seeks input regarding the total annual shipments of the market for solar water heating systems that utilize secondary heat sources, the fractions of water heaters that are used to provide secondary water heating by rated volume, input capacity, and fuel type.

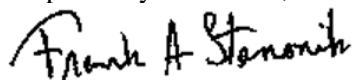
We have no information this issue.

Issue 7. DOE seeks comment on any other attributes of solar water heating systems that utilize secondary heating tanks, which distinguish them from conventional storage or instantaneous water heaters.

We are not aware of any other attributes that distinguish solar water heating systems with secondary heating tanks from conventional storage or instantaneous water heaters.

AHRI appreciates the opportunity to provide these comments. If you have any questions regarding this submission, please do not hesitate to contact me.

Respectively Submitted,



Frank A. Stanonik
Chief Technical Advisor