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Mr. Richard Karney  
U.S. Department of Energy  
Energy Star Program  
1000 Independence Avenue NW  
Washington, DC 20585-0121

Re: Follow-up Comments, Energy Star Residential Water Heaters: Draft Criteria,  
May 2, 2007 (publication date)

These are follow-up comments of Southern Company on the Energy Star™ Water Heater Draft Criteria, issued May 2, 2007.

Southern Company (Southern) is the parent firm of four electric utilities in the southeastern United States: Alabama Power, Georgia Power, Gulf Power, and Mississippi Power. These electric utilities serve over 3.7 million customers, including 3.2 million residential and 479,000 commercial customers. Our 120,000 square mile service territory includes most of Georgia and Alabama, southeastern Mississippi, and the panhandle region of Florida.

Southern Company (Southern) is an active participant in the Energy Star™ program, and appreciates the opportunity to comment on the proposals. We believe that Energy Star™ is a very important part of the federal government's energy efficiency program.

#### Whole-Home Tankless Water Heaters

In addition to our earlier comments, we are concerned that Energy Star™ has proposed classifying many whole home tankless water heaters as Energy Star™ compliant. While it is true that tankless water heaters rate very highly in efficiency based on the current DOE test procedure, this test procedure does not adequately measure the efficiency of usage under normal home water heater usage patterns, with many small hot water draws over the course of a day for uses such as hand-washing, cooking, and other typical uses.

Research sponsored by the California Energy Commission indicates that the actual efficiency of tankless water heaters is lower than when measured using the DOE test procedure. Energy Star™ should be concerned with reducing actual energy usage, even if this energy usage is imperfectly measured by current test procedures. In addition, if DOE were to change its test procedure for determining energy factor ratings, and this resulted in lower ratings for tankless water heaters, Energy Star™ would potentially need

to remove Energy Star certifications from large numbers of models which previously qualified. This would be damaging to the credibility of the entire Energy Star™ program, and should be avoided if possible.

### High Efficiency Electric Water Heaters

Our earlier comments expressed concern that an Energy Star™ electric water heater option other than heat pump water heaters needed to be available. This is because Energy Star™ certifications typically are given to those appliances which are in the top tier (perhaps 20%) of the total market, not a narrow niche market with a very small percentage, such as heat pumps. Gas and electric water heaters, due to venting, wiring, and other issues, are not easily interchangeable and should not be treated as a single class of appliance. Instead, gas-fired water heaters and electric water heater models should be considered independently, and each type should have Energy Star™ models that represent a reasonable share of the market.

It was encouraging that a number of other groups at the public hearing expressed similar views about allowing high efficiency electric resistance water heaters to qualify. Based on market share and other factors, it would be consistent with past Energy Star™ rules to allow a 95% energy factor electric water heater to qualify as Energy Star.™ It is true that the purchase of a 95% efficient electric water heater will not save as much energy as a heat pump water heater. However, many more 95% efficient water heaters are likely to be purchased due to Energy Star™ certification than heat pump water heaters. As a result, total energy savings is likely to be greater from allowing high efficiency electric resistance water heaters to be certified as Energy Star™. This would be consistent with the overall purpose of the Energy Star™ program.

Thank you for the opportunity to comment on these Energy Star™ proposals.

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