CEE Working Together, Advancing Efficiency

July 13, 2007

Richard Karney
ENERGY STAR Product Manager
US Department of Energy
Forrestal Building
1000 Independence Avenue SW, EE2J
Washington, DC 20585

Dear Mr. Karney,

The Consortium for Energy Efficiency (CEE) appreciates the opportunity to provide comments to the Department of Energy. On behalf of CEE, I am submitting the following comments on the ENERGY STAR water heater specification (Draft Criteria Analysis) and the issues raised during the June 5, 2007 stakeholder meeting. These comments were developed by CEE's Natural Gas Committee and the organizations listed at the end of this letter have chosen to indicate their strong individual support for these comments.

CEE shares DOE's goals of bringing more efficient water heating technologies to market and of establishing an ENERGY STAR program for residential water heaters. CEE member programs would benefit from a wider variety of readily available and increasingly energy-efficient water heating options. Thus, CEE has a strong interest in successfully advancing the market introduction and acceptance of super-efficient technologies. In program areas other than water heating, CEE members have made substantial investments in promoting the ENERGY STAR Brand as a key market indicator of proven quality, cost-effectiveness, and reductions to carbon dioxide emissions, so CEE has a strong interest in seeing the ENERGY STAR Brand consistently applied.

Given these goals and interests, CEE would like to see DOE build an ENERGY STAR platform for residential water heating that supports the readily available efficient options in the short term and begins to build equity in this key area of energy end use. The ENERGY STAR Brand in concert with CEE performance tiers, potential program incentives, and education programs may indeed establish the very conditions necessary to attract super-efficient options (sometimes referred in other circles as "emerging technologies").

CEE supports establishing the minimum energy performance requirement for gas storage water heaters at 0.62 EF.

The broad market availability, affordability and installer familiarity with 0.62 EF water heaters provide the most likely set of conditions to successfully establish ENERGY STAR in the residential water heating market. Under this scenario, little trade education and outreach for complying products would be expected, and the focus would likely concentrate around the benefits associated with higher performing units as well as requirements to take advantage of the Program (limiting the number of new concepts for the trade during the initial introduction of ENERGY STAR would be expected to improve uptake and acceptance). Establishing ENERGY

STAR water heaters at 0.62 EF in the short term allows CEE member programs to lay the groundwork for market acceptance of even higher efficiency water heaters by building relationships with trade allies and trust with consumers while also establishing advanced and/or super-efficient performance tiers to introduce the next generation of ENERGY STAR performance.

During the June 5th stakeholder meeting, the suggestion was made to establish the minimal performance level at 0.65 EF. According to research conducted by CEE staff since the stakeholder meeting, the average difference in retail price for a 0.65 EF unit vs. a 0.62 EF unit is over $500. The 0.65 EF model offers higher energy savings but the higher first cost and very limited availability of such present barriers that make it substantially less attractive as an entry level option for an ENERGY STAR Program. These barriers may be significantly eroded once the complement of an ENERGY STAR Platform and efficiency programs begin to build market demand for higher performance options.

Electric resistance units

According to DOE analysis, a high performing (0.95 EF) electric resistance tank water heater would cost a typical customer (average use and average cost of electricity within the US) approximately $480 annually to operate. The poorest performing natural gas unit that can legally be sold based upon minimum performance standards would cost approximately $360 annually to operate. The difference in operating cost means the existence of an electric ENERGY STAR option could result in severe negative financial consequences if a customer selected an electric option over a gas option. This case results in a financial penalty of $120 annually and $1200 over a ten year life. Added to this concern is one of a relatively lower first cost for electric units that may create an impetus for installers and customers to prefer electric units if the ENERGY STAR suggests its installation will result in savings.

In summary, CEE believes that the presence of an electric resistance option could lead to consumer fuel switching based on first cost and result in disappointment with the ENERGY STAR brand based on operation costs. In the case of electric tankless units, the first cost element is not necessarily present, but the operating cost aspect remains. In addition to customer disappointment and potential tarnishing of the ENERGY STAR Brand, this action could also result in greater electrical capacity demands.

CEE supports warranties as a signal of quality essential to maintaining the integrity of the ENERGY STAR brand.

Warranties are a commonly accepted means of indicating quality, and DOE has proposed specific warranty requirements as part of the draft criteria. We feel it's necessary that ENERGY STAR products last long enough to provide consumers a simple payback on their investment in efficiency, and offering warranties that meet expected payback may be one way to do this. We do however acknowledge that inappropriate warranties can raise first cost and prolong consumer payback, which is undesirable, yet some means of indicating quality to consumers is necessary.

For this reason, we feel that for technologies currently on the market, such as gas storage water heaters the ENERGY STAR label should require at least a warranty consistent with the "industry standard." Emerging technologies should be required to have warranties of similar length. In addition, the ENERGY STAR label should not be awarded to a new-to-market technology until some threshold of unit sales has been reached with a failure rate no greater than that of other established ENERGY STAR technologies.

Aside from warranties, CEE's position on the whole-home gas tankless water heaters, heat pump, and solar water heaters is unchanged.

Thank you for your consideration of these comments. Please contact CEE Program Manager Kara Rodgers at (617)-589-3949 ext. 202 or krodgers@cee1.org with any questions.

Sincerely,

Marc Hoffman
Executive Director

Supporting Organizations
KeySpan
MidAmerican Energy Company
NSTAR Electric & Gas
NW Natural
Pacific Gas & Electric Company
Puget Sound Energy
Questar Gas Company
San Diego Gas & Electric
Southern California Gas Company
Terasen Gas
Vermont Gas Systems Inc.
WE Energies
Xcel Energy

Organizations that support 0.64 EF Gas Storage Water Heaters
Wisconsin Focus on Energy