June 24th, 2011 VIA EMAIL

Ms. Abigail Daken
Energy Star Water Heater Program Manager
U.S. Environmental Protection Agency
Office of Air and Radiation
Washington, DC 20460

Dear Ms. Daken,

Thank you for the opportunity to provide input to the DOE's revision process for ENERGY STAR residential water heaters.

The British Columbia Ministry of Energy and Mines is an interested party due to its regulatory activity in setting minimum energy performance standards for residential water heaters sold in the British Columbia market. Our jurisdiction currently has the highest energy efficiency requirements in North America for both electric and natural gas water heaters. Although products sold on the Canadian market apply for ENERGY STAR certification and labeling from Natural Resources Canada, the DOE's ENERGY STAR specifications are a key determinant upon the availability and characteristics of energy efficient products for all of the North America market.

As members of the Northern Climate Heat Pump Water Heater Task Force, our views on integrated heat pump water heaters have been submitted through the Northwest Energy Efficiency Alliance.

However we wish to comment separately on two other items.

Add-On Heat Pump Water Heaters
We are strongly supportive of the addition of add-on heat pump water heaters to the ENERGY STAR program, as these units significantly broaden the market potential for this important energy saving technology. Whereas integrated units primarily target customers whose water heaters are nearing the end of their lifespan, add-on units can be marketed to consumers at any stage—particularly for add-on models which can be transferred easily from one storage tank to another. We are also intrigued by the possibility of using add-on units with natural gas-fired water heaters, which in a jurisdiction with clean electricity such as ours, offers significant opportunities for direct greenhouse gas emissions in homes with gas-fired water heaters.

Our Ministry also runs a whole-home incentive program called LiveSmart BC that includes incentives for heat pump water heaters. While our incentives require ENERGY STAR designation for integrated models, the absence of an ENERGY STAR label for add-on heat pump water heaters has forced us to rely on a minimum EF requirement which is less reliable and more complicated for consumers. We would gladly reference an appropriate ENERGY STAR label for add-on units instead, should this be adopted.

At the DOE webinar on June 22, 2011, a number of warrantee requirements were discussed for add-on heat pump water heaters, including a requirement for the add-on unit manufacturer to take on the warrantee of the attached storage tank in the event that that tank is altered sufficiently to void its warrantee. We have significant reservations about this approach. Care must be taken to ensure that ENERGY STAR specifications, which are intended to assure consumers that they are buying an energy saving product, are not too onerous for manufacturers as to prevent them from participating. It is better for consumers to benefit from the availability of ENERGY STAR products than to address some potential industry issues with voided warranties in a buyer beware marketplace.

Regarding the use of COP versus an EF, we have a general preference for the use of an EF (either as the primary measure or a supplementary one) because it would facilitate comparison against both integrated heat pump water heaters and other types of water heaters (including natural gas). We would support assuming a typical efficiency electric water heater (i.e. 0.90 EF) as input for an EF test. Consumer labeling and information could offer the necessary caveats on the change in EF resulting from use of a different storage tank (particular natural gas, which would have a considerably lower EF).

Gas Condensing Water Heaters

We cautiously endorse DOE's move to increase the technology neutrality of its label for gas water heaters. We have also been disappointed with the lack of availability of ENERGY STAR condensing water heaters, and believe that merging the condensing and non-condensing storage categories could help bring condensing products to the market in a short timeframe. However, any reduction in the ENERGY STAR specifications for condensing gas storage water heaters needs to be done on a temporary basis, with the intention of subsequently raising the bar for all gas storage water heaters. Regulations in the US are targeting a 0.76 EF for larger sized models, while proposed regulations in Canada are targeting 0.80 EF for all sizes. It is important for voluntary measures like the ENERGY STAR program to support the market in developing high quality products that meet these levels *in advance* of regulation. Given this context, we would support a merging of the condensing and non-condensing categories provided that the standard for these water heaters be increased in steps over the next four years from the current 0.67 EF up to 0.80 EF.

Thank you again for the opportunity to comment.

Andrew Pape-Salmon
Director, Energy Efficiency Branch
British Columbia Ministry of Energy and Mines
Andrew.PapeSalmon@gov.bc.ca