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Mr. Richard H. Karney
Manager, ENERGY STAR Program
US Department of Energy
1000 Independence Avenue, SW
Washington, DE 20585-0121

Dear Mr. Karney:

NRCan comments on ENERGY STAR Water Heaters Draft Criteria

Natural Resources Canada would like to thank you for the opportunity to comment on the proposed specifications for ENERGY STAR water heaters.

NRCan supports the development of this specification and offers the following comments:

Agree with the proposal to remove standard storage water heaters, both electric and gas, from consideration for ENERGY STAR.

Agree that whole house gas tankless water heaters should be included given the growth in market share and significant efficiency increase above gas storage water heaters. As proposed in your document, $EF = 0.80$ is the appropriate efficiency.

Electric tankless water heaters should not be considered because a larger electricity service would be required for most installations. The potential for increased efficiency is relatively small compared as compared to electric storage water heaters. If successful, there would be a loss of opportunity for load shifting. (In fact peak demand would increase.)

Support further analysis and investigation for heat pump water heaters. However, sales are too low for immediate inclusion into specification.

Agree with including solar water heating. See specific comments below.

Agree with inclusion of gas condensing storage water heaters. Although no models exist at present below 75,000 btu/h (“residential”), the technology is well known and condensing models are produced at higher firing rates. We believe that existing models have EF ratings of at least 0.80, and suggest this is the appropriate efficiency level. It also corresponds with the EF for tankless gas water heaters.

Disagree with inclusion of advanced non-condensing storage water heaters (EF=0.70). No qualifying products exist at present. SEGWAI activity is likely to advance this level of efficiency without ENERGY STAR. Also, this efficiency level would be inconsistent with tankless gas efficiency level of EF 0.80.

Agree with the proposal to avoid ratings (EF) that vary with volume or input ratings. Doing so would simplify the specification.

Other performance requirements must be considered, but we do not have specific comments at this point.

Regarding the effective date, it could be relatively soon or later, but it is important to set a date. Having a timetable should encourage the production of higher EF storage water heaters, as only tankless gas water heaters would qualify at present.

Regarding solar water heaters, NRCAN has some specific comments:

As the solar fraction varies with location, the suggested minimum solar fraction of 50% should be based on a standard conditions that are clearly specified. Also, F379/T.I.L. MSE-45 certification from CSA International could be an alternative to "OG-300 certification from the SRCC".

Although the energy savings seems to be realistic, the \$3,200 US as the average installed cost may be too low. (Perhaps the cost is for a water based system without freeze protection.)

I hope you find this input to be useful, and look forward to further discussions on the proposed ENERGY STAR specification.

Regards,

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