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Abigail,

As the former Chairman of SEIA and recently replaced Solar Thermal Division Chair of ASES, I am writing to let you know that the industry thinks that EPA is not doing solar hot water any favors. When Les Nelson negotiated with EPA on including solar water heaters, they were required to provide a SF=0.5, which means that solar water heaters must provide 50% of the hot water used by the household. That is a savings of over 50%. The SEF takes into account the losses of the tank, but means solar has to provide over 50% of the domestic hot water used. A Gas, Electric or Tankless water heater that saves only 18% over energy inefficient models is given an ENERGY STAR rating. Why should the same not hold true for solar hot water?

An SF=0.2 should be used, resulting in a Solar Energy Factor (SEF) of 1.12 for electric tanks and a SEF of 0.75 for gas tanks.

The Solar Energy Factor can be converted to an equivalent Solar Fraction (SF) as follows, from the SRCC website.

$SF=1-(EF/SEF)$

The EF for the SRCC standard electric auxiliary tank is 0.9 and for the gas auxiliary tank is 0.6.

The reason EPA has given for this discrimination against solar is that solar hot water is too expensive. Solar may have a higher initial cost, but it has low operating costs and is a capital asset. Have you priced a heat pump water heater lately? Why should EPA care what the initial cost is?? Tankless water heaters may have a lower initial cost than solar, and save tank heat losses, but they must be flushed annually, which can make them the most expensive option. To get ENERGY STAR ratings, solar manufacturers must sell solar thermal systems that have large collector areas. This may lead to overheating and the customer buying more solar system than he needs to get an ENERGY STAR label from a manufacturer.

Any solar system that reduces energy consumption by 20% (SF=0.2) should be given an ENERGY STAR rating.

We are thrilled that you did not throw solar hot water out of the ENERGY STAR program. Now we need to fix the program so solar hot water is treated fairly like all of the other energy-saving options. **Perhaps you could solve this issue by making all energy efficient water heaters, including tankless and heat pump water heaters, meet the same 50% energy savings as solar water heaters to get an ENERGY STAR rating.**

236 **Note:** EPA received several comments on the value of the ENERGY STAR mark in the solar water
237 heating market. EPA agrees that labeling solar water heaters has a positive impact for consumers and
238 the environment, and has decided to retain the solar water heater category within this ENERGY STAR
239 Version 2.0 specification. As for all products, EPA will continue to monitor the role that ENERGY STAR
240 plays in utility incentive programs, and the ultimate impact that the program has on market adoption.

241 Stakeholder feedback indicated that the use of Solar Fraction (SF) in the specification was not in line with
242 industry practice, and supported the use of Solar Energy Factor (SEF) as an appropriate alternate
243 requirement. EPA has decided to replace SF with SEF metric and has converted the SF efficiency
244 requirement to SEF value. EPA used the Solar Rating Certification Corporation's OG-300 model
245 combined with the minimum federal efficiency standards for gas and electric auxiliary tanks to determine
246 appropriate SEF levels. An OG-300 certified solar water heater with a 0.5 SF and a fifty gallon electric
247 auxiliary tank at the federal standard of 0.9 would achieve a SEF of 1.8. An OG-300 certified solar water
248 heater with a 0.5 SF and a fifty gallon gas auxiliary tank at the federal standard of 0.6 would achieve a
249 SEF of 1.2.

Thank you for considering my humble request. The EPA should be fair with solar hot water, not biased against it. I have been working in solar hot water since 1972 and have seen the industry mature. The products are good and reasonably priced; it is time for the EPA to recognize this.

Sincerely,

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(See attached file: ES Draft3 3.22.12Update.pdf)