



November 11, 2021

Abigail Daken
Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

Re: ENERGY STAR® Residential Water Heaters Draft 1 Version 5.0 Specification

Dear Ms. Daken:

On behalf of Bradford White Corporation (BWC), I would like to express our appreciation for the opportunity to comment on the ENERGY STAR Draft 1 Version 5.0 Residential Water Heater Specification. Please find our comments below.

After reviewing the draft specification and attending the specification webinar, BWC is concerned with EPA's approach on both gas-fired storage and gas-fired residential-duty commercial water heaters. The technology, gas-fired heat pump, required to achieve the specified efficiency levels for these two product categories is not currently commercially available. EPA acknowledges in the draft that "they are unable to determine a cost-effective level that provides meaningful differentiation for units on the market." The resulting question raised is, how does EPA know that consumers could see a reasonable payback for using such a product, if it was even available?

We are not sure that the appropriate safety standard for gas-fired heat pump water heaters (HPWH) would be ANSI Z21.10.1/CSA 4.1. If the proposed efficiency levels were finalized in the specification, we are concerned that EPA would be promoting requirements that ultimately would lead to the use of lower efficiency products, since utility rebate programs would no longer be able to reference this Energy Star program. Consequently, we would anticipate that incentives to install water heaters with efficiencies greater than the federal minimums would diminish, if not completely go away.

BWC is concerned with the disparity in how these two types of gas-fired storage water heaters are treated versus gas-fired instantaneous water heaters. We respectfully request EPA elaborate on why these models are allowed to be condensing to qualify as Energy Star, yet the same is not true for storage water heaters.

We respectfully reiterate our concerns laid out in our January 6, 2020, letter related to Current Total Energy Storage Capacity. Also, BWC refers EPA to our concerns in our December 8, 2020, letter on demand response requirements for electric resistance and gas-fired storage water heaters. We maintain that these requirements are not appropriate on these products, at least at this time. In the December 2020 letter, we also question how EPA has determined that the Uniform Energy Factor (UEF) and First Hour Rating (FHR) requirements are appropriate for 120V HPWH products without any of these products being commercially available.

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In general, BWC strongly discourages EPA from making any of the connected criteria as mandatory. Additionally, we are concerned with EPA's inclusion of measuring current power/demand instantaneously on water heating products "in current conditions." These requirements would be complex to implement, especially considering the diversity of water heating manufacturers' product offerings.

We are aware that other stakeholders are encouraging EPA to include refrigerant requirements in this specification. BWC strongly discourages EPA from including any additional requirements that will dramatically increase the cost of HPWHs, which includes refrigerants, at this time. We feel this would be counterproductive to wider scale adoption of HPWHs. While HVAC products may be making advances as it relates to the refrigerants that they use, HPWH technology is not necessarily in the same position. The refrigerant requirements do not account for the different operating temperatures between heat pumps used for space heating/cooling and those for water heating, nor does it account for the impact to the product's efficiency.

While BWC can appreciate EPA's efforts to promote higher energy efficiency products, BWC is concerned about the pace at which EPA is changing the Energy Star requirements for residential water heaters. The accelerated rate of changes we've seen in recent years continues to put significant stress on manufacturers to analyze, respond, and then ultimately alter their products to comply with updated specifications. We respectfully request EPA to update this specification no sooner than every two years to allow manufacturers, the water heating market, and utility rebate programs time to adjust to and be able to effectively support any new requirements.

Bradford White Corporation thanks you for this opportunity to provide comments on the ENERGY STAR Draft 1 Version 5.0 Residential Water Heater Specification. Please let me know if you have any follow-up questions.

Respectfully Submitted,

Bradford White Corporation

Eric Truskoski
Senior Director of Government and Regulatory Affairs

Cc: R.B. Carnevale; B. Hill; L. Prader; C. Sanborn; C. VanderRoest; J. Robertson; K. Doyle; B. Wolfer;

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