October 5, 2021

Dear ENERGY STAR® Water Heater Partner or Other Interested Party:

With this letter, the Environmental Protection Agency (EPA) is pleased to share the first draft of the ENERGY STAR Version 5.0 Residential Water Heaters specification. As anticipated at the close of the ENERGY STAR Version 4.0 specification revision, which made the requirements for electric products more stringent, EPA is now proposing more stringent criteria for gas-fired storage and instantaneous water heaters. No changes are proposed for electric products and Version 4.0 will still take effect as planned January 5, 2022.

Consistent with the Biden Administration’s commitment to decarbonization, EPA is proposing significant increases in the criteria for gas-fired water heaters, while allowing them to remain in scope as familiarity with electric alternatives grows. The ENERGY STAR Version 5.0 Residential Water Heaters Draft 1 specification reflects changes to ensure ENERGY STAR gas-fired criteria represent the most energy efficient technology. The proposed gas-fired storage water heater level could be met with developments in technologies like gas heat pump water heaters. The gas-fired instantaneous water heater proposed criteria reflect differentiation within the market and improve consumer payback for these models.

EPA had maintained Energy Factor (EF) criteria as an option for the certification of products sold only in Canada, as well as Thermal Efficiency (TE) criteria for products on the residential market with input rates between 75,000 and 100,000 Btu per hour, and up to 100 gallons storage volume. Natural Resources Canada has confirmed that maintaining two sets of criteria is no longer necessary. As such, all efficiency requirements for in this specification will be made with the Uniform Energy Factor (UEF) or Solar Uniform Energy Factor (SUEF) metrics.

Calculated savings associated with the proposed criteria are 80 therms ($81) per year for gas-fired water heaters under 55 gallons, 45 therms ($46) per year for gas-fired water heaters 55 gallons or greater, and 31 therms ($31) per year for gas-fired instantaneous water heaters. The national electric savings potential for gas-fired storage and instantaneous water heaters is over 5,000 million therms, or over 27 MMT CO₂e.

EPA will hold a webinar to discuss the proposed criteria and test method on October 13 from 12:00 pm 2:00 pm ET; please RSVP here for the specification webinar. We encourage stakeholder
feedback on the ENERGY STAR Version 5.0 Residential Water Heater Draft 1 specification. Please submit any comments to WaterHeaters@energystar.gov by November 11, 2021. Based on current circumstances, this comment period has been extended to 6 weeks.

All comments will be posted to the ENERGY STAR Water Heaters Version 5.0 Product Development website unless the submitter requests otherwise.

Please direct any specific questions to Abigail Daken at EPA, Daken.Abigail@epa.gov or 202-343-9375, and Morganne Blaylock at ICF, Morganne.Blaylock@icf.com or 202-862-2952.

Thank you for your continued support of the ENERGY STAR program.

Sincerely,

Abigail Daken
EPA Manager, ENERGY STAR HVAC Program

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