



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR AND RADIATION

July 18, 2022

Dear ENERGY STAR® Water Heater Brand Owner or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) is pleased to distribute the [Final Version 5.0 ENERGY STAR® Water Heater specification](#) and the [Final Version 1.2 ENERGY STAR Connected Residential Water Heaters Test Method to Validate Demand Response](#). EPA would like to thank the many stakeholders who have invested time and effort to contribute feedback that has informed this specification revision process. Version 5.0 requirements will be effective on April 18, 2023. All connected products should use the new version of the test method immediately.

Gas water heaters meeting this specification can save between \$19 and \$88 per year of average use, depending on the water heater type and capacity. Please see the accompanying [data package](#) for details. If all gas water heaters sold in the US met these criteria, the energy cost savings would grow to \$28 billion per year, and 55 billion pounds of greenhouse gas emissions would be prevented.

This specification was developed through a process that included the release of a draft specification and holding individual meetings with numerous industry stakeholders to receive feedback. The themes from the Draft 1 comments were repeated in the latest comment period. EPA received comments asking for both lower and higher UEF levels from different stakeholders. Those calling for lower levels typically were in favor of no changes to the current Version 4.0 UEF levels, though some were interested in adding a higher tier recognition for products with a UEF above 1.00. Some commentors were only interested in slightly lower levels than proposed by EPA. Those calling for higher UEF criteria were typically asking for a level higher than 1.00, requiring a heat pump level of efficiency. EPA has retained the suggested levels for Further details and EPA's responses can be found in the [Final Draft Comment Response Matrix](#).

EPA made one change in the final specification, removal of NO_x reporting requirements for all gas water heater types, which was our intention in the Final Draft. Numerous commentors requested we do so, typically citing added certification burden on manufacturers as a concern. While there were partners that appreciated NO_x reporting, EPA does not believe it adds enough value to include.

EPA received extensive feedback both supporting and opposing the possibility of sunseting gas products in the near future. Many stakeholders opposing sunseting gas products cite EPA's guiding principles, with specific comments made about the availability of units and the cost effectiveness of ENERGY STAR products after that change. Many stakeholders are interested in keeping the products available to consumers who may not financially be able to make the upgrades necessary for a heat pump water heater, and in maintaining existing utility programs

that reference the ENERGY STAR certification for their program offerings. Some also challenged the conventional wisdom that electrification of water heating is the least costly path to decarbonization, which was the primary argument of those supporting the sunset. Those supporting the sunset referred to the urgency of decarbonization and to the Biden administration's commitment to it.

Stakeholder comments, previous drafts of the specification, and related materials are available on EPA's ENERGY STAR website at www.energystar.gov/specifications. Click on the "[View the Version 5.0 Development Process](#)" link for Water Heaters.

Test Method to Validate Demand Response

The Final ENERGY STAR Connected Residential Water Heaters Test Method to Validate Demand Response, Version 1.2 remains unchanged from the final draft release of the document. EPA and DOE remain involved in the development a related industry document that may have an impact on the test method: proposed AHRI Standard 1430, Demand Flexible Water Heaters. AHRI, DOE, and EPA are committed to as much alignment as possible, and do not anticipate problems with achieving it. However, as the AHRI standard is not yet final, we have not changed the ENERGY STAR Test Method at this time. Once the standard is finalized, we will revisit alignment as needed.

Timeline and Next Steps

EPA shares Partners' desire for a smooth transition from one ENERGY STAR specification to the next, so that consumers can expect ENERGY STAR labeled products to fully meet the latest requirements upon their effective date. With this in mind, EPA has established the following timeline:


- Effective immediately, manufacturers may elect to have their Certification Body (CB) certify their eligible products to the Version 5.0 requirements, including recognition as connected.
- As of November 23, 2022, CBs will be instructed to stop certifying new product submittals to Version 4.0. Note, however, that existing certifications will remain valid for purposes of ENERGY STAR qualification until April 18, 2023.
- Any water heater manufactured as of April 18, 2023, must meet Version 5.0 requirements to bear the ENERGY STAR mark. All certifications of products to the Version 4.0 specification will be invalid for purposes of ENERGY STAR qualification and the product finder will only include models certified to Version 5.0.

ENERGY STAR partnership as a manufacturer is limited to organizations that own and/or license a brand name under which they sell eligible products in the United States and/or Canada. Partnership is not available to original equipment manufacturers (OEMs) that do not sell directly to consumers or end users. OEMs may certify products on behalf of the ENERGY STAR brand owners/licensees; however, the brand owner must be the ENERGY STAR partner associated directly with the certified product models, since only partners are authorized to use the ENERGY STAR certification mark.

EPA thanks stakeholders who provided feedback during the specification revision process and looks forward to working with you as you certify and market your energy-efficient water heaters. Please direct any questions regarding the specification and its timeline to Abigail Daken, EPA,

at daken.abigail@epa.gov or (202) 343-9375, and Ned Bent, ICF, at ned.bent@icf.com, or (571) 842-4917. For marketing or webpage questions, please contact Nate Jutras at jutras.nathaniel@epa.gov or (202) 738-3515. For test procedure inquiries, please contact Julia Hegarty, U.S. Department of Energy, at julia.hegarty@ee.doe.gov or (240) 597-6737. Thank you for your continued support of the ENERGY STAR program.

Sincerely,



Abigail Daken, Product Manager
ENERGY STAR for HVAC

Enclosures:

[ENERGY STAR Version 5.0 Water Heaters Final Specification and Partner Commitments](#)
[ENERGY STAR Connected Residential Water Heaters Test Method to Validate Demand Response, Version 1.2](#)
[ENERGY STAR Version 5.0 Water Heaters Final Draft Comment Response Matrix](#)
[ENERGY STAR Version 5.0 Water Heaters Final Data Package](#)