



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

OFFICE OF  
AIR AND RADIATION

October 28 2020

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

With this letter, the Environmental Protection Agency (EPA) is launching a revision of the ENERGY STAR specification for water heaters. We are pleased to share the [first draft of the Version 4.0 ENERGY STAR specification](#) and the [second draft Test Method to Validate Demand Response for Residential Water Heaters](#). The current criteria for recognition have been in place since April 2015. Since that time, the products on offer (particularly heat pump water heaters) have progressed rapidly. In response, EPA recognizes the need to revise the criteria. This process will encompass and supersede the ongoing Version 3.3 specification development process to add optional connected criteria.

The Draft 1, Version 4.0 ENERGY STAR Water Heater Product Specification reflects changes to keep the ENERGY STAR specification in line with products on offer in the market. Revising the specification serves key market players by providing a nationally available efficiency level that aligns with energy efficiency program sponsors' need for program savings and ideally boosting market adoption of efficient models. Calculated savings associated with the proposed criteria are 2,544 kWh (\$315) per year for electric water heaters under 55 gallons, and 466 kWh (\$58) per year for electric water heaters 55 gallons or greater. The national electric savings potential for electric water heaters is 87 TWh per year, or \$10.8 billion. Recognizing electric heat pump water heaters already reflect the lowest energy use for the service delivered, this revision will not substantially affect the number of ENERGY STAR models available to consumers. EPA considered raising levels for gas storage and gas instantaneous water heaters as well, but was unable to find higher levels with compelling savings or consumer payback.

In addition, EPA seeks to simplify and rationalize a specification that has become complicated by the piecemeal transition from EF to UEF metrics. As proposed in the Version 3.3 Draft 2, the EF criteria have been moved to Appendix A. Products sold only in Canada may still certify using EF, but all products sold in the U.S. must certify with UEF. EPA is also updating the solar water heater criteria to reflect the upcoming SUEF metric as proposed in the Solar Ratings and Certification Corporation's draft revision to the [ICC 900/SRCC 300-2020 Solar Thermal System Standard, Appendix A: Solar Uniform Energy Factor Procedure for Solar Water Heating Systems](#).

The Draft 2 Test Method to Validate Demand Response incorporates updates based on comments received in response to the publication of the Draft 1 Test Method to Validate Demand Response and the Draft 2, Version 3.3 ENERGY STAR Water Heater Product Specification. Updates were also proposed based on testing water heaters with connected capabilities to the Draft 1 Test Method. The Draft 1 Version 4.0 specification also contains minor modifications to the connected criteria in response to comments received on the Version 3.3 specification. More details can be found in note boxes throughout the specification.

EPA will hold a webinar to discuss the proposed criteria and test method on November 11th from 3:00-5:00pm ET; please [RSVP here for the specification and test method webinar](#). We encourage stakeholder feedback on the Draft 1, Version 4.0 ENERGY STAR Water Heater Product Specification and the Draft 2 Test Method to Validate Demand Response. Please submit any comments to [WaterHeaters@energystar.gov](mailto:WaterHeaters@energystar.gov) by December 9, 2020. Based on current circumstances, this comment period has been extended to 6 weeks.

All comments will be posted to the ENERGY STAR [Product Development website](#) unless the submitter requests otherwise.

Please direct any specific questions to Abigail Daken at EPA, [Daken.Abigail@epa.gov](mailto:Daken.Abigail@epa.gov), or 202-343-9375 and Julia Hegarty at ICF, [Julia.Hegarty@icf.com](mailto:Julia.Hegarty@icf.com) or 202-862-1163. Please direct test procedure questions to Catherine Rivest at DOE, [Catherine.Rivest@ee.doe.gov](mailto:Catherine.Rivest@ee.doe.gov) or 202-586-7335.

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

Sincerely,

A handwritten signature in cursive script, appearing to read 'Abigail Daken', written in black ink.

Abigail Daken  
EPA Manager, ENERGY STAR HVAC Program

Enclosures:

[ENERGY STAR Draft 1 Version 4.0 Water Heaters Specification](#)

[ENERGY STAR Draft 1 Version 4.0 Water Heaters Data Package](#)

[Draft 2 ENERGY STAR Connected Residential Water Heaters Test Method to Validate Demand Response](#)

[ENERGY STAR Draft 2 Version 3.3 Water Heaters Comment Response Matrix](#)