

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



OFFICE OF
AIR AND RADIATION

April 29, 2015

Dear ENERGY STAR® Residential Dishwasher Brand Owner or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) is pleased to share the final Version 6.0 ENERGY STAR Residential Dishwasher specification. EPA appreciates the constructive collaboration of stakeholders in developing this specification. These Version 6.0 requirements will take effect on January 29, 2016. This letter provides highlights of the new requirements and outlines the transition process.

The Version 6.0 specification will recognize the top performing residential dishwashers. ENERGY STAR certified standard dishwashers will use 12% less energy and 25% less water than a dishwasher that meets the Federal minimum. The specification reintroduces efficiency levels for compact dishwashers, which will deliver 9% energy savings and 11% water savings over conventional compact dishwashers. If all dishwashers sold in the United States were ENERGY STAR certified, the cost savings would grow to more than \$545 million each year and more than 6 billion pounds of annual greenhouse gas emissions would be prevented, equivalent to the emissions from over 650,000 vehicles. The specification also defines optional criteria for connected functionality, promoting immediate consumer convenience and longer-term grid benefits, and provides for optional cleaning performance reporting.

Final Version 6.0 Specification Highlights

EPA received no new substantive comments on the Final Draft Eligibility Criteria. As such, the criteria remains largely unchanged. The following two minor edits were made prior to publication:

- EPA corrected Section 6.A2 to reference the relevant U.S. Department of Energy (DOE) sampling requirements, Subpart B § 429.19.
- EPA updated the compliance language for connected functionality in Section 6.C to provide clarity based on questions received on other product categories with optional connected criteria. The language provides clarification that once the final ENERGY STAR Demand Response test method is released, products must be evaluated using this test method to be recognized for connected functionality.

The Version 6.0 specification introduces the following new requirements compared to the Version 5.0:

Performance Requirements

More stringent ENERGY STAR efficiency criteria require standard dishwashers to use less than or equal to 270 kilowatt hours per year (kWh/yr) and 3.5 gallons of water per cycle. Compact dishwashers are required to use less than or equal to 203 kWh/yr and 3.1 gallons per cycle.

Optional Connected Criteria

This specification establishes optional connected criteria for dishwashers. ENERGY STAR certified dishwashers with connected functionality offer favorable attributes for demand response programs to consider, since their peak energy consumption is relatively high, driven by water heating. ENERGY STAR certified dishwashers with connected functionality will offer consumers new convenience and energy-saving features, such as alerts for cycle completion and/or recommended maintenance, as well as feedback on the energy use of the product. As cycle-based appliances, dishwashers are well-suited to load reduction and load shifting, with little to no impact on consumer comfort. For example, on a hot summer day, shifting dishwashing cycles from the afternoon or early evening, into the later evening hours, could help better

balance load. These products will also be smart-grid ready, meaning they will give consumers the option to connect their dishwashers with their local utility to potentially save money on their energy bills, where those services are offered, and also facilitate broader electric power system efficiency.

DOE is planning to develop a test method to validate the demand response capabilities of dishwashers. The 5% allowance for connected functionality will be available upon publication of the final test method. After publication, products must be certified using this final and validated ENERGY STAR test method for demand response in order to continue to be identified on the Qualified Products List as offering connected functionality and to make use of the 5% allowance.

Optional Cleaning Performance Reporting

Under this specification, brand owners are encouraged to report cleaning performance using the ENERGY STAR Test Method for Determining Residential Dishwasher Cleaning Performance. In response to the Final Draft, two commenters reiterated strong support for the incorporation of cleaning performance reporting, citing the need to ensure that performance is maintained as we navigate higher levels of efficiency. One commenter again raised questions about EPA's methods for gathering the voluntary data, and plans for its use. While the Agency appreciates the commenter's offer to periodically aggregate and submit the data as the commenter sees fit, we maintain that it will be most useful to the program to use the data submission pathways available directly via the brand owners, particularly at the time of product certification. Brand owners can choose to submit data either through their EPA-recognized certification body, or, if they prefer, directly to the ENERGY STAR program via appliances@energystar.gov. EPA will review and evaluate any cleaning performance data submitted, and will continue to engage closely with stakeholders in the interest of better understanding the relationship between energy and water use and cleaning performance.

Version 6.0 Transition Timeline and Next Steps:

EPA shares partners' desire for a smooth transition from one ENERGY STAR specification version to the next so that consumer expectations are met and ENERGY STAR labeled products fully meet the new 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 eligible products to the Version 6.0 requirements. Compact dishwashers that were previously certified to Version 5.1 or 5.2 before the sub-category was removed from eligibility in 2013, must re-certify to Version 6.0 in order to appear on the Qualified Product List.
- After September 15, 2015, CBs will be instructed to stop certifying new product submittals to Version 5.2. Note, however, that existing certifications to Version 5.2 will remain valid for the purposes of ENERGY STAR certification until January 29, 2016.
- Any residential dishwasher manufactured as of January 29, 2016, must meet the Version 6.0 requirements to bear the ENERGY STAR mark. All certifications of products to the Version 5.2 specification will be invalid for purposes of ENERGY STAR and CBs will only submit product models certified to Version 6.0 to EPA.

On behalf of EPA, I would like to thank all stakeholders who provided feedback during this specification revision process and I look forward to working with you as you certify and market your ENERGY STAR certified dishwashers. Please feel free to contact me with any questions at fiffer.melissa@epa.gov, 202-343-9494, or Sarah Medepalli, ICF International, at sarah.medepalli@icfi.com, 202-677-5201. Dishwasher test method questions should be directed to Ashley Armstrong, DOE, at Ashley.Armstrong@ee.doe.gov or 202-586-6590. Thank you for your continued support of the ENERGY STAR program.

Sincerely,



Melissa Fiffer, Product Manager
ENERGY STAR Appliances