



ENERGY STAR® Program Requirements for Residential Dishwashers

Partner Commitments

Following are the terms of the ENERGY STAR Partnership Agreement as it pertains to the manufacture and labeling of ENERGY STAR qualified products. The ENERGY STAR Partner must adhere to the following partner commitments:

Qualifying Products

1. Comply with current ENERGY STAR Eligibility Criteria, which define performance requirements and test procedures for residential dishwashers. A list of eligible products and their corresponding Eligibility Criteria can be found at www.energystar.gov/specifications.
2. **Prior to associating the ENERGY STAR name or mark with any product**, obtain written certification of ENERGY STAR qualification from a Certification Body recognized by EPA for residential dishwashers. As part of this certification process, products must be tested in a laboratory recognized by EPA to perform residential dishwasher testing. A list of EPA-recognized laboratories and Certification Bodies can be found at www.energystar.gov/testingandverification.

Using the ENERGY STAR Name and Marks

3. Comply with current ENERGY STAR Identity Guidelines, which define how the ENERGY STAR name and marks may be used. Partner is responsible for adhering to these guidelines and ensuring that its authorized representatives, such as advertising agencies, dealers, and distributors, are also in compliance. The ENERGY STAR Identity Guidelines are available at www.energystar.gov/logouse.
4. Use the ENERGY STAR name and marks only in association with qualified products. Partner may not refer to itself as an ENERGY STAR Partner unless at least one product is qualified and offered for sale in the U.S. and/or ENERGY STAR partner countries.
5. Provide clear and consistent labeling of ENERGY STAR qualified residential dishwashers.
 - 5.1. The ENERGY STAR mark must be clearly displayed on the top/front of the product (by placement of the ENERGY STAR logo on the FTC's EnergyGuide label, on product labels, and/or as a permanent mark), in product literature (i.e., user manuals, spec sheets, etc.), and on the manufacturer's Internet site where information about ENERGY STAR qualified models is displayed.
 - 5.2. It is also recommended that the mark appear on the product packaging.

Verifying Ongoing Product Qualification

6. Participate in third-party verification testing through a Certification Body recognized by EPA for residential dishwashers, providing full cooperation and timely responses. EPA/DOE may also, at its discretion, conduct tests on products that are referred to as ENERGY STAR qualified. These products may be obtained on the open market, or voluntarily supplied by Partner at the government's request.

Providing Information to EPA

7. Provide unit shipment data or other market indicators to EPA annually to assist with creation of ENERGY STAR market penetration estimates, as follows:

- 7.1. Partner must submit the total number of ENERGY STAR qualified residential dishwashers shipped in the calendar year or an equivalent measurement as agreed to in advance by EPA and Partner. Partner shall exclude shipments to organizations that rebrand and resell the shipments (unaffiliated private labelers).
- 7.2. Partner must provide unit shipment data segmented by meaningful product characteristics (e.g., type, capacity, presence of additional functions) as prescribed by EPA.
- 7.3. Partner must submit unit shipment data for each calendar year to EPA or an EPA-authorized third party, preferably in electronic format, no later than March 1 of the following year.

Submitted unit shipment data will be used by EPA only for program evaluation purposes and will be closely controlled. If requested under the Freedom of Information Act (FOIA), EPA will argue that the data is exempt. Any information used will be masked by EPA so as to protect the confidentiality of the Partner.

8. Report to EPA any attempts by recognized laboratories or Certification Bodies (CBs) to influence testing or certification results or to engage in discriminatory practices.
9. Notify EPA of a change in the designated responsible party or contacts within 30 days using the My ENERGY STAR Account tool (MESA) available at www.energystar.gov/mesa.

Performance for Special Distinction

In order to receive additional recognition and/or support from EPA for its efforts within the Partnership, the ENERGY STAR Partner may consider the following voluntary measures, and should keep EPA informed on the progress of these efforts:

- Provide quarterly, written updates to EPA as to the efforts undertaken by Partner to increase availability of ENERGY STAR qualified products, and to promote awareness of ENERGY STAR and its message.
- Consider energy efficiency improvements in company facilities and pursue benchmarking buildings through the ENERGY STAR Buildings program.
- Purchase ENERGY STAR qualified products. Revise the company purchasing or procurement specifications to include ENERGY STAR. Provide procurement officials' contact information to EPA for periodic updates and coordination. Circulate general ENERGY STAR qualified product information to employees for use when purchasing products for their homes.
- Feature the ENERGY STAR mark(s) on Partner website and other promotional materials. If information concerning ENERGY STAR is provided on the Partner website as specified by the ENERGY STAR Web Linking Policy (available in the Partner Resources section of the ENERGY STAR website), EPA may provide links where appropriate to the Partner website.
- Ensure the power management feature is enabled on all ENERGY STAR qualified displays and computers in use in company facilities, particularly upon installation and after service is performed.
- Provide general information about the ENERGY STAR program to employees whose jobs are relevant to the development, marketing, sales, and service of current ENERGY STAR qualified products.
- Provide a simple plan to EPA outlining specific measures Partner plans to undertake beyond the program requirements listed above. By doing so, EPA may be able to coordinate, and communicate Partner's activities, provide an EPA representative, or include news about the event in the ENERGY STAR newsletter, on the ENERGY STAR website, etc. The plan may be as simple as providing a list of planned activities or milestones of which Partner would like EPA to be aware. For example, activities may include: (1) increasing the availability of ENERGY STAR qualified products by converting the entire product line within two years to meet ENERGY STAR guidelines; (2) demonstrating the economic and environmental benefits of energy efficiency through special in-store displays twice a year; (3) providing information to users (via the website and user's manual) about energy-saving features and operating characteristics of ENERGY STAR qualified products; and (4) building awareness of the ENERGY STAR Partnership and brand identity by collaborating with EPA on one print advertorial and one live press event.

- Join EPA's SmartWay Transport Partnership to improve the environmental performance of the company's shipping operations. The SmartWay Transport Partnership works with freight carriers, shippers, and other stakeholders in the goods movement industry to reduce fuel consumption, greenhouse gases, and air pollution. For more information on SmartWay, visit www.epa.gov/smartway.
- Join EPA's Green Power Partnership. EPA's Green Power Partnership encourages organizations to buy green power as a way to reduce the environmental impacts associated with traditional fossil fuel-based electricity use. The partnership includes a diverse set of organizations including Fortune 500 companies, small and medium businesses, government institutions as well as a growing number of colleges and universities. For more information on Green Power, visit www.epa.gov/greenpower.



ENERGY STAR® Program Requirements Product Specification for Residential Dishwashers

Eligibility Criteria Draft Version 5.2

Note: The Federal minimum efficiency standard for compact residential dishwashers manufactured on or after May 30, 2013, are equivalent to the current ENERGY STAR requirements for compact units. This situation has prompted the U.S. Environmental Protection Agency (EPA) to propose a set of steps to help minimize the potential for customer confusion during the time it takes to establish new requirements that more effectively differentiate energy efficient compact dishwashers from standard models.

This proposal sets up what EPA intends to be a reasonable transition process and proposes an amendment to the Version 5.1 dishwasher specification, consistent with that process. Specifically, EPA proposes:

- 1.) Effective July 29, 2013 (60 days after manufacturers are required to comply with the amended Federal standard), certification bodies (CBs) would be asked to stop certifying new compact dishwashers to ENERGY STAR.
- 2.) Compact dishwashers certified to ENERGY STAR Version 5.1 or Version 5.2 would remain qualified through December 31, 2013. After this date, all compact models would be removed from the qualified product list and could no longer be promoted as ENERGY STAR.

EPA has amended Section 2B and Section 3 of this document to reflect this proposal. For clarity, the month/year of the final Version 5.2 will be noted in the specification footer.

EPA and U.S. Department of Energy (DOE) have also updated Section 1 to also include the definitions of a compact dishwasher and a standard dishwasher from 10 CFR 430 Subpart B Appendix C1. These definitions are applicable for models tested and certified to ENERGY STAR using Appendix C1; this DOE test method is required for models certified beginning May 30, 2013.

EPA encourages stakeholders to submit comments on this proposal to appliances@energystar.gov by May 20, 2013.

Following is the draft **Version 5.2** ENERGY STAR Product Specification for Residential Dishwashers. A product shall meet all of the identified criteria if it is to earn the ENERGY STAR.

1) Definitions

- A. Dishwasher: A cabinet-like appliance which with the aid of water and detergent, washes, rinses, and dries (when a drying process is included) dishware, glassware, eating utensils, and most cooking utensils by chemical, mechanical and/or electrical means and discharges to the plumbing drainage system.
 - a. Compact Dishwasher (applicable when testing using Appendix C): A dishwasher that has a capacity of less than eight place settings plus six serving pieces as specified in ANSI/AHAM DW-1 (as incorporated by reference in 10 CFR § 430.22), using the test load specified in section 2.7 of 10 CFR 430, Subpart B, Appendix C.

- b. Compact Dishwasher (applicable when testing using Appendix C1): A dishwasher that has a capacity of less than eight place settings plus six serving pieces as specified in ANSI/AHAM DW-1-2010 (incorporated by reference; see § 430.3), using the test load specified in section 2.7 of 10 CFR 430, Subpart B, Appendix C1.
 - c. Standard Dishwasher (applicable when testing using Appendix C): A dishwasher that has a capacity equal to or greater than eight place settings plus six serving pieces as specified in ANSI/AHAM DW-1 (as incorporated by reference in 10 CFR § 430.22), using the test load specified in section 2.7 of 10 CFR 430, Subpart B, Appendix C.
 - d. Standard Dishwasher (applicable when testing using Appendix C1): A dishwasher that has a capacity equal to or greater than eight place settings plus six serving pieces as specified in ANSI/AHAM DW-1-2010 (incorporated by reference; see § 430.3), using the test load specified in section 2.7 of 10 CFR 430, Subpart B, Appendix C1.
 - e. Portable Dishwasher: A dishwasher which is not permanently connected to the household water and electric supply lines. It can be mounted on wheels and easily moved from one place to another in normal use. This definition includes dishwashers intended to be used on a countertop or table.
- B. Basic Model: All units of a given type of product (or class thereof) manufactured by one manufacturer, having the same primary energy source, and which have essentially identical electrical, physical, and functional (or hydraulic) characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency.

2) Scope

- A. Included Products: Products that meet the definition of a dishwasher as specified herein and a consumer product as specified in 10 CFR § 430.2 are eligible for ENERGY STAR qualification under this specification.
- B. Excluded Products: Product types not specifically identified in Section 2.A are not eligible for ENERGY STAR qualification under this specification. Products that are covered under other ENERGY STAR product specifications (e.g., Commercial Dishwashers) are not eligible for qualification under this specification. After December 31, 2013, compact dishwashers are no longer eligible for ENERGY STAR qualification under this specification.

3) Qualification Criteria

- A. Energy and Water Performance:

Table 1: Energy and Water Performance Requirements

	Water (gallons per cycle)	Energy (kWh per year)
Standard	≤ 4.25	≤ 295
Compact through 12/31/2013	≤ 3.50	≤ 222
Compact after 12/31/2013	NA	NA

B. Significant Digits and Rounding:

- a. All calculations shall be carried out with directly measured (unrounded) values.
- b. Unless otherwise specified, compliance with specification limits shall be evaluated using directly measured or calculated values without any benefit from rounding.
- c. Directly measured or calculated values that are submitted for reporting on the ENERGY STAR website shall be rounded to the nearest significant digit as expressed in the corresponding specification limit.

C. Model Numbers: Model numbers used for ENERGY STAR qualified product submissions shall be consistent with Federal Trade Commission (FTC) and Department of Energy (DOE) submissions.

4) Test Requirements

- A. One of the following sampling plans shall be used to test for qualification to ENERGY STAR:
 - a. A representative unit shall be selected for testing based on the definition for Basic Model provided in Section 1. above; or
 - b. Units shall be selected for testing per the sampling requirements defined in 10 CFR § 429.19, which references 10 CFR § 429.11.
- B. When testing residential dishwashers, the test methods specified in Table 2 shall be used to determine ENERGY STAR qualification:

Table 2: Test Methods for ENERGY STAR Qualification

ENERGY STAR Requirement	Test Method Reference
Energy Consumption (kWh/year)	10 CFR 430, Subpart B, Appendix C or
Water Consumption (gallons/cycle)	10 CFR 430, Subpart B, Appendix C1 (required for models certified beginning May 30, 2013)

5) Effective Date

The ENERGY STAR Residential Dishwasher specification shall take effect on the dates specified in Table 3. To qualify for ENERGY STAR, a product model shall meet the ENERGY STAR specification in effect on the date of manufacture. The date of manufacture is specific to each unit and is the date (e.g., month and year) on which a unit is considered to be completely assembled.

Table 3: Specification Effective Date

Effective Date
January 20, 2012

6) Future Specification Revisions

- A. EPA reserves the right to change the specification should technological and/or market changes affect its usefulness to consumers, industry, or the environment. In keeping with current policy, revisions to the specification are arrived at through industry discussions. In the event of a specification revision, please note that the ENERGY STAR qualification is not automatically granted for the life of a product model.

- B. EPA intends to continue its investigation of the following topics specific to the Residential Dishwashers specification:
- a. Cleaning Performance – EPA plans to propose a cleaning performance requirement for Tier 2 as part of the next ENERGY STAR specification revision process.
 - b. Smart Grid – EPA will continue to consider the opportunity for ENERGY STAR to address and encourage smart grid functionality in residential dishwashers. To support this, EPA encourages partners and other interested stakeholders to share information including key features and functionality of interest, the consumer benefit associated with such functionality, how savings should be measured and verified, and any price differential for a product with such functionality.