



ENERGY STAR[®]

Residential Dishwashers

Draft 2 Version 6.0 Specification
Stakeholder Webinar
July 9, 2014



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Webinar Logistics



- All phone lines will be muted, **to unmute please press *6**
- Please do not use the GoTo Webinar 'Questions' feature to ask questions.
- Presented material can be found on the ENERGY STAR Dishwasher Product Development webpage at www.energystar.gov/revisedspecs and follow the Version 6.0 link for Residential Dishwashers

Introduction – Welcome/Goals	Melissa Fiffer, EPA
Dishwasher Draft 2, Version 6.0 – Presentation & Discussion	
- “Connected” Functionality	Melissa Fiffer, EPA Doug Frazee, ICF International
- Definitions - Revisions to ENERGY STAR Criteria - Cleaning Performance Voluntary Reporting	Melissa Fiffer, EPA Ryan Fogle, D&R International
Conclude & Next Steps	Melissa Fiffer, EPA

Webinar Goals



1. Highlight proposed changes in the Draft 2, Version 6.0 specification.
2. Solicit stakeholder feedback on outstanding issues/questions identified.
3. Address stakeholder questions about process and/or changes.
4. Discuss next steps and timeline.

Specification Development



- When developing or revising a specification, EPA balances:
 - The need to keep pace with evolution among leading products and continue to effectively differentiate for consumers.
 - Timing of new Federal standards.
 - Production cycles, other factors important to the industry.
- Key elements of the stakeholder process:
 - Consistency, transparency, inclusiveness, responsiveness, and clarity.

ENERGY STAR Guiding Principles



- ENERGY STAR criteria are designed to balance a varied set of objectives, including:
 - Significant energy savings
 - Product performance maintained or enhanced
 - Purchasers can recover investment in increased efficiency within a reasonable time period
 - Efficiency can be achieved through one or more technologies; qualifying products offered by more than one manufacturer
 - Energy consumption can be measured and verified with testing
 - Label provides meaningful differentiation

Specification Development Cycle



Overview of Draft 2 V6.0



- Retains optional connected functionality criteria and 5% allowance for standard dishwashers.
- Amended connected criteria in consideration of sanitization cycles and soil-sensing operations.
- Minor revisions to definitions, significant digits/rounding.
- Retains standard dishwasher criteria.
- Proposes revised energy and water criteria for compact dishwashers.
- Strongly encourages reporting of cleaning performance data to inform EPA (voluntary).
- Effective date would be 9 months after the Version 6.0 specification is finalized.

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Temporary Appliance Load Reduction (TALR)



- In Draft 2 Version 6.0, in response to comments dishwashers are exempted from providing a TALR response during NSF 184 compliant sanitization cycles
 - Sanitization cycles involve the need to accrue NSF Heat Unit Equivalents, without interruption.
 - If sanitization is interrupted, the cycle is not likely to comply with NSF 184, impacting consumer expectations, or
 - Sanitization could be re-started, resulting in increased energy and water use and possibly damaging dishware.

Temporary Appliance Load Reduction (TALR)



- In Draft 2 Version 6.0, dishwashers are allowed up to 60-seconds to respond after receiving a signal
 - Manufacturers are encouraged to develop products that respond immediately, whenever possible
 - The delay is intended to prevent interruption of most soil-sensing operations
 - Interruption of soil sensing can lead to increased energy and water consumption

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Definitions



- Amended footnote 1, clarifying that the definition of consumer product is an abbreviated version of the CFR definition.
- Updated footnote for portable dishwashers to note that the applicable citation is ANSI/AHAM DW-1-2010 rather than ANSI/AHAM DW-1-2009.
- Throughout the specification, EPA has replaced the term “qualification” with “certification” to harmonize with other ENERGY STAR specifications.

Compact Dishwashers



- Draft 1 proposed compact criteria were 195 kWh/year and 2.6 gallons/cycle. Only two models, both dishdrawers, would meet these criteria.
- In response to stakeholder comments on Draft 1, EPA conducted more market analysis and outreach.
 - EPA continued to find that most countertop dishwashers have an energy consumption of 220 kWh/year and water consumption of 3.5 gallons per cycle.
 - The Draft 2 levels were relaxed and determined to be achievable for countertops utilizing a variety of methods, including:
 - Printed circuit board revisions
 - Efficient wash motors
 - Optimized wash cycles
 - Additional insulation

Draft 2, Compact Criteria



- Draft 2, ENERGY STAR criteria for compact residential dishwashers:

Product Type	Annual Energy Consumption (AEC) _{BASE} (kWh/year)	Water Consumption (gallons/cycle)
Compact	203	≤ 3.1

- Only standard dishwashers are eligible for optional connected functionality and 5% connected allowance.
 - EPA is not aware of demand response programs seeking to target compact dishwashers.
 - EPA is not aware of any manufacturers seeking to add connected functionality to compact dishwashers.

Compact Consumer Payback



	Per Unit Total Savings (\$)		Manufacturing Cost Per Unit(\$)		Estimated Payback (Years)
	Annual	Lifetime	Direct Cost	Estimated Retail Cost	
Compact	2.51	30.12	7.40	11.50	4.6

- EPA stakeholder outreach found there are multiple, low-cost methods to reach the proposed level for countertop products.
- Estimated manufacturing cost for incorporating technical options is \$7.40.
 - Translated estimated retail cost is \$11.50.

Cleaning Performance – Voluntary Reporting



- The Test Method for Determining Residential Dishwasher Cleaning Performance was finalized in Feb 2014.
- Draft 2 Version 6.0 includes voluntary reporting of cleaning performance data.
 - Reporting of the Per-Cycle Cleaning Index for each test cycle consistent with sampling requirements in Section 4B.
- Voluntary reporting is expected to:
 - Enable test labs to gain experience with the test method.
 - Enable EPA to better understand how cleaning performance varies with respect to efficiency.
- Manufacturers are encouraged to work with their CB or supply data directly to the program.
- EPA will mask data before sharing with stakeholders.

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Anticipated Timeline for Version 6.0 Spec Revision



June 17, 2014	Draft 2, Version 6.0 Specification Released
July 9, 2014	Stakeholder Webinar (Today)
July 22, 2014	Comment Period Closes on Draft 2 Specification
August 2014	Final Draft Specification Distributed and Comment Period
October 2014	Final V6.0 Specification Released
July 2015 (estimated)	Final V6.0 Specification Takes Effect

- EPA welcomes all partner and stakeholder comments **by July 22, 2014**
- Comments should be submitted in writing to appliances@energystar.gov

Questions?

Contacts



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