



# **ENERGY STAR<sup>®</sup>**

## **Commercial Clothes Washers**

*Version 6.0 Draft 1 Specification*  
**Stakeholder Webinar**  
**August 23, 2011**

# Agenda



<p><b>Introduction – Welcome/Goals</b></p>	<p>Amanda Stevens, U.S. EPA</p>
<p><b>Commercial Clothes Washer Draft 1, Version 6.0 – Presentation &amp; Discussion</b></p>	<p>Ryan Fogle, D&amp;R International</p>
<p><b>Conclude &amp; Next Steps</b></p>	<p>Amanda Stevens, U.S.EPA</p>

# Meeting Goals

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1. Highlight proposed changes in the Draft 1, V6.0 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.

# Program Updates



- 2009 Memorandum of Understanding (MOU) clearly defines roles and responsibilities:
  - EPA is lead for brand management including setting and revising specifications.
    - 20 specification revisions expected to be completed by late 2011/early 2012.
  - DOE provides technical support, including product testing and test procedure development.
    - 8 test procedures expected to be completed in 2011.
- Third Party-Certification began January 1, 2011
  - All residential and commercial clothes washers are 3<sup>rd</sup> party certified.
  - More information available at [www.energystar.gov/testingandverification](http://www.energystar.gov/testingandverification).

# Maintaining Brand Integrity through Regular Spec Revisions



- MOU trigger for specification reviews
    - “For appliances and other product categories with longer-lived product models, specifications will be reviewed for a possible revision at a **minimum of every three years** or once the market share for ENERGY STAR qualifying products reaches **about 35%**.”
- Source: [www.energystar.gov/mou](http://www.energystar.gov/mou).
- Additional factors that drive specification revisions:
    - Federal Standards
    - Innovation

# ENERGY STAR Guiding Principles



- ENERGY STAR criteria are designed to balance a varied set of objectives, including:
  - Significant energy and/or water savings
  - Cost effective
  - Energy consumption that can be measured and verified with testing
  - Equivalent or enhanced functionality and performance
  - Achievable through several technology options; at least one of which is non-proprietary
  - Label provides meaningful differentiation

# Specification Development Cycle



# V6.0 Criteria Revision Drivers



- New ENERGY STAR program requirements (Version 5.1) went into effect January 1, 2011:
  - Criteria:  $MEF \geq 2.0$ ;  $WF \leq 6.0$
- Federal standards for commercial clothes washers will rise past current ENERGY STAR levels on January 8, 2013:
  - TL Washers:  $MEF \geq 1.6$ ;  $WF \leq 8.5$
  - **FL Washers:  $MEF \geq 2.0$ ;  $WF \leq 5.5$**
- ENERGY STAR criteria for commercial washers need to be strengthened in order for the program to continue to differentiate more efficient commercial washers.

# Definitions



- EPA is proposing to harmonize the Commercial Clothes Washer definition with the DOE definition (10 CFR § 431.152), to provide more clarity and consistency for stakeholders.
  - A soft-mounted front-loading or soft-mounted top-loading clothes washer that:
    - (1) Has a clothes compartment that:
      - (i) For horizontal-axis clothes washers, is not more than 3.5 cubic feet; and
      - (ii) for vertical-axis clothes washers, is not more than 4.0 cubic feet; and
    - (2) Is defined for use in:
      - (i) Applications in which the occupants of more than one household will be using the clothes washer, such as multi-family housing common areas and coin laundries; or
      - (ii) Other commercial applications.
- EPA notes there are several currently qualified ENERGY STAR commercial washers that exceed the DOE horizontal-axis upper capacity limit of 3.5 cubic feet. The proposal to harmonize with the DOE definition would exclude these products from ENERGY STAR qualification. **EPA seeks comment on this issue.**
- The Basic Model definition has also been amended to be consistent with 10 CFR § 430.2.
  - For further explanation on this definition, please refer to DOE’s [final rule](#).

# Test Requirements & Model Numbers



- Formalized current practice of allowing manufacturers to qualify products by using one of two sampling plans:
  1. A representative unit may be selected for testing based on the definition for Basic Model.
  2. Units may be selected for testing per the DOE sampling requirements defined in 10 CFR 429.15, which references 10 CFR 429.11.
- Model numbers used for ENERGY STAR qualified product submissions shall be the same as those submitted to FTC and DOE.

# Proposed Commercial Clothes Washer Criteria

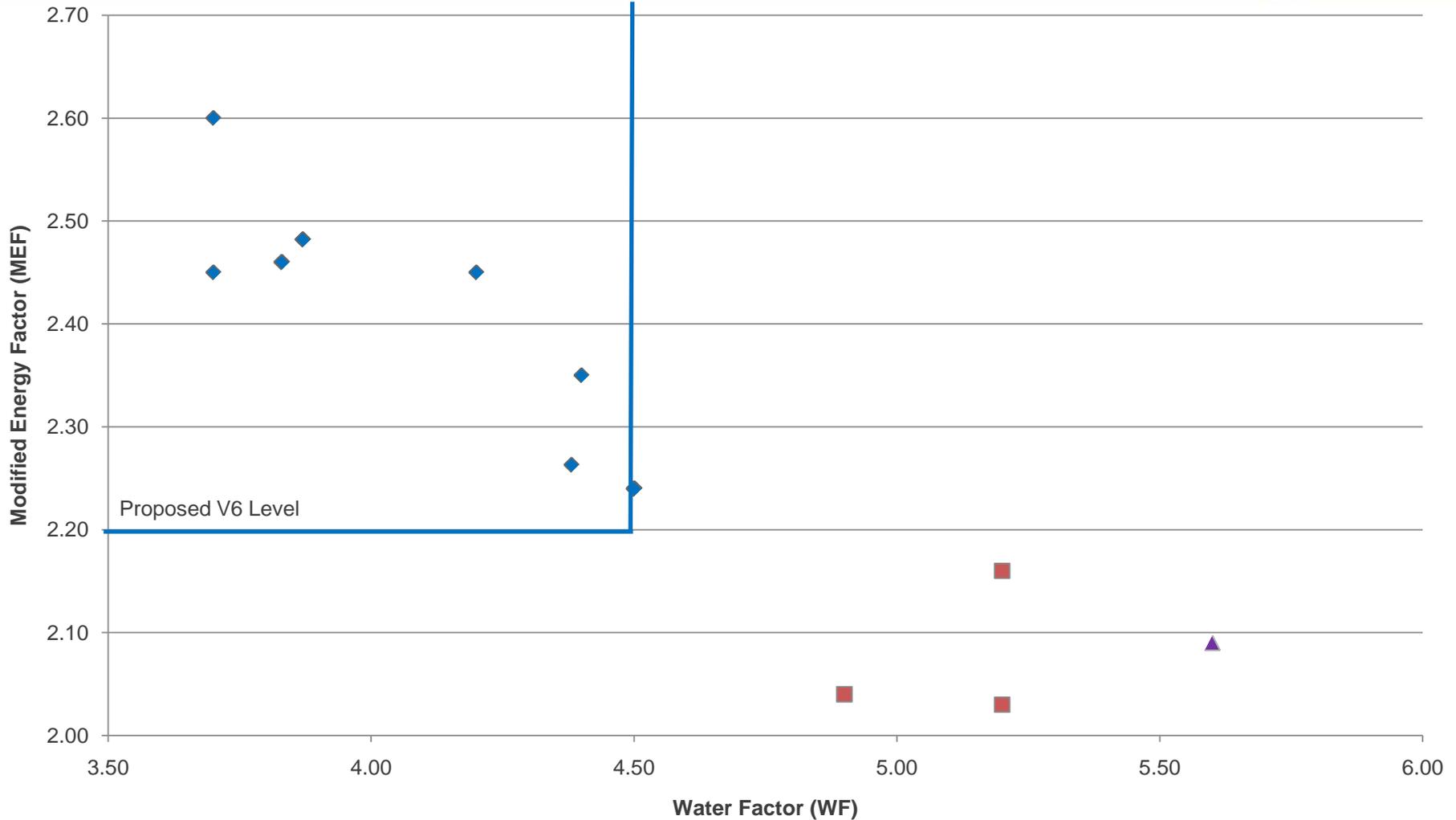


- Proposed ENERGY STAR criteria for commercial clothes washers:

Modified Energy Factor (MEF)	Water Factor (WF)
$\geq 2.2$	$\leq 4.5$

- EPA is not proposing revisions to the criteria for residential clothes washers through this specification revision.

# Commercial CW Scatter Plot



# Product Availability



Manufacturer	Number of Models Meeting 2013 Fed. Std.	Number of Models Meeting Proposed V6.0	Percentage Total of Models Meeting Proposed V6.0
Alliance Laundry	40	13	
Electrolux	4	2	
LG Electronics	2	2	
Whirlpool	5	5	
<b>SUM:</b>	<b>51</b>	<b>22</b>	<b>43%</b>

Note: EPA does not have data on the total number of models that will be on the market in 2013. Based on market research and manufacturer discussions the Agency believes the proposed levels will differentiate the most efficient models.

# Multi-Family Savings Analysis



Baseline	Fuel Type	Avg. Savings kWh/year	Avg. Savings 1000 gallons/year	Avg. Savings MMBTUs/year	Total Lifetime \$ Savings
Front Load	All-Electric	161 (\$18)	3.2 (\$24)	-	471
	All-Gas	-	3.2 (\$24)	0.7 (\$7)	351
Top Load	All-Electric	583 (\$64)	12.8 (\$96)	-	1,798
	All-Gas	-	12.8 (\$96)	2.4 (\$26)	1,373

**Note:** kWh per year calculated using the MEF formula and 1,241 cycles per year. Gallons of water saved per year calculated using WF and 1,241 cycles per year. Electricity rate of 10.89 cents per kWh, a water rate of 0.007501 cents per gallon, and a rate of 10.50 dollars per MMBTU used for dollar savings. Average lifetime for a unit for multi-family housing is assumed to be 11.25 years (per DOE Final Rule TSD). Baselines shown in the table above reflect models that will just meet the new 2013 federal standards (Top Loader: 1.60 MEF / 8.5 WF; Front Loader: 2.00 MEF / 5.5 WF).

# Laundromat Savings Analysis



Baseline	Fuel Type	Avg. Savings kWh/year	Avg. Savings 1000 gallons/year	Avg. Savings MMBTUs/year	Total Lifetime \$ Savings
Front Load	All-Gas	-	5.7 (\$36)	1.2 (\$11)	336
Top Load	All-Gas	-	22.7 (\$144)	4.3 (\$40)	1,310

**Note:** kWh per year calculated from MEF formula and 2,190 cycles per year. Gallons of water saved per year calculated using WF and 2,190 cycles per year. An electricity rate of 9.53 cents per kWh, a water rate of 0.00635 cents per gallon, and a rate of 9.25 dollars per MMBTU were used for dollar savings. Assumed lifetime of a product in a laundromat is 7.125 years (Per DOE Final Rule TSD). Baselines shown in the table above reflect models that will just meet the new 2013 federal standards (Top Loader: 1.60 MEF / 8.5 WF; Front Loader: 2.00 MEF / 5.5 WF).

# Estimated Payback Period



Baseline	Application	Estimated Annual Savings	Estimated Payback Period (years)
Front Load	Laundromat	\$47	1.3
	Multi-Family	\$31-\$42	1.5-2
Top Load	Laundromat	\$184	2.6
	Multi-Family	\$122-\$160	3-3.9

Note: Cost differences were estimated from data in the latest DOE TSD, using the new 2013 Federal standard levels as baselines. Estimated annual savings range includes savings from gas, water, and electricity, as applicable.

# Cleaning/Rinse Performance



- During EPA's initial discussions with stakeholders, some raised concerns regarding diminished commercial washer performance at higher efficiency levels.
  - Most stakeholders, however, have indicated that cleaning performance did not need to be addressed in this current specification revision.
- As a result, EPA is not planning to propose cleaning and/or rinse performance requirements in the Version 6.0 revision.
- EPA welcomes feedback on the possibility of incorporating a cleaning and/or rinse performance requirement into the ENERGY STAR program requirements at some future point in time, including applicable industry test methods and their status.

# Anticipated Timeline for Version 6.0 Spec Revision



July 28, 2011	Draft 1, Version 6.0 Specification Released
August 23, 2011	Today's Stakeholder Webinar
August 29, 2011	Comment Period Closes on Draft 1 Specification
October 2011	Final Draft Specification Distributed, Stakeholder Webinar or Meeting, and Comment Period
November 2011	Final Specification Posted
January 8, 2013	Final Specification Effective

- EPA welcomes all partner and stakeholder comments by August 29, 2011
- Comments should be submitted in writing to [appliances@energystar.gov](mailto:appliances@energystar.gov)

# Contacts

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