



# **Clothes Washers: Defining Key Aspects of ENERGY STAR<sup>®</sup> Customer Satisfaction**

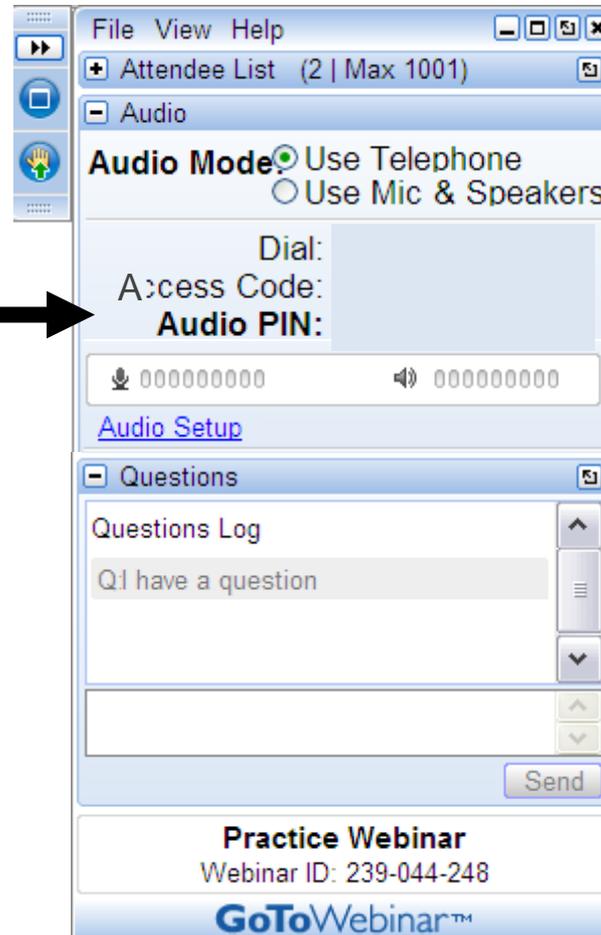
**Melissa Fiffer, U.S. EPA  
Roadmapping Webinar  
February 24, 2016**

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## Appliance Roadmapping Goals

- Build on more than 20 years of partnership to foster the future success of the ENERGY STAR program for appliances
- *Look ahead creatively to the next five years, with the goal of maintaining an ENERGY STAR appliance program that delivers on consumer expectations for performance and efficiency*
- Establish pathways to further engagement between EPA ENERGY STAR, appliance manufacturers, retailers and energy efficiency program sponsors on an ongoing basis
- Charting progress and identifying consumer value of connected functionality



## Appliance Roadmapping: Where are we now?

### Late 2015

- Kick-off session at ENERGY STAR Products Partner Meeting
- Launch of roadmapping web site
- Release of draft outline of upcoming appliance spec revisions

### Winter/Spring 2016

- Webinars scheduled for Jan-April on topics inc. customer satisfaction with ENERGY STAR appliances.
- We are open to exploring other topics of mutual interest to EPA, utilities, manufacturers, and retailers.
- We are open to forming working groups to continue to conversation on any of the webinar topics where there is more in-depth interest.

### Summer 2016

- We expect to culminate the appliance roadmapping effort with an in-person meeting in summer 2016.

### Fall 2016

- We will report highlights and shared accomplishments at the Oct 2016 ENERGY STAR Products Partner Meeting.



## Agenda for Today's Webinar

- ENERGY STAR and clothes washer performance
- Discussion of key clothes washer performance factors
  - Abroad
  - In the U.S. market
- Discussion of clothes washer technology and features
- Next steps for clothes washer roadmapping

## ENERGY STAR Clothes Washer Criteria



- Our goal: Use ENERGY STAR to promote energy efficient appliances that do not compromise on performance.
  - ENERGY STAR criteria provide consistent definitions and approaches to achieve energy savings.
  - ENERGY STAR is a trusted resource that can help consumers find these advanced products and identify the benefits they offer.
- Reminder: ENERGY STAR labels both residential and commercial models.
  - Commercial washers include those found in multifamily housing common areas or laundromats.



# Clothes Washer Performance Considerations

Energy use

Water use

Capacity

Cleaning  
ability

Gentleness

Rinsing ability

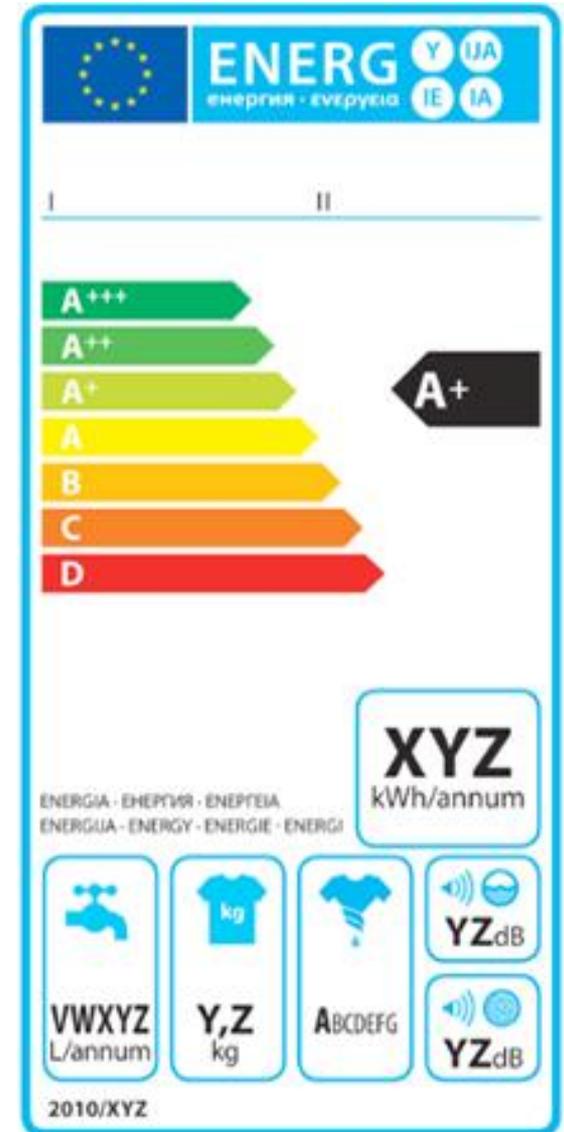
Cycle time

Spinning  
ability/  
Moisture  
removal

Noise

## Key Performance Factors in Other Countries

- All European washing machines are required to have an A rating in washing performance with the European Union Energy Label (> 3kg). Label includes:
  - Noise emission
  - Spin-drying efficiency
  - Capacity
  - Annual water consumption
- Australia Water Efficiency Labelling and Standards (WELS) program includes requirements for:
  - Soil removal
  - Water extraction
  - Severity of wash
  - Rinse performance





## Discussion – Key Performance Factors in the U.S.



### What factors are most important to U.S. consumers?

- Cleaning
- Rinsing
- Noise
- Energy Efficiency
- Water Efficiency
- Cycle time
- Gentleness



## Highlights of Clothes Washer Technology and Features

- Sensors: absorption, load composition, size
- Accelerometers
- Improved motors
- Improved temperature control
- Gray water rinse
- Highest spin speeds
- Water flow meters
- Fuzzy logic
- Recirculation pumps
- More precise chemical dispensing
- Tachometer
- More mechanical action
- More robust suspension system
- Larger capacities
- Connected features for laundry pair
- Added cycle options for fast washing, wool handling, etc.
- Added wash compartments for delicates

How might these technologies and features impact efficiency? Cost? Performance?

Are there other market trends we should be aware of?



# Discussion – Clothes Washer Closing Comments

## Next Steps in the Clothes Washer Roadmapping Process



- Further engagement between EPA ENERGY STAR, appliance manufacturers, retailers and energy efficiency program sponsors:
  - Working group on clothes washer performance?
  - Additional webinars?
  - In person meetings?
- How can ENERGY STAR help promote performance testing in clothes washers?



## Other Upcoming Roadmapping Webinars

- *Collaborating on Consumer Messaging: Educating on Efficient Product Use and Replacement/Recycling*  
**March 9, 2016 from 1:00-3:00pm Eastern**
- *Dishwashers: Defining Key Aspects of ENERGY STAR Customer Satisfaction*  
**March 23, 2016 from 1:00-3:00pm Eastern**
- *Connected Appliances: Continued*  
**April 7th, 2016 from 1:00-3:00 pm Eastern**



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*Thank you for participating!*

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