

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



OFFICE OF
AIR AND RADIATION

July 17, 2012

Dear Clothes Dryer Manufacturer or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) is pleased to announce the launch of an ENERGY STAR[®] specification process for clothes dryers. The purpose of this letter is to provide background on the ENERGY STAR program, explain the Program's interest in clothes dryers, discuss EPA's current thinking regarding this product category and relay an anticipated timeline for clothes dryer specification development.

ENERGY STAR is a voluntary, public-private partnership. More than 2,000 manufacturers currently participate in the program, qualifying over 40,000 product models across more than 65 product categories, including a broad array of appliances, heating and cooling equipment and consumer electronics and information technology products. (A complete list of ENERGY STAR products can be found at www.energystar.gov). More than 85% of Americans nationwide recognize the label, with more than 40% of households reporting that they knowingly purchased a qualified product within the past year.

The ENERGY STAR program benefits partners by benefiting their customers. In 2011 alone, Americans, with the help of ENERGY STAR, prevented 210 million metric tons of greenhouse gas emissions—equivalent to the annual emissions from 41 million vehicles—and saved \$23 billion on their utility bills. Consistent with the commitment to helping consumers save money and reduce their environmental impact, EPA adds new products to the ENERGY STAR product portfolio as compelling new opportunities arise. According to the Energy Information Agency (EIA), clothes dryers account for about 4.3% of total residential energy use in the U.S. In fact, they are one of the largest end-use loads in the homes for which there is no voluntary or mandatory label in the U.S. The EIA's 2009 Residential Energy Consumption Survey notes there are approximately 90.2 million households in the U.S., with clothes dryers, representing nearly 80% of all households. EPA estimates that clothes dryers consume about 43 billion kilowatt hours of electricity and 445 million therms of natural gas each year, leading to annual carbon dioxide emissions of approximately 32 million metric tons. These estimates are likely conservative as they do not factor in the additional energy associated with drying more challenging real-world clothing loads instead of test cloths, and the HVAC impacts from clothes dryers, where applicable.

Despite being a significant energy user, the efficiency of clothes dryers sold has traditionally not varied appreciably. This has begun to change as new clothes dryer technology, such as heat pumps, have been introduced in some markets, including Europe. The Super Efficient Dryer Initiative (SEDI) was formed in 2010 with a goal of bringing super high efficiency dryers to the North American market. Building on this effort, last year EPA announced that Advanced Clothes Dryers had been chosen as one of the ENERGY STAR Emerging Technology Award Categories.

The Agency's preliminary estimates suggest highly efficient clothes dryers could reduce CO₂ emissions by 32-34% when compared with standard electric models. The interest in introducing heat pump and other advanced technologies to the U.S. has in turn helped to spur further innovation in more traditional clothes dryer technologies. Based on these developments, the potential for cost-effective savings estimated in the Agency's Scoping Report for Clothes Dryers¹ and subsequent conversations with manufacturers and other stakeholders, EPA believes there are new opportunities to help consumers recognize the more efficient products in the marketplace and to reward manufacturers who manufacture and develop more efficient models.

Version 1.0 Specification & Test Procedure

In the Draft 1 Version 1.0 specification, EPA plans to reference the latest DOE clothes dryer test procedure found in 10 CFR Part 430, Appendix D1, published on January 6, 2011.² Compared to the current Federal test procedure for which compliance with Federal minimum energy performance standards is required until 2015, the amended test method includes measurements of standby/off mode energy consumption incorporated into a new energy efficiency performance metric (Combined Energy Factor, or CEF), provides guidelines for testing ventless dryers, and updates the testing conditions to better reflect current usage patterns. DOE also issued a Request for Information (RFI) in August 2011, initiating a new test procedure rulemaking to further investigate the effects of automatic cycle termination on clothes dryer energy efficiency. This rulemaking process is currently ongoing and EPA is closely working with the Department to follow its progress.

For the Version 1.0 specification, EPA intends to propose minimum efficiency requirements (expressed using CEF) for all residential dryer types, including ventless dryers, but excluding combination all-in-one washer-dryers (which have been under consideration through updates to the ENERGY STAR Clothes Washer specification). Most studies have focused on residential clothes dryers and their associated savings opportunities; EPA welcomes feedback on the possibility of also covering commercial clothes dryers in the Version 1.0 or a subsequent specification. EPA is also considering proposing a maximum drying time requirement to help ensure ENERGY STAR qualified dryers meet consumers' expectations, while still delivering excellent energy efficiency. EPA will work with DOE where additional considerations may warrant test procedure developments.

Consistent with ENERGY STAR's brand promise to help purchasers identify products that save energy and protect the environment while delivering the features and functionalities of value to them, and as part of ongoing efforts to update ENERGY STAR specifications, EPA has begun to evaluate "connected" opportunities for certain product categories covered by the ENERGY STAR program. The overall goal of this effort is to help advance the market for products with intelligent features in ways that deliver immediate consumer benefit as well as support a lower-carbon electricity grid over the long-term. EPA is planning to consider connected functionality in the Version 1.0 clothes dryer specification. EPA believes that the demand savings benefits for clothes dryers can be significant, as many electric dryers—which represent about 80% of the clothes dryer market—draw as much as 4,000 to 6,000 watts during the drying cycle. As a starting point for incorporating connected into a clothes dryer specification, the Agency plans to leverage the connected criteria that are being finalized with significant input from stakeholders through the refrigerator-freezer stakeholder process.

¹ http://www.energystar.gov/ia/products/downloads/ENERGY_STAR_Scoping_Report_Residential_Clothes_Dryers.pdf

² http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/aham2_tp_final_rule_notice_fr.pdf

Anticipated Version 1.0 Specification Development Timeline

As EPA moves forward with developing these new requirements, EPA will solicit input from all stakeholders on an ongoing basis via draft specifications, e-mail correspondence, and stakeholder meetings. EPA is planning to share a Draft 1 Version 1.0 ENERGY STAR Clothes Dryer specification for stakeholder review and comment in August 2012. In conjunction with this, EPA also plans to convene a stakeholder meeting to discuss this draft specification.

All EPA correspondence and specification documents will be posted throughout the specification development process to the ENERGY STAR Product Development Web page at www.energystar.gov/newspeccs.

Stakeholders that did not receive this letter via e-mail and are interested in receiving stakeholder mailings and notifications on clothes dryers should provide contact information to appliances@energystar.gov, requesting to be added to the contact list for clothes dryers.

The exchange of ideas and information between EPA, industry, and other interested parties is critical to the success of ENERGY STAR. Your input is very valuable during this specification development process. If you are not familiar with the ENERGY STAR Guiding Principles, you are encouraged to review them at www.energystar.gov/productdevelopment.

EPA welcomes the opportunity to discuss clothes dryers with stakeholders as EPA works toward a Draft 1 specification or at any time during the specification development process. As such, please contact Amanda Stevens, EPA, at stevens.amanda@epa.gov or (202) 343-9106; or Sean Southard, ICF International, at sean.southard@icfi.com or (202) 862-1585 to discuss this specification development process. Clothes dryer 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 ENERGY STAR. I look forward to working with you during the specification development process.

Sincerely,

A handwritten signature in cursive script that reads "Amanda Stevens".

Amanda Stevens, U.S. EPA
Product Manager
ENERGY STAR Appliances