

Summary and Response to Stakeholder Comments Received on the  
ENERGY STAR Program Final Draft Version 1.0 Clothes Dryer Specification

REF NO.	Topic	Comment Summary	ENERGY STAR Response
1	Definitions	A stakeholder supported the expansion of the clothes dryer definition to include full-size ventless electric clothes dryers as well as 120V ventless compact electric dryers. However, noted that some heat pump dryers that are defined as 'compact' in Europe due to their dimensions are actually rated for a larger volume of clothing than a typical North American standard and can show greater efficiency when drying a standard load rather than a compact load. This stakeholder encouraged EPA to work with DOE and manufacturers to revise the defined compact category as well as its performance metric.	EPA is aware that outside of the North American market product size and capacity expectations are different. However, EPA relies on DOE developing a test method and test load capacity that is representative of the load cases seen in the North American market. EPA will continue to work with DOE to monitor market and consumer use to determine if modifications to the definition of "compact" are necessary as new products enter the marketplace
2	Scope	A stakeholder pointed out that indirectly heated dryer systems are not included in Table 1 (Base CEF) in the specification but are also not excluded products and requested clarification.	In defining the scope of the ENERGY STAR specification and setting efficiency criteria EPA intends to cover a broad mix of residential clothes dryer products currently in the market and new configurations that may be introduced to the market. EPA believes the product definitions are encompassing enough to allow for the introduction of new technologies based on source power and capacity. EPA will continue to monitor the market to ensure that clothes dryers with highly efficient technologies worthy of ENERGY STAR certification are able to be recognized

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3	Qualification Criteria	<p>A stakeholder opposed the drying time requirement citing that EPA proposed the requirement with no data or testing of the difference between dry time of a test load and a typical consumer load. Further noting that cycle length is a performance feature tied to consumer preference and is outside the scope of the ENERGY STAR program. This commenter noted that manufacturers are best suited to make the drying time determination since it is in their best interest to make products consumer will buy.</p> <p>Another stakeholder noted that the 80 minute drying time is reasonable but perhaps short for certain technologies. Two additional stakeholders supported the dry time limit of 80 minutes noting that a limit will avoid creating a loophole in the specification that would allow a manufacturer to increase dry time without limit to increase the efficiency, which could result in unsatisfied customers who will adjust their dryer settings to achieve faster drying times thereby negating potential field energy savings.</p>	<p>EPA has retained the 80 minute maximum drying time requirement in the Final Version 1.0 and believes that including a drying time requirement is important at this stage in order to help ensure that efficiency gains are not made entirely at the expense of much longer drying cycles that consumers may find unacceptable. While EPA does not want to instill include requirements that hinder manufacturers' flexibility to incorporate innovate designs, there is precedent within ENERGY STAR to include performance requirements that protect the integrity of the program.</p> <p>Based on the test cycle times of products included in the ENERGY STAR Draft 2 data set and the subsequent manufacturer conversations regarding acceptable cycle lengths, EPA believes that the 80 minute time limitation will help to guard against excessive cycle lengths but will not preclude products with new energy savings technologies (e.g., heat pumps or hybrid heat pumps) from participating. EPA sees 80 minutes as a backstop.</p> <p>EPA will continue to monitor the market and review new data as it becomes available, to further evaluate drying time, efficiency and consumer expectations.</p>

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4	Qualification Criteria	<p>Several stakeholders commented on the informational materials that must be shipped with ENERGY STAR Qualified clothes dryers and suggested that EPA provide education to consumers regarding cycles and options that use more or less energy (e.g., longer, low heat drying cycles tend to use less energy). They also noted that the statement about how much energy savings will be realized by Energy Saver Mode is seen as an example of a type of information that a manufacturer could provide rather than a required statement. They stated that they do not oppose EPA listing this as an example but would oppose this being a specific requirement, as this statement could require additional testing and more generic statements would not force additional testing.</p> <p>Another stakeholder supported EPA's proposal to require that product materials include information on the energy use of various cycles including which cycles were used to achieve the ENERGY STAR rating. They also suggested that EPA require that information be provided for all setting configurations (in terms of ranking the cycles from lowest to highest energy use), rather than only identifying particular low or high energy use modes. In addition, they recommended that dry time be listed in the brochure to allow users to understand the tradeoffs between dry time and energy use.</p>	<p>EPA has retained the user information requirements in the Final Version 1.0 specification. Based on stakeholder feedback EPA has clarified in the final specification that the energy savings statements included in Section 3.C are examples and not requirements. EPA believes this is a first step toward broader consumer education regarding the relationship between cycle selection and energy use. EPA plans on working with manufactures and efficiency advocates to develop consumer messaging for the ENERGY STAR website which will be another resource to educate consumers on the relationship between energy use, cycle selection, and cycle time.</p>

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5	Qualification Criteria	<p>Two stakeholders supported the removal of the requirement to report the manufacturer-defined fastest drying cycle because of the testing burden it would have caused.</p> <p>Conversely, two other stakeholder contend the decision to remove this requirement, noting that manufacturers may offer cycles that bypass the use of more efficient technologies in favor or shorter cycle times that would use more energy if selected. Stakeholder recommends that EPA continue to work with manufactures and efficiency advocates to develop plans to evaluate how products are being used in the North American market and ensure energy savings are being realized</p>	<p>Based on feedback to the Supplemental Proposal that requiring the 'fastest cycle' to be tested would substantially increase test burden for vented clothes dryers, EPA was concerned that the value from this proposed test/report requirement would not outweigh the added test burden. EPA has added new language in Section 3.C to make clear the Agency's intent that products provide consumers with a satisfactory experience in the tested mode so as to encourage continued use and consistently yield both savings and environmental benefit. EPA is also aware that efficiency organizations are pursuing plans that would involve additional testing of some clothes dryers (i.e., additional modes/settings, load types) in test labs and field settings. These efforts may yield new information on the need or benefit from testing additional dryer modes that could be considered by EPA, DOE and stakeholders during a future specification revision.</p>
6	Connected Functionality	<p>A stakeholder requested that EPA and DOE ensure the consistency between DOE definitions and EPA's connected functionality requirements. For example, according to the DOE definition of off-mode, dryers would not be able to report information when in off-mode.</p> <p>Another stakeholder agreed that technology-neutral connected functionality requirements will allow integration between home appliances and a smarter grid, however this commenter requested that EPA and DOE develop a test procedure for connected functionality and provide an incentive for this functionality that is only proportional to the energy efficiency benefit provided.</p>	<p>EPA acknowledges that DOE defines "off" and "standby" as separate functional modes. EPA has revised the operational status reporting language in the Version 1.0 specification in response to this feedback. EPA also notes that while the criteria language includes examples of operational status reporting, this language is provided, not as criteria, but to help guide manufacturers.</p> <p>The Agency agrees it is important that the ENERGY STAR efficiency requirements provide cost-effective savings for consumers. With these new optional connected criteria, EPA seeks to recognize new opportunities for energy savings and convenience, i.e., through diagnostics/alerts and feedback on energy use and ultimately grid benefit too.</p>

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7	Test Requirements	<p>Certain stakeholders opposed referencing Appendix D2 as the test procedure for ENERGY STAR certification in Version 1.0 of the clothes dryer specification. Instead these stakeholders recommended EPA should instead reference Appendix D1, which is the test procedure that will be mandatory for compliance to the minimum federal efficiency standards when Version 1.0 becomes effective. Stakeholders stated that it will be harder for consumers to compare ENERGY STAR qualified units with other units and it is possible that ENERGY STAR dryers may appear to be less efficient than a non-ENERGY STAR clothes dryer as a result of the different test methods. This is especially true in Canada where there is an EnerGuide label which is currently harmonized with Appendix D. In addition, stakeholder noted that referencing the Appendix D2 test method would create additional burden for technicians to be knowledgeable of two different test procedures for a period until which Appendix D2 would be mandatory for federal compliance.</p> <p>Certain additional stakeholders strongly supported the proposal to use the Appendix D2 test method because it measures the effectiveness of automatic termination controls and the energy savings potential has been demonstrated by laboratory testing. Absent the use of Appendix D2 certain partners would not be able to support the validation of energy savings to rebate program regulators, thereby not being able to support financial rebates for ENERGY STAR certified clothes dryers. Stakeholders in support of using Appendix D2 recommend that EPA continue to look for opportunities to better reflect consumer usage and "real world conditions" (e.g. more diverse test cloth mix)</p>	<p>The Final Version 1.0 specification continues to reference the DOE clothes dryer test procedure located in Appendix D2. This test procedure provides more accurate energy use and relative energy-efficiency comparisons and has been supported by a variety of stakeholders, including utilities, efficiency organizations and a manufacturer. The test procedure rewards manufacturers who use improved automatic termination control technology to reduce wasted energy at the end of the drying cycle, while also reducing wear and tear on clothing. Based on all the feedback received, EPA believes the benefits from measuring and rewarding products with more effective automatic termination controls are large while the potential for confusion resulting from the early use of Appendix D2 is small. EPA is in contact with its Canadian counterpart NRCAN and NRCAN has committed to work with EPA to educate Canadian consumers regarding the benefit delivered by ENERGY STAR dryers, particularly around superior auto termination as captured by D2.</p>

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8	Effective Date	Several stakeholders noted that they can only support an effective date of January 1, 2015 if the test procedure is harmonized with the mandatory test procedure - Appendix D1. They requested that if EPA continues to reference Appendix D2, a new effective date be set. Two other commenters supported the January 1, 2015 and also allowing for early certification prior to this effective date citing that multiple manufacturer's will be able to meet the standards by mid-2014.	EPA has retained the January 1, 2015 effective date. Based on feedback provided, EPA anticipates that limited set of models will meet the requirements under this specification in advance of 2015; however, to the extent there are any, early qualification will be available. EPA is preparing the qualified product list infrastructure now and anticipates completing it in June.
9	Future Specifications	A stakeholder applauded EPA's efforts to accommodate rapid changes in efficiency and technology.	EPA appreciates this comment and will continue to monitor the market to ensure that ENERGY STAR is able to recognize highly efficient technology's as they are introduced