ENERGY STAR® Most Efficient 2020 Stakeholder Comments

Topic	Comment Summary	EPA & DOE Responses
General		
ENERGY STAR Most Efficient Program	One stakeholder noted the lack of posted data and stated that the ENERGY STAR Most Efficient criteria development process should align with that articulated in the Guiding Principles for the ENERGY STAR program.	ENERGY STAR Most Efficient is designed to identify and advance highly efficient products in the marketplace. ENERGY STAR Most Efficient complements the base ENERGY STAR program, identifying for a set of early adopter consumers and energy efficiency program sponsors, the most energy efficient of the ENERGY STAR certified products. The ENERGY STAR Most Efficient program completes annual reviews/revisions to ensure the program recognizes the best of ENERGY STAR for the segment of the market that prioritizes efficiency above all else. EPA has posted supporting data for the criteria provided for revision - for freezers and room air conditioners in the Proposed ENERGY STAR Most Efficient 2020 Recognition Criteria Stakeholder Webinar slide deck.
ENERGY STAR Most Efficient Program	One stakeholder stated that EPA should continue to consider establishing minimum acceptable functionality levels in future ENERGY STAR Most Efficient recognition criteria and ENERGY STAR specifications.	Ensuring that product performance is not compromised even as efficiency improves is a key tenet of ENERGY STAR. EPA continues to monitor the relationship between energy and water use and cleaning performance.
ENERGY STAR Most Efficient Program Categories	One stakeholder recommends EPA add room air cleaners and sound bars to the ENERGY STAR Most Efficient product portfolio. One stakeholder requested that EPA include criteria for electric heat pump hot water heaters for ENERGY STAR Most Efficient 2021.	EPA is in the final stage of revising the ENERGY STAR requirements for Room Air Cleaners and will focus on driving uptake of these more efficient products in 2020. Similarly, EPA is revising the ENERGY STAR sound bar requirements and new requirements will take effect in 2020. EPA notes the importance of recognizing heat pump hot water heaters. However, the current market share of heat pump water heaters is so small that segmenting the recognition criteria may be detrimental to our efforts to drive adoption of these products. EPA will continue to work to increase market share for these products.
Clothes Dryers		
Criteria	One stakeholder supports the proposed levels for clothes dryers. One stakeholder recommended EPA move towards a technology neutral, performance-based approach that would apply to all clothes dryers covered by the ENERGY STAR	EPA appreciates these comments. The ENERGY STAR Most Efficient Dryer criteria continue to recognize top performing models including heat pump models. EPA is working with partners to increase the prevalence of this technology in the market.

	Most Efficient recognition criteria, instead of the current practice of setting different efficiency criteria for electric and gas dryers. Furthermore, they suggest the performance criteria and efficiency levels be equivalent to the performance/efficiency of heat pump dryers. One stakeholder suggested that EPA require information from manufacturers about heat pump technology and include a field in the Qualified Products List for identification of such technology.	While no gas dryers currently meet the proposed level, based on stakeholder input, EPA is aware that multiple feasible technology options are currently available. EPA will continue to encourage partners to report heat pump status when certifying dryers, making it easier for utilities to incentivize these technologies in the market.
Clothes Washers		
Testing Method	One stakeholder expressed concern that the test method as the basis for the ENERGY STAR Most Efficient cleaning performance criteria is not repeatable and reproducible enough for use in the underlying specification. Therefore, it should not be used for the ENERGY STAR Most Efficient program either.	DOE notes that the proposed test method is based on AHAM's HLW-1-2013 test method; with the exception of using DOE test cloth instead of 100% cotton towels, sheets, and pillowcases as the load material. DOE also notes that the AHAM HLW-1-2013 test method is derived from the IEC 60456 test method, which is used by the European Union (EU) and other regions for measuring clothes washer performance. HLW-1-2013 and IEC 60456 are among the best available and well-established test methods in the world for measuring clothes washer cleaning performance. By basing its test method on HLW-1-2013, which in turn is derived from IEC 60456, DOE is leveraging the decades of testing and experience that have gone into the development of these test methods. To the extent that concerns regarding repeatability and reproducibility persist in the current versions of these test methods, DOE expects that the IEC and AHAM procedures will continue to undergo regular revisions to provide further improvements in the test measurements. Such improvements would then be reflected in the DOE test method by updating DOE's references to the latest version of the AHAM test method. DOE notes that the repeatability and reproducibility associated with the IEC (and by extension, AHAM) cleaning performance scores is suggested by the following: • IEC Technical Report 62617 provides an "expanded uncertainty value" of +/- 0.04 (i.e. a confidence interval of +/- 4%) for the IEC 60456 cleaning performance measurement for front-loading washers. This expanded uncertainty value represents a confidence interval to assess measurements performed at multiple laboratories following reproducibility conditions. • EU verification requirements allow a 4% tolerance on the measured cleaning performance score (Commission Regulation 1015/2015, Annex III, Table 1). EPA has maintained the cleaning floor and the associated test method in the final recognition criteria.

		In addition, following the release of the Draft 1 Test Method, DOE analyzed confidential test data, which provides a comparison between DOE test cloth and AHAM 100% cotton load materials when performing the HLW-1-2013 test method. The test data yielded the following general conclusions: • The overall test results using DOE test cloth are extremely similar to results using AHAM 100% cotton load. • The repeatability of test results is such that the measured range of performance scores across multiple clothes washers is sufficiently larger than the run-to-run variation on an individual unit; i.e., the test method adequately differentiates product performance to identify cleaning performance trends among different models on the market. • The variation of the data indicated a repeatability confidence interval of approximately +/- 0.05 (i.e. 5%). Reproducibility could not be assessed by DOE because all of the tests were performed at a single laboratory. Additionally, DOE testing of commercial clothes washers in 2014 showed typical run-to-run variability in cleaning score was within a range of +/- 1.5 across the 3 cycle replications (out of a total cleaning score of around 90), which reflects better than +/- 2% variability. EPA has maintained the cleaning floor and the associated test method in the final recognition criteria.
Dishwashers		
Testing Method	One stakeholder expressed concern that the test method that is the basis for the ENERGY STAR Most Efficient cleaning performance criteria is not repeatable and reproducible enough for use in the underlying specification. Therefore, it should not be used for the ENERGY STAR Most Efficient program either.	EPA appreciates these comments, however EPA and DOE view these test procedures as having acceptable repeatability and reproducibility. Further, EPA is confident that as more and more models are tested using the cleaning performance test procedure, labs will continue to improve on repeatability and reproducibility. Thus, EPA plans to maintain the cleaning performance minimum and the use of the cleaning performance test procedure.
Criteria	One stakeholder opposed EPA's proposed performance criteria and reporting for dishwashers in the ENERGY STAR Most Efficient program. They stated that EPA should ensure that the specification levels they select do not threaten performance.	As a voluntary program, ENERGY STAR is successful only as long as consumers have a positive association with the label. On occasion, requirements are added to prevent trade-offs between efficiency and performance. The need to ensure performance takes on added significance in context of ENERGY STAR Most Efficient where the levels are more stringent.
Refrigerators/Freezers, Freezers, and Compact Refrigerators and Freezers		
Criteria	One stakeholder does not support the addition of criteria specifically for freezers because there is no cost or payback data to justify the proposed levels. Furthermore, it is unclear how many models would meet the proposed criteria if rated differently.	EPA has responded to the stakeholder who requested additional information, which has been added to the Proposed ENERGY STAR Most Efficient 2020 Recognition Criteria Stakeholder Webinar slide deck.

Room Air Conditioners		
Criteria	One stakeholder supports EPA developing ENERGY STAR Most Efficient criteria for room air conditioners. One stakeholder stated that EPA did not provide any analysis or data supporting its 45 dBA sound limit criteria for room air conditioners. In addition, EPA did not provide an explanation as to why a sound performance requirement is justified.	EPA appreciates these comments. EPA has responded to the stakeholder who requested additional information, which has been added to the Proposed ENERGY STAR Most Efficient 2020 Recognition Criteria Stakeholder Webinar slide deck.
Windows		
Criteria	One stakeholder expressed concern regarding the installation of ENERGY STAR Most Efficient window and door products. The stakeholder suggested that EPA consider using their installation requirements for ENERGY STAR Most Efficient windows to ensure that the windows perform as expected.	Thank you for your concern regarding the installation of ENERGY STAR window and door products. Currently, the ENERGY STAR Window, Door, and Skylight program requires manufacturers to provide installation instructions that include information and diagrams on best practices. These requirements were proposed and commented on by stakeholders over several cycles during the Version 6 specification revision. The commenter suggests that standard installation methods are inadequate to ensure expected window performance, and cites test results supporting the position; however, the commenter has not made detailed results available or provided specific recommendations for how to improve installation instruction requirements. EPA would be interested in reviewing any independent study of specific, non-proprietary installation guidance with documented performance impacts which could help ensure proper installation of all ENERGY STAR certified windows and doors.