

Appliance Standards Awareness Project
American Council for an Energy-Efficient Economy

August 12, 2024

Ann Bailey
Director, ENERGY STAR Product Labeling
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: ENERGY STAR® Most Efficient 2025 Proposed Criteria

Dear Ms. Bailey,

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP) and the American Council for an Energy-Efficient Economy (ACEEE) on the Energy Star Most Efficient (ESME) 2025 recognition criteria released on July 9, 2024. We appreciate the opportunity to comment.

We encourage EPA to consider increasing the ESME stringency for ceiling fans. In the proposed ESME criteria, EPA has not proposed to increase the efficiency levels for standard or hugger ceiling fans. However, EPA estimates that about 16% of models meet the current ESME levels for ceiling fans, which is higher than any other product under the proposed 2025 criteria. It appears that if EPA were to increase the ESME stringency of standard and hugger fans by 10%, there would still be nearly 70 standard and hugger models from 8 manufacturers meeting this revised criteria across the full range of typical blade diameters for each category. Therefore, we encourage EPA to consider increasing the ESME levels for ceiling fans.

We encourage EPA to consider revising the test criteria for ESME clothes dryers. Currently, EPA requires an additional dryer test to qualify for ESME; the dryer must be tested with an additional cycle with the dryness level set to "most dry", where it must meet the normal ENERGY STAR efficiency requirements on this "most dry" cycle to qualify for ESME. Since EPA is already requiring an additional test cycle for ESME clothes dryers, we encourage the Agency to consider an alternative test cycle that is more representative of typical use. We understand that a recent NEEA field study suggests that small load sizes and operation with eco-mode off are common settings. We believe that an additional test cycle using smaller load sizes and/or with eco-mode turned off are likely to result in more significant rank order changes in measured efficiency in comparison to the current "most dry" cycle.

We support updating the efficiency levels for clothes washers >2.5 cu. ft. EPA has proposed a modest update to the ESME levels for clothes washers >2.5 cu. ft.—a 6% increase in integrated modified energy factor (IMEF) and a 6% decrease in integrated water factor (IWF). We think that it makes sense to increase the stringency of the energy and water efficiency criteria for ESME 2024 to ensure that ESME continues to recognize the most efficient products in the market.¹

We support the proposed updates for dehumidifiers. EPA has recently released a final draft updated ENERGY STAR specification for dehumidifiers; for certain product categories, the integrated energy factor (IEF) criteria equals the 2024 ESME criteria.² We therefore think that a revision of the ESME criteria is appropriate for these categories of dehumidifiers (portable 25.01-50.0 pints/day and small whole-home systems) as well as the proposal to increase the stringency for the smallest portable units to continue to differentiate the most efficient products.

We encourage EPA to recognize only the truly most efficient air-source heat pumps (ASHPs) as part of ESME 2025. EPA has proposed to align ESME levels with the proposed CEE Tier 1 criteria for ASHPs, which specifies 16.0 SEER2 for all product classes and HSPF2 values of 7.5, 8.0, and 8.5 for package units (excluding cold climate), split systems (excluding cold climate), and cold climate systems, respectively. We understand that the CEE specification is expected to be finalized in the fall of 2024. We recognize that the ESME program is valuable to utilities offering rebate programs. However, it is not clear that the ESME designation should necessarily align with the CEE Tiers, which are used to determine 25C tax credit eligibility.³ The proposed ESME criteria would reduce the stringency of the cooling efficiency requirement (SEER2) for ducted split ASHPs by about 5%⁴ and weaken the heating efficiency requirements (HSPF2) for ducted split ASHPs, ductless HPs, and ductless cold climate heat pumps (CCHPs) by 1%, 11% and 10.5%, respectively.⁵ We therefore encourage EPA to consider maintaining the current ESME 2024 specifications.

¹ EPA showed that 39 large capacity models meet the ESME 2024 criteria, and 12 models meet the proposed criteria.

<https://www.energystar.gov/sites/default/files/2024-07/2025%20ES%20ME%20Proposal%20Webinar%20Slides.pdf> f. p. 13.

² ENERGY STAR v6.0 and ESME 2024 both have minimum IEF requirements of 2.01 for portable dehumidifiers (25.01 to 50.0 pints/day) and 2.22 for whole home dehumidifiers (≤8 cu.ft). EPA has proposed to increase these stringencies for the 2025 ESME.

<https://www.energystar.gov/sites/default/files/2024-07/ENERGY%20STAR%20Dehumidifiers%20V6.0%20Final%20Draft%20Specification.pdf>;

<https://www.energystar.gov/sites/default/files/asset/document/Dehumidifiers%20ENERGY%20STAR%20Most%20Efficient%202024%20Final%20Criteria.pdf>

³The ENERGY STAR database does have a field to allow consumers to filter “tax credit eligible” models, and we encourage EPA to maintain that field.

⁴ Compared to the current ESME 2024 criteria.

⁵

<https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20Version%206.1%20Central%20Air%20Conditioner%20and%20Heat%20Pump%20Final%20Specification%20%28Rev.%20January%20%202022%29.pdf>

⁶ In the QPL for Energy Star v6.1, for CCHPs, split system models have a HSPF2 up to 11.5 and mini- or multi-split models have a HSPF2 up to 30.

https://data.energystar.gov/Active-Specifications/ENERGY-STAR-Certified-Air-Source-Heat-Pumps/w7cv-9xit/about_data?_gl=1*_2rim31*_ga*MTc0NjkyMzkwOC4xNzA5ODQzNDQ2*_ga_S0KJTVVLQ6*MTcyMjk1Njk2OS42Ni4xLjE3MjI5NTgxMjMuMC4wLjA.

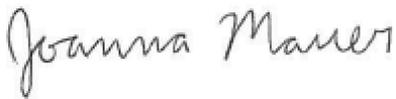
We encourage EPA to increase the stringency of the room air cleaner criteria for all product capacities. We think that it makes sense to align the room air cleaner metrics with those used in the DOE standards, and we support EPA's proposed increase in the ESME criteria for the largest-capacity product category. However, given the availability of models with IEFs much higher than the proposed criteria for the small (up to about 10 IEF) and medium product classes (up to about 13 IEF), we encourage EPA to also consider an increase in stringency for the small and medium categories.⁷

We support the proposed update to the ventilating fans criteria. EPA is proposing to update the efficacy criteria for bathroom/utility room fans to be a function of diameter (or depth) of the duct in inches. As EPA shows, for a given duct diameter (or depth), there is a range of efficacies, with the high end of the range increasing with diameter.⁸ This trend suggests that a linear equation is appropriate for these products.

We encourage the reporting of other features for refrigerators and freezers. The recent DOE Final Rule for refrigerators and freezers permits energy use allowances for three configurations: 1) products with a transparent door; 2) products with a door-in-door (without a transparent door); and 3) products with added external doors (without a transparent door or door-in-door). We encourage EPA to require reporting of these features as part of the ESME 2025 specification.

Thank you for considering these comments.

Sincerely,



Joanna Mauer
Deputy Director
Appliance Standards Awareness Project



Matt Malinowski
Director, Buildings Program
American Council for an Energy-Efficient
Economy

7

<https://www.energystar.gov/sites/default/files/2024-07/2025%20ES%20ME%20Proposal%20Webinar%20Slides.pdf>
f p. 18.

8

<https://www.energystar.gov/sites/default/files/2024-07/2025%20ES%20ME%20Proposal%20Webinar%20Slides.pdf>
f p. 54.