

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

February 14, 2025

Steve Leybourn
Product Manager, ENERGY STAR Appliances
U.S. Environmental Protection Agency

RE: Draft 1 Clothes Dryer Version 2.0 Specification, Draft 1 Clothes Washers Version 9.0 Specification, and Draft 1 Combination Laundry Products Version 1.0 Specification

Dear Mr. Leybourn:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP) and the American Council for an Energy-Efficient Economy (ACEEE) on the draft ENERGY STAR specifications for the revised clothes dryer version 2.0 specification, revised clothes washer 9.0 specification, and the new combination laundry product draft specification released on January 15, 2025.¹ We appreciate the opportunity to comment.

We are pleased that EPA has moved forward with updated draft specifications for clothes washers and dryers along with development of a new specification for combination laundry products. The market for washers and dryers has evolved over the last several years, particularly in regard to heat pump dryers, top-loading washers, and all-in-one products. Furthermore, EPA estimates that as of 2023, 42% of clothes dryer shipments and 59% of clothes washer shipments meet current ENERGY STAR levels, reflecting the need to update the specifications.² We are generally supportive of EPA's draft specifications for washers, dryers, and combination laundry products. However, we encourage EPA to consider a more stringent ENERGY STAR level for top-loading standard-size washers and to consider a supplementary small load test for clothes dryers.

We encourage EPA to consider a more stringent ENERGY STAR level for top-loading standard-size washers. For clothes washers, top-loading standard-size washers represent the greatest potential for energy, water, and cost savings since these products are generally less efficient than front-loading washers and make up about three-quarters of the market. In the draft specification for clothes washers, EPA is proposing a modest increase in the energy efficiency level for top-loading washers (2.06 to 2.20 IMEF).³ However, DOE's analysis for the 2024 Direct Final Rule indicates that a higher level, the 2015-2017 CEE Tier 1 level (2.38 IMEF), is cost-effective for purchasers. DOE initially proposed this level in the clothes washers rulemaking, and it would appear to be a reasonable level for ENERGY STAR v9.0. DOE's analysis also shows that this level would be cost-effective relative to the current ENERGY STAR level; the Department's analysis estimated that the average discounted lifetime operating cost savings at this higher level relative to the current ENERGY STAR level would be \$63, while the estimated incremental

¹www.energystar.gov/products/clothes_dryers/clothes_dryer_products_website_version_2_0
www.energystar.gov/clothes-washer-specification-version-9

²www.energystar.gov/sites/default/files/2024-11/2023%20USD%20Summary%20Report%20Revised%20111224_508_2.pdf

³p. 3. www.energystar.gov/sites/default/files/2025-01/ENERGY%20STAR%20Version%209.0%20Clothes%20Washer%20Draft%201%20Specification.pdf

cost is only \$18.⁴ Thus, we encourage EPA to consider a more stringent energy efficiency level—2.38 IMEF—for top-loading standard-size washers.

We support EPA’s clarification on Eco Mode use for dryer testing. In the v2.0 draft specification for dryers, EPA has added a test requirement stating that “when the cycle required to be tested under Appendix D2 is selected, the dryer shall not default to an eco mode or setting.” Absent this requirement, we are concerned that some models may be tested using an Eco Mode setting to meet ENERGY STAR even though users may often switch out of this cycle setting to a more energy intensive cycle that better meets consumer expectations (e.g., for load dryness). Thus, we support this proposed change as it should help ensure that dryers meeting the ENERGY STAR specification are doing so under cycle settings that are representative of typical consumer usage while still maintaining the option of an additional Eco Mode for efficiency-conscious consumers.

We encourage EPA to consider a supplementary small load test for clothes dryers. The Appendix D2 test procedure, used for ENERGY STAR certification testing, uses a single load size (8.45 lb.) for determining a dryer’s efficiency. However, a recent NEEA field study showed that small load sizes, defined as less than 6.3 lb., made up nearly 40% of dryer cycles.⁵ Importantly, previous NEEA testing also showed significant rank order changes in dryer efficiency when testing with a small load (4.2 lb.) compared to the Appendix D2 load.⁶ A supplemental small load test for clothes dryers would help ensure that ENERGY STAR dryers are efficient across a broader range of load sizes commonly used by consumers.

We support EPA’s proposed approach for combination laundry products. EPA is proposing to create a new specification for both all-in-one washers/dryers and laundry centers. Historically, combination all-in-one washer-dryers were eligible for certification under the ENERGY STAR clothes washer specification but were not eligible for ENERGY STAR certification as dryers. These combination laundry products, which are gaining popularity, utilize heat pump drying technology. Heat pump dryers can deliver significant energy savings relative to conventional electric resistance dryers, including current ENERGY STAR-certified models.⁷ Thus, we appreciate that EPA’s approach for combination laundry products, which aligns the efficiency criteria to those of the washer and dryer proposals, maintains comparability between products across different product types (e.g., drying efficiency of a heat pump all-in-one unit versus a conventional electric resistance dryer). Since many state and utility efficiency programs use ENERGY STAR as the qualification for rebates, we believe that EPA’s approach will help increase market penetration for efficient heat pump drying technology.

⁴89 Fed. Reg. 19087 (March 15, 2024). The current ENERGY STAR level is equivalent to Efficiency Level (EL) 2; EL 3 reflects the 2015-2017 CEE Tier 1 level.

⁵pp 4-5. www.energystar.gov/sites/default/files/2025-01/NEEA%20Comments%202.pdf

⁶pp. 11-12. www.energystar.gov/sites/default/files/2025-01/NEEA%20Comments%201.pdf

⁷DOE’s analysis for the clothes dryers direct final rule shows that standard-sized electric hybrid heat pump (CEF = 5.20) and heat pump (CEF = 7.39) dryers use about 23% and 44% less energy, respectively, than models just meeting the current ENERGY STAR level (CEF = 3.93). <https://www.regulations.gov/document/EERE-2014-BT-STD-0058-0059>; p. 7-9.

We support EPA’s ongoing efforts to incorporate commercial dryers into the ENERGY STAR program. During the public webinar presentation,⁸ EPA discussed efforts to develop a test procedure for certain commercial clothes dryers based on Appendix D2 in support of a future ENERGY STAR specification for these products. We are pleased with this progress since commercial clothes dryers represent a significant energy savings opportunity.⁹

Thank you for considering these comments.

Sincerely,



Jeremy Dunklin, PhD
Senior Technical Advocacy Associate
Appliance Standards Awareness Project



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

⁸p. 11. www.energystar.gov/sites/default/files/2025-02/ENERGY%20STAR%20Laundry%20Draft%201%20Webinar%20Slides.pdf

⁹W. Goetzler et al. Energy Savings Potential and RD&D Opportunities for Commercial Building Appliances, 2016. www.energy.gov/sites/prod/files/2016/06/f32/DOE-BTO%20Comm%20Appl%20Report%20-%20Full%20Report_0.pdf