

Appliance Standards Awareness Project  
American Council for an Energy-Efficient Economy  
Consumer Federation of America  
National Consumer Law Center, on behalf of its low-income clients  
Natural Resources Defense Council  
Northwest Energy Efficiency Alliance

November 7, 2022

Dr. Stephanie Johnson  
U.S. Department of Energy  
Office of Energy Efficiency and Renewable Energy  
Building Technologies Office, EE-5B  
1000 Independence Avenue SW  
Washington, DC 20585

**RE: Docket Number EERE–2017–BT–STD–0023/RIN 1904–AE00: Supplemental Notice of Proposed Rulemaking for Energy Conservation Standards for Microwave Ovens**

Dear Dr. Johnson:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), American Council for an Energy-Efficient Economy (ACEEE), Consumer Federation of America (CFA), National Consumer Law Center, on behalf of its low-income clients (NCLC), Natural Resources Defense Council (NRDC), and Northwest Energy Efficiency Alliance (NEEA) on the supplemental notice of proposed rulemaking (SNOPR) for energy conservation standards for microwave ovens. 87 Fed. Reg. 52282 (August 24, 2022). We appreciate the opportunity to provide input to the Department.

We continue to support amended standards for microwave ovens that would reduce standby power consumption, and we appreciate DOE’s work to reexamine the 2021 proposed determination. However, we encourage the Department to consider adopting higher efficiency levels than those proposed in the SNOPR. This recommendation and other issues are discussed in further detail below.

**We encourage DOE to consider evaluating an additional efficiency level beyond the current max-tech level for Product Class 1.** In the SNOPR, DOE evaluated a max-tech efficiency level of 0.4 watts for Product Class 1 (microwave-only ovens and countertop convection microwave ovens).<sup>1</sup> However, we examined the DOE Compliance Certification Database (CCD) and found microwave oven models with rated standby power levels spanning the range from 0.1 watts to

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<sup>1</sup> 87 Fed. Reg. 52295.

0.3 watts.<sup>2</sup> We understand that DOE has screened out the automatic power-down technology option in the current analysis, but multiple models listed in the database have average standby power levels below 0.4 watts, yet do not seem to have this feature.<sup>3</sup> Therefore, we encourage DOE to consider an additional efficiency level for Product Class 1 beyond the max-tech level that was evaluated in the SNOPR.

**We encourage DOE to consider an additional Trial Standard Level (TSL).** In the SNOPR, DOE evaluated three TSLs for amended standby power levels, with TSL 3 representing max-tech (Efficiency Level 3) for both product classes. DOE rejected TSL 3 based on the tentative conclusion that it would not be economically justified partially due to the percentage of consumers that would experience a net cost for Product Class 2.<sup>4</sup> DOE estimates that Efficiency Level 3 for Product Class 1 would result in only 13% of consumers with a net cost. However, DOE did not consider a TSL consisting of Efficiency Level 3 for Product Class 1 and Efficiency Level 2 for Product Class 2. We believe that such a modified TSL would address the net cost concerns related to Product Class 2 while roughly doubling the national energy savings relative to TSL 2.<sup>5</sup> Thus, we encourage DOE to consider an additional TSL that would represent Efficiency Level 3 for Product Class 1 and Efficiency Level 2 for Product Class 2 (see Table 1 below).

**Table 1. Characteristics of a potential new TSL<sup>6</sup>**

	Product Class 1	Product Class 2
Standby Power (W)	0.4	1.0
% of Consumers With Net Cost	13%	8%
Full-Fuel Cycle Energy Savings (quads)	0.110	0.002

**Many models listed in the DOE CCD with low standby power levels have diverse sets of features.** We examined models from Product Class 1 in the DOE CCD and found that various models with low standby power levels have a range of features and sensors built in to improve the consumer experience. For example, multiple models boast sensor cooking features that help detect the appropriate cooking time for a variety of foods while still having standby power

<sup>2</sup> Models found in the DOE CCD as of 9/16/22.

<sup>3</sup> For example, see the Summit Commercial SCM1000SS (<https://www.summitappliance.com/document/657>) and INSIGNIA AM720C2RA-PM (<https://files.bbystatic.com/Chpo1Ly6ohkztYDeceUuPw%3D%3D/User%2BGuide>), which have rated standby power levels of 0.1 watts and 0.3 watts, respectively. Neither product manual references an automatic power-down feature.

<sup>4</sup> 87 Fed. Reg. 52323.

<sup>5</sup> A potential new intermediate TSL would result in cumulative full-fuel-cycle energy savings of 0.112 quads compared to 0.052 quads at TSL 2.

<sup>6</sup> <https://www.regulations.gov/document/EERE-2017-BT-STD-0023-0022>. pp. 8-27 – 8-28 & p. 10-14.

levels below 0.6 watts.<sup>7</sup> Additionally, some models like the Breville BMO850BSS preserve the time clock even while in an idle mode, which turns off the backlight of the display and buttons.<sup>8</sup> This suggests that manufacturers are able to provide various features and sensors on a microwave oven while achieving low standby power levels.

**We continue to encourage DOE to develop a test procedure and set standards for active mode energy consumption.** There is currently no test procedure or standard in place for active mode energy consumption for microwave ovens. Active mode energy conservation standards have the potential to achieve significantly greater savings than standby mode standards alone. Without a standard for active mode energy consumption, consumers are not able to compare cooking efficiencies of different models or understand the true energy use of their microwave ovens. Additionally, manufacturers are not able to distinguish the potential improved performance of microwave ovens using new technologies. Therefore, we encourage DOE to establish test procedures for active mode energy consumption to allow the Department to develop standards that can address the full operation of microwave ovens and deliver energy savings to consumers.

Thank you for considering these comments.

Sincerely,



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<sup>7</sup> For example, see the Breville BMO850BSS (<https://www.breville.com/us/en/products/microwaves/bmo850.html>) and SAMSUNG MS19M8020TG (<https://www.samsung.com/us/home-appliances/microwaves/countertop/1-9-cu-ft-countertop-microwave-for-built-in-application-ms19m8020tg-aa/#benefits>), which have rated standby power levels of 0.3 watts and 0.5 watts, respectively.

<sup>8</sup> <https://www.breville.com/content/dam/breville/ca/en/assets/miscellaneous/instruction-manual/microwaves/BMO850-instruction-manual.pdf>. p. 16.



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