



Sent by e-mail to appliances@energystar.gov

June 30, 2023

Ms. Tanja Crk
Product Manager
ENERGY STAR Labeled Products
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington DC, 20004

Re: EPA ENERGY STAR Draft 2 Version 1.0 Residential Electric Cooking Products Specification

Dear Ms. Crk:

Samsung Electronics America, Inc. (“Samsung”) respectfully submits the following comments on the proposed ENERGY STAR Draft 2 Version 1.0 Residential Electric Cooking Products Specification.

Samsung is one of the leading home appliance brands in the U.S. and we are committed to providing energy efficient product options to U.S. consumers. Samsung has won the ENERGY STAR Partner of the Year Award for Sustained Excellence ten times, including in 2023, and in 2021 we won the ENERGY STAR Corporate Commitment Award – a rare and distinguished recognition. Samsung has also won several ENERGY STAR Emerging Technology Awards, including the 2021-2022 Award for Induction Cooking Tops, 2020 Award for Advanced Adaptive Compressors, 2017 Award for Innovative Refrigerant Systems, and 2013 Award for Advanced Clothes Dryers.

Certification Criteria

Samsung proposes that the EPA consider expected measurement uncertainty in setting up the certification criteria and suggests amending Integrated Annual Energy Consumption (IAEC) values from the proposed level of 190 kWh to 195 kWh. Our recommendation is based on several factors that suggest a need for adjustment. Firstly, the Department of Energy (DOE) conducted tests on electric cooking tops and identified variations in the current test procedure that the EPA has not taken into account. According to the DOE's 2021 round robin test results, the maximum reproducibility Coefficient of Variance (COV) for electric cooktops was measured at 2.4%. This indicates that there is some variability that should be considered when setting certification criteria. Furthermore, it is important to note that cooking tops are a newly regulated product category with a new test procedure, and the data available currently to both the DOE and

EPA does not come from units that have been subject to sampling plans and certification requirements per 10 CFR 429.11.

The DOE's requirements, as outlined in § 429.11 "General sampling requirements for selecting units to be tested," state that a minimum of two units should be tested. The ENERGY STAR Standard Operating Procedure for Certification and Verification of Products to ENERGY STAR Specifications Version 5.0 directs certification bodies to Directive 2011-04 for a verification sampling plan. Under Approach 2 in Directive 2011-04, four units are selected and obtained simultaneously. Initially, one unit undergoes spot testing, and if it fails to meet the requirements by less than 5% of the applicable ENERGY STAR specification, no further tests are conducted, and the model is considered to meet ENERGY STAR requirements. However, if the measured performance deviates beyond this range, the three additional units are immediately tested. These requirements reinforce the need for the EPA to consider the test procedure variance and insufficient sampling plan underneath the existing data and adjust the certification criteria accordingly.

Based on the DOE's findings of testing variation, the unique nature of the cooking tops as a newly regulated product category, and the sampling procedures recommended by the ENERGY STAR Standard Operating Procedure, Samsung asks EPA to consider increasing its certification criteria for energy consumption from 190 kWh to 195 kWh. This adjustment will ensure that the certification and verification process accurately reflects the performance variability observed in electric cooking tops and provides consumers with reliable information about the energy efficiency of these products.

EPA's Specification Timeline

We sincerely appreciate the EPA for taking into account our previous comments in moving expeditiously to maximize savings available to the consumer. The EPA's Guiding Principles demonstrate a commitment to promoting energy efficiency while considering the economic impact on consumers and businesses.

In light of these principles, Samsung believes that upcoming IRA home rebates aligns with the EPA's Guiding Principles and will facilitate greater access for low and moderate-income consumers to efficient electric cooking appliances. By extending these rebates to ENERGY STAR-certified cooking products, low-income consumers can continue to benefit from utility savings over the lifespan of the product.

We continue to ask that EPA finalize the specification before the IRA home rebates become available to consumers in late 2023 and be ahead of the timeframe when rebates will potentially be offered by state energy offices to consumers.

Connected Product Criteria

We recommend that the EPA incorporates connected criteria for connected features in electric cooktops, allowing products to be listed as connected within this specification. The inclusion of

the following features offers considerable utility for consumers and can contribute to increased energy savings:

1. **Wi-Fi Connectivity:** By enabling Wi-Fi connectivity, electric cooktops can connect to home networks, providing users with enhanced control and convenience.
2. **Energy Usage Reporting:** Electric cooktops equipped with energy usage reporting capabilities can provide valuable insights to users regarding their energy consumption patterns. This information empowers consumers to make informed decisions and optimize their energy usage.
3. **Status Notifications:** Real-time notifications about the status of heating elements enable users to monitor and manage their cooking more efficiently. This feature helps prevent unnecessary energy wastage and promotes safe usage.
4. **Cooking Progress Monitoring for Conventional Ranges:** The ability to monitor cooking progress remotely allows users to keep track of their meals without physically being present in the kitchen. This feature prevents overcooking, saves energy, and ensures optimal results.
5. **Remote Oven Control for Conventional Ranges:** Electric conventional ranges with remote oven control enable users to turn off the oven remotely. This feature provides added convenience and promotes energy savings by avoiding unnecessary usage.

By incorporating connected criteria, the EPA can gain valuable insights into future advancements in reducing energy usage in electric cooktops. Furthermore, the integration of connected features with other ENERGY STAR specifications, such as Smart Home Energy Management Systems (SHEMS), presents opportunities for synergistic energy-saving strategies.

Heating Up Time

Samsung fully supports EPA's proposal to incorporate a measure of time to near-boil as a reporting requirement in evaluating cooking top performance. This measure holds significant value for consumers and contributes to their overall cooking experience without increasing testing burden on manufacturers. Integrating this estimation as a reporting requirement emphasizes the importance of this consumer utility. The ability to efficiently heat water in a shorter time frame is a consumer utility, which we suggest EPA consider when recognizing the ENERGY STAR qualified cooking top products in the next revision.

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Samsung appreciates the opportunity to comment on EPA's proposed ENERGY STAR Draft 2 Version 1.0 Residential Electric Cooking Products Specification. We would gladly welcome the opportunity to discuss these matters further.

Respectfully submitted,

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