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February 10, 2022

Via E-Mail

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Re: ENERGY STAR Program Requirements, Product Specification for
Residential Electric Cooking Products, Eligibility Criteria, Draft 1 Version 1.0

Dear Ms. Kaplan:

On behalf of the Association of Home Appliance Manufacturers (AHAM), I am writing to provide our comments on the Environmental Protection Agency's (EPA) Program Requirements Product Specification for Residential Electric Cooking Products, Eligibility Criteria, Draft 1 Version 1.0, released on December 16, 2022.

AHAM supports EPA and the Department of Energy (DOE) in their efforts to provide incentives to manufacturers, retailers, and consumers for energy efficiency improvement, as long as product performance can be maintained for the consumer. The eligibility criteria in the draft specification are at least partially based on efficiency levels that DOE *is considering* in its ongoing rulemaking for a new energy conservation standard for residential electric cooking products. AHAM has concerns with this approach which prejudices DOE's final decision, as laid out in further detail below.

As EPA proceeds with developing its specification, its analysis should take into account how it may impact this administration's broader environmental justice concerns. AHAM also raises a number of technical concerns with respect to the DOE analysis upon which EPA's draft specification is based. EPA need not rush forward with a specification and should allow for full stakeholder engagement on DOE's underlying proposal, and should therefore issue at least one and possibly more draft specifications as it and DOE receive stakeholder input.

I. EPA Should Wait To Finalize Its Specification Until DOE Issues A Final Rule.

DOE issued a pre-publication Supplemental Notice of Proposed Rulemaking (SNOPR) to amend energy conservation standards for residential cooking products on December 23, 2022 and

published it in the Federal Register on February 1, 2023.¹ EPA published its draft ENERGY STAR specification on December 16, 2022. EPA based its draft specification in large part on the analysis that DOE conducted in support of the SNO PR. AHAM objects to EPA’s issuance of a proposed specification a) during the comment period for the related, underlying proposed DOE standards; b) prior to DOE’s finalization of cooktops standards. AHAM also objects to EPA having provided minimal time for commenters to review and comment on the draft specification despite the overlapping comment period on the DOE energy conservation standard.

The reasons for AHAM’s objections are as follows:

- The Appliance Standards Program forms the basis for the ENERGY STAR program. It is backwards for EPA release a draft specification before DOE publishes (or even issues) a proposed rule on the same product. EPA and DOE are supposed to work together to administer the ENERGY STAR program. Actions like this undermine that partnership and create inefficiencies and redundancies for stakeholders and other commenters.
- Appropriately, EPA’s efficiency requirements in the draft specification are at least partially based on the data, analysis, and standard levels that DOE proposed in its SNO PR. But by not allowing commenters to fully review and analyze DOE’s proposed rule and the data that underlies both it and EPA’s draft specification, EPA eliminates efficiencies that should be created by the agencies working together. Instead of DOE—with its lengthy, detailed, and statutorily-based analysis—vetting comments through the Administrative Procedure Act (APA) process and EPA leveraging that analysis to support its own specifications, EPA’s process means that both agencies are doing the same work and commenters are having to double their efforts.
- EPA’s refusal to meaningfully extend the comment period to account for the fact that its comment period substantially overlaps with DOE’s comment period on the SNO PR (and indeed that comments are due almost two months prior to DOE’s deadline) ignores the fact that DOE’s data and analysis is voluminous and complex and will require time for commenters to review and analyze before being able to fully comment.
- AHAM and other stakeholders will likely submit extensive comments on DOE’s SNO PR. AHAM is still evaluating DOE’s SNO PR and believes there are flaws in DOE’s analysis. This evaluation process is not complete, and therefore AHAM is unable to submit complete comments to EPA at this time, but that is all the more reason why EPA should wait to finalize its specification. As a result of feedback from AHAM and other stakeholders, it is possible that at least some aspects of DOE’s proposal will change.

AHAM appreciates that EPA extended the comment deadline on the draft specification from January 27, 2023 to February 10, 2023, but we also note that AHAM requested a much longer extension that would align the comment period with that of DOE’s SNO PR. EPA denied that request during its January 11, 2023 webinar discussing the draft specification. EPA indicated during its public webinar to discuss the draft specification that EPA is acting expeditiously on

¹ Department of Energy, Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products, Supplemental Notice of Proposed Rulemaking and Announcement of Public Meeting, Docket No. EERE-2014-BT-STD-0005, RIN 1904-AD15 (Feb. 1, 2023).

this electric cooktop specification as part of the Biden administration's effort to implement the Inflation Reduction Act (IRA).

AHAM is supportive of efforts to ensure all consumers have access to efficient home appliances. It is important, however, to ensure that the ENERGY STAR specification is accurate and reasonable and based on DOE's foundation. Otherwise, it is possible that the specification may not accomplish the administration's goals as we discuss in Section II below.

We note that the funds for home electrification rebates are distributed through state energy offices. These programs will not go into effect until 2024, so we understand that time is of the essence, but we also believe that there is time for EPA to develop a technically sound ENERGY STAR specification for electric cooktops. Furthermore, IRA funds are directed at ENERGY STAR products only where a final specification exists. Thus, EPA and DOE can still make significant progress toward their climate goals without a final ENERGY STAR specification for cooktops.

It is more important that EPA get the specification right and that it be based on the foundational energy conservation standards. EPA should not rush hastily into a specification, especially one that will be used to distribute potentially significant Federal funds, before understanding what feedback commenters may have on DOE's proposed rule (including the underlying data and analysis) or without knowing how DOE will respond.

II. The Draft Specification Conflicts With Environmental Justice Goals And The Inflation Reduction Act's Intent.

The appliance industry is participating in ensuring a swift and—hopefully—national (through detailed, clear guidance from DOE) IRA implementation. We hope to serve as a responsible partner to DOE and EPA in ensuring that funds are distributed in a way that meets the IRA's goals as well as other administration goals, such as those on environmental justice.

In considering how a cooktop ENERGY STAR specification will impact the implementation of the IRA, EPA should ensure that its specification allows a broad range of products and price points to be available to consumers. For example, radiant cooktops are not inherently less efficient. Based on the variation in the test procedure, it is possible that their exclusion could be based on statistical noise and the fact that products have not yet been optimized to account for the test procedure's variation. There is significant consumer utility to these products and they are offered at a range of price points, some of which would likely be attractive to consumers who stand to benefit from the IRA. The ENERGY STAR specification should not prevent people at lower incomes from benefitting from the IRA with levels that are too stringent.

Low-income consumers cannot typically afford expenses of \$400. Recent consumer research conducted by Bellomy Research, and sponsored by AHAM, surveyed low-income households in regards to their financial burdens and purchase journey for appliances. The study found over half (53 percent) of low-income households would not be able to pay for a \$400 emergency expense and nearly half (45 percent) indicated they would have difficulty pay for an expense less \$400. Furthermore, according to the Federal Reserve, the ability to deal with an unexpected expense of

\$400 is an indicator of economic well-being for U.S. households.² In addition, the survey showed the following:

- 41% of low-income consumers indicated replacing their cooking product now would have an extremely negative impact on their finances;
- 34% of low-income consumers indicated they would replace their cooking product with a “value-tier” product;³
- 77% of low-income consumers indicated they would NOT pay more upfront for a more efficient product to save between \$50-150 over the life of the product;⁴
- 45% of low-income consumers would not be able to purchase a new cooking product and would resort to buying used, applying for assistance, or delaying purchase;
- Low-income households (under \$25K) are 3.5 times more likely to own a coil cooktop.

As discussed below, EPA has not justified its specification with a savings analysis. Without evaluating that, EPA cannot ensure that its specification will not have the unintended consequence of making it impossible for lower income people to take advantage of the IRA’s benefits. DOE’s analysis shows that for electric smooth cooktops at EL 2, 30% of low-income households experience a net cost.⁵ This is a real policy issue that EPA and DOE must resolve before pushing any given technology, particularly an expensive technology. EPA should find a solution before finalizing its draft specification.

III. EPA’s Proposal Deviates From ENERGY STAR’s Guiding Principles.

Under ENERGY STAR’s Guiding Principles, EPA is supposed to evaluate the cost-effectiveness of a specification for ENERGY STAR qualified products.⁶ EPA has not conducted this evaluation in this draft specification and has not demonstrated the cost effectiveness of this specification, which is usually based on a two to five year payback period.

In the past, EPA tried to demonstrate cost-effectiveness through a method of using an estimated retail price difference for two models that may or may not have similar cost structures. AHAM continues to oppose that approach, as we have discussed in myriad comments, but EPA did not even conduct that simple analysis for this draft specification. EPA must conduct a robust analysis showing that its proposed specification is cost-effective for consumers. The lack of analysis for the sake of moving quickly removes commenters’ ability to meaningfully or completely evaluate

² Federal Reserve Board. (2022). Economic Well-Being of U.S. Households in 2021. Research and Analysis – Survey of Household Economics and Decision-making. Pg. 32, Figure 18.

³ Value-tier can be categorized as an entry-level and/or low priced product.

⁴ This is within the estimated savings from DOE’s analysis for Efficiency Level 2 for electric smooth cooktops, which is very close to the proposed ENERGY STAR levels. The savings in terms of lifetime operating costs at EL 2 in comparison to the baseline is \$87. *See* Technical Support Document: Energy Efficiency Program For Consumer Products and Commercial and Industrial Equipment: Consumer Conventional Cooking Products (hereinafter referred to as “TSD”) at Table 8.3.3.

⁵ *See* TSD at Table 11.4.26.

⁶ *See* Guiding Principle #3 at

https://www.energystar.gov/sites/default/files/asset/document/ENERGY_STAR_Strategic_Vision_and_Guiding_Principles.pdf (viewed on February 3, 2023).

and provide feedback on EPA's proposal and, if not remedied, could undermine EPA's credibility and brand because EPA is effectively abandoning one of ENERGY STAR's core Guiding Principles.

IV. The Standby Requirement For Ovens Is Unnecessary And Will Cause Confusion.

The draft specification's Energy Use Requirements for Combined Electric Cooking Products sets proposed efficiency limits for residential ranges. These limits are a 190 kWh/yr Integrated Annual Energy Consumption (IAEC) for the cooktop portion of the range and a standby limit ($E_{TLP,O}$) of 7 kWh/yr for the oven portion. During its January 11, 2022 webinar, EPA showed data indicating that all products that meet the IAEC criteria meet the $E_{TLP,O}$ criteria.

DOE has not assumed any technology options to be available for improving standby power energy consumption of electric ovens, beyond moving to switch-mode power supplies. AHAM notes that the industry has already largely moved from linear power supplies to switch-mode power supplies.

If EPA claims that its test sample is representative of the market, then the standby requirement for ovens is unnecessary because ranges meeting the IAEC requirement will meet the oven standby requirement. An unnecessary metric leads to unnecessary expense and reporting burden. The standby requirement will only cause confusion in the market because the $E_{TLP,O}$ metric does not adequately differentiate among products. For these reasons, EPA should eliminate the standby requirement for ovens in combined electric cooking products. As discussed briefly below and as likely to be part of AHAM's comments to DOE, a maximum standard on standby power could have significant, irrecoverable consequences that will result in the loss of safety and consumer oriented features.

V. The Draft Specification And Underlying Analysis Raise A Number Of Technical Concerns.

As EPA considers the next draft of its specification, AHAM urges it to consider several technical issues. We also urge EPA to await the end of the comment period on DOE's analysis and, ideally, DOE's resolution of those issues before continuing with a second draft in order to ensure consistent resolution of these issues.

A. DOE And EPA Are Decoupling Product Efficiency And Product Safety.

AHAM is concerned that in their drive for higher efficiency, DOE and EPA are discounting features that enhance product safety. With respect to DOE and its SNOBR on cooking products, it is possible that there was insufficient testing of coil cooktops with coil ignition prevention. Even though DOE may have tested a small number of current units, they may not have tested enough. AHAM believes that at least some of the test sample are inactive products and may not be representative, but more analysis is necessary. DOE should provide further characterization of the units tested to address these concerns and EPA should wait for that additional data before moving forward with its specification. AHAM has sought some of this data.

EPA's specification also impacts current and possible future product health and safety features due to proposed limits on standby power. Safety and health features generally consume standby power and this is of particular concern on cooking products where there is considerable activity with respect to indoor air quality (IAQ). EPA should take care that its specification does not conflict with efforts to address IAQ at the Consumer Product Safety Commission or at other branches within EPA itself.

B. The t90 Metric Might Be Misleading.

The draft specification requires reporting of the t90 metric without explanation as to why the requirement exists. EPA might believe t90 is a performance metric of which consumers should be aware and it appears that EPA believes this metric represents time-to-boil. If that is the case, the reporting requirement is inappropriate. EPA must not stray from its strategic vision for the ENERGY STAR program, which is to reduce greenhouse gas emissions by removing barriers in the market that deter consumers and others from purchasing the most energy-efficient product model that otherwise meets their needs. The ENERGY STAR program must remain squarely focused on energy efficiency and not create design requirements or performance criteria.

AHAM also notes that even if EPA wants to incorporate a performance metric over AHAM's strong objection, t90 is inappropriate for that purpose as well because t90 and time-to-boil are not analogous. The t90 metric is simply a product of the test procedure. For example, in many cases:

- The cooking zone is turned to full power;
- Water reaches a turndown temperature, below 90°C, and the control is turned down;
- The control remains at this simmer position, during which time temperature may increase to 90°C.

This prescribed procedure differs from the normal consumer behavior of turning the control all the way up until water boils. Requiring t90 reporting will be misleading and confusing to consumers. EPA should, therefore, remove the reporting requirement from the specification.

C. The Draft Specification Is Dismissive Of Radiant Technologies.

As mentioned briefly above, AHAM is concerned that a side effect of EPA's draft specification is that it will penalize radiant technologies. This product type had the lowest qualification rate of any electric cooktop type in the EPA dataset. Those technologies, however, could help further the administration's climate goals. Radiant technology is not inherently less efficient than other technologies, and its performance in DOE's testing may be an artifact of those units not being tuned to the test procedure, as well as the large amount of variation inherent to the test procedure. The ENERGY STAR specification should establish a level that allows for radiant cooktops to qualify. As it stands, the specification could reduce the range of products that could be available to consumers by eliminating products at an attractive price point or eliminating products that do not require ferromagnetic cookware at an increased cost. EPA should therefore reexamine its level in light of the role radiant cooking technology can play in furthering EPA's goals.

D. EPA And DOE Should Consider Additional Product Classes.

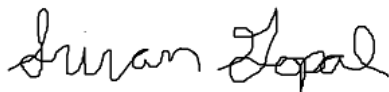
In prior comments to DOE, AHAM advocated for creating a separate product class for induction cooktops. Induction cooking tops should be considered a separate product class— several performance-related features justify such treatment. For example, there are consumer utility differences between cooking products with induction and electric resistance heating:

- Induction heating heats faster than electric resistance heating.
- Cooking products with induction heating are even easier to clean than smooth top cooking products. In the 1996 technical support document, DOE determined that the ease of cleaning smooth elements provides greater utility to the consumer than coil elements and that smooth elements typically consume more energy than coil elements. DOE, therefore, defined two separate product classes for open coil element and smooth element electric cooktops. See 73 Fed. Reg. 62034, 62047 (Oct. 17, 2008).
- Many induction cooking tops offer consumers a “cook anywhere” performance feature which is not available on smooth top cooking tops and allows consumers flexibility when cooking.
- Induction cooking tops use a different method of heating, require specific cookware, and are generally a premium product—all features that differentiate them from other cooking products.

For these reasons, DOE and EPA should consider creating a separate product class for induction cooktops. Ultimately, EPA should be consistent with whatever DOE decides so that the product classes are consistent between the energy conservation standard and the ENERGY STAR specification.

AHAM appreciates the opportunity to submit these comments on EPA’s Program Requirements Product Specification for Residential Electric Cooking Products, Eligibility Criteria, Draft 1 Version 1.0, and would be glad to discuss these matters in more detail should you so request.

Best Regards,



Sriram Gopal
Director, Technology & Environmental Policy

About AHAM: AHAM represents more than 150 member companies that manufacture 90% of the major, portable and floor care appliances shipped for sale in the U.S. Home appliances are the heart of the home, and AHAM members provide safe, innovative, sustainable and efficient products that enhance consumers’ lives. The home appliance industry is a significant segment of the economy, measured by the contributions of home appliance manufacturers, wholesalers, and retailers to the U.S. economy. In all, the industry drives nearly \$200 billion in economic output throughout the U.S. and manufactures products with a factory shipment value of more than \$50 billion.