



Submitted via HVAC@energystar.gov

May 16, 2024

Ann Bailey, Director
ENERGY STAR Labeling Branch
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

Re: ENERGY STAR Program - Version 5.0 Furnace Specification

Director Bailey:

The American Gas Association (“AGA”) provides these comments in response to the Environmental Protection Agency’s (“EPA”) April 16, 2024, first draft of the Version 5.0 ENERGY STAR furnace specifications with a target effective date of 2026 (“2024 Furnace Proposal”).¹ As discussed in more detail below, AGA provides comments on some of the specifics in the 2024 Furnace Proposal and offers alternatives for EPA to consider. Specifically, EPA should reevaluate the proposed elimination of the separate geographic designations and extend the timeline for any changes to the ENERGY STAR program.

I. Identity and Interest

AGA, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 78 million residential, commercial, and industrial natural gas customers in the U.S., of which 95 percent — more than 74 million customers — receive their gas from AGA members. AGA is an advocate for natural gas utility companies and their customers and provides a broad range of programs and services for member natural gas pipelines, marketers, gatherers, international natural gas companies, and industry associates.² Today, natural gas meets nearly one-third of the United States’ energy needs. Currently, 52% of U.S. households use natural gas for space heating in their homes.³

¹ ENERGY STAR Draft Version 5.0 Product Specifications for Furnaces, available at <https://www.energystar.gov/sites/default/files/2024-04/ENERGY%20STAR%20Version%205.0%20Furnaces%20Draft%201%20Specification%20.pdf>. See also ENERGY STAR Draft Version 5.0 Cover Letter, available at <https://www.energystar.gov/sites/default/files/2024-04/ENERGY%20STAR%20Version%205.0%20Furnaces%20Draft%201%20Cover%20Letter.pdf>.

² For more information, please visit www.aga.org.

³ U.S. Energy Information Administration, available at <https://www.eia.gov/todayinenergy/detail.php?id=55940>.

II. AGA and Natural Gas Utilities Supports Energy Efficiency and Conservation Efforts

AGA supports energy efficiency and conservation efforts, including the efficient use of natural gas in homes and businesses. AGA strongly supports the ENERGY STAR program’s mission to provide “simple, credible, and unbiased information” on a product’s energy efficiency.⁴ As stated in AGA’s June 22, 2023 comments, AGA members are doing their part to create a more efficient energy economy. Natural gas utilities administer over 125 natural gas efficiency programs across 42 states, which collectively invest more than \$1.4 Billion annually, in part to assist customers with the purchase and installation of efficient gas appliances.⁵ ENERGY STAR-certified gas furnaces have been a central offering within these utility programs. Natural gas utility efficiency programs promote the use of ENERGY STAR home heating equipment and often rely on ENERGY STAR certification when determining eligibility for utility-provided incentives including appliance rebates.⁶

III. Comments

A. Background

On May 18, 2023, EPA circulated a notice stating that it was proposing to phase out the ENERGY STAR labeling and promotion of residential natural gas furnaces. AGA sent a letter to Administrator Michael S. Regan on June 15, 2023, raising concerns about the proposed removal of natural gas furnaces from the ENERGY STAR program. AGA also joined National Propane Gas Association (“NPGA”), National Energy & Fuels Institute (“NEFI”), Energy Marketers of America (“EMA”), American Public Gas Association (“APGA”), Oilheat Manufacturers Association (“OMA”), and Plumbing-Heating-Cooling Contractors—National Association (“PHCC”) in joint comments on EPA’s proposal submitted on June 22, 2023. AGA also filed individual comments on June 22, 2023, which strongly opposed the proposal to remove natural gas furnaces from the ENERGY STAR program.⁷

On April 16, 2024, EPA circulated a second notice related to natural gas furnaces proposing to increase the efficiency level to 97% Annual Fuel Utilization Efficiency (“AFUE”), *i.e.*, the 2024 Furnace Proposal. According to the EPA, it received compelling support for continuing the labeling for furnaces and it decided to propose an update, rather than sunset, to the ENERGY STAR furnace specification. Specifically, EPA recently proposed an alternative to the full product specification sunset that includes increasing the residential gas furnace

⁴ ENERGY STAR Overview, available at <https://www.energystar.gov/about>.

⁵ AGA, Efficient Natural Gas, available at <https://www.aga.org/efficient-natural-gas/>.

⁶ *Id.*

⁷ AGA incorporates by reference into these comments the prior comments and letters submitted to EPA regarding the proposed removal of natural gas furnaces from the ENERGY STAR program. These comments include: a) The joint comments of AGA, NPGA, NEFI, EMA, APGA, OMA, and PHCC dated June 22, 2023; b) the June 22, 2023 comments of AGA including three attachments: a) June 15, 2023 AGA Letter to Administrator Michael S. Regan, b) Empowering Consumer Choices: Analyzing the Impact of the ENERGY STAR Program on the Adoption of High Efficiency Gas Appliances, and c) Implications of Policy-Driven Residential Electrification.

requirement to 97% AFUE beginning in 2026 for the entire U.S.⁸ The current requirement for natural gas furnaces⁹ is 95% AFUE in the U.S. North¹⁰ and 90% AFUE in the U.S. South.¹¹ In the 2024 Furnace Proposal, EPA explained it is “removing the regional split for gas furnaces to align with the DOE standard, simplify the label for consumers, and to simplify program administration for certification bodies and manufacturers.”¹²

AGA appreciates the fact that EPA is no longer proposing to eliminate efficient natural gas furnaces from the ENERGY STAR program.¹³ However, as discussed herein, AGA has concerns with the 2024 Furnace Proposal.

B. EPA Should Maintain a Regional Distinction for ENERGY STAR Furnaces

As stated above in the 2024 Furnace Proposal, EPA is proposing to eliminate the regional split, *i.e.*, the U.S. North and U.S. South distinctions, for natural gas furnaces in the ENERGY STAR program. EPA should maintain the regional split and have different gas furnace efficiency requirements and labels that are used for different regions of the country. This is because in the southern half of the U.S., generally, homes require less heat when compared to the northern half of the U.S.

Regional requirements aim to address geographic differences in heating needs; however, EPA’s proposal ignores the differing heating needs in the northern and southern tiers of the U.S. In its simplest terms, northern states have more heating degree days, *i.e.*, days when a furnace is needed, as compared to the southern states which are warmer and do not have as many heating degree days. The number of heating degree days influences the amount of energy used to heat a home and the cost/benefit analysis of installing a high efficiency unit. A one-size-fits-all national level does not make sense for products with energy use that varies widely depending on climate. EPA’s prior determination to include regional differences in the current natural gas furnace criteria recognized the needs of different regions.¹⁴

⁸ 2024 Furnace Proposal at p. 2.

⁹ EPA Furnaces Key Product Criteria available at https://www.energystar.gov/products/furnaces/key_product_criteria.

¹⁰ The U.S. North is defined as Alaska, Colorado, Connecticut, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming.

¹¹ The U.S. South is defined as Alabama, American Samoa, Arizona, Arkansas, California, Delaware, District of Columbia, Florida, Georgia, Guam, Hawaii, Kentucky, Louisiana, Maryland, Mississippi, Nevada, New Mexico, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, and Virginia.

¹² 2024 Furnace Proposal at p. 2.

¹³ See <https://www.energystar.gov/sites/default/files/asset/document/HVAC%20Sunset%20Letter.pdf>.

¹⁴ On May 1, 2024, EPA held a public webinar for interested parties to listen to the proposal and ask questions about the changes being made to the program in version 5.0. On slide 13, EPA stated reasons for eliminating the regional distinction based on primarily sales data and simplification of the program. AGA asked for comment from EPA regarding which stakeholders have asked for the elimination of the regional differences based on the need to simplify it. EPA was unable to provide an example of any organization that has asked for a national standard based on difficulty to meet compliance. EPA was also unable to provide specifics on why it is more complicated for EPA to administer a two-region compared to one.

Importantly, the data and model EPA uses to support the 2024 Furnace Proposal hides possible regional concerns with current market penetration. In short, the use of model numbers overestimates the success of the program and only shows availability. Specifically, the number of 90% and 95% AFUE models does not signal how many 95% or 97% AFUE and above furnaces are shipped in the U.S. North or U.S. South. Individual furnace models could be installed in any climate and the modeled data only signals product availability. Moreover, the Department of Energy (“DOE”) Consumer Furnace Rule¹⁵ modeled data, used by EPA, was weighted by the total population of natural gas furnaces in 2020. As illustrated in the table below, the U.S. North has a market share of approximately 52% of gas furnaces rated 95% AFUE and above, while the U.S. South is only 24% at 90% AFUE and above. Even at 95% AFUE in the U.S. South, only 15% of current shipments meet this AFUE rating. As for the proposed standard of 97% AFUE, 4.0% of the U.S. North market meets this AFUE rating, and 1.2% in the U.S. South. This averages out to only 2.8% nationally.

Gas Furnace Market Share at Each AFUE

	80%	90%	91%	92%	93%	94%	95%	96%	97%	98%
South	76%	0%	0%	9%	0%	0%	6%	8%	1%	1%
North	32%	0%	0%	14%	0%	0%	24%	25%	4%	0%
Total	50%	0%	0%	12%	0%	0%	16%	18%	2%	0%

Cummulative Gas Furnace Market Share at Each AFUE and Up

	80%	90%	91%	92%	93%	94%	95%	96%	97%	98%
South	100%	24%	24%	24%	15%	15%	14.7%	9.0%	1.3%	0.6%
North	100%	68%	67%	67%	53%	52%	52.1%	28.6%	4.0%	0.3%
Total	100%	50%	49%	49%	37%	37%	36.7%	20.5%	2.9%	0.5%

* Based on a summary of shipment data from 2013 through 2020. Weighted by state population of gas furnaces in 2020

Market share data by state and region are included in Attachment A.

Moreover, EPA’s use of the total number of models available to justify the success of the program is misleading. In the 2024 Furnace Proposal and the “data package,” EPA states that 47% of gas furnace models meet the current gas furnace ENERGY STAR standard version 4.0, of 90% in U.S. South and 95% in U.S. North. However, EPA’s published shipment data for ENERGY STAR suggests a lower market penetration of 36% in 2022, 41% in 2021, and 40% in 2020. Based on DOE’s data in the Consumer Furnace Rule model, between 2013 and 2020, only 40% of furnaces based on AFUE alone could have met the standard. ENERGY STAR has more requirements than just AFUE; therefore, Consumer Furnace Rule shipment data would be the maximum number of shipments possible over this range of years. Therefore, the market penetration data relied on by EPA to underpin the 2024 Furnace Proposal is not as supportive as indicated in the issuance.

¹⁵ *Energy Conservation Program: Energy Conservation Standards for Consumer Furnaces*, 88 Fed. Reg. 87,502 (Dec. 18, 2023) (“Consumer Furnace Rule”).

Furthermore, based on the current DOE Consumer Furnace Rule model, the 2024 Furnace Proposal disproportionately saves energy in the U.S. North. In the U.S. North, 52% of the market has shipped a 95% AFUE or above unit, and 57% of the total market for gas furnaces is in the U.S. North. Overall, based on the share of shipments that meet the current ENERGY STAR standard, 75% of the total impact of the new standard of 97% AFUE comes from the incremental 2-percentage point AFUE change in the U.S. North. This is based on DOE’s estimate of shipments of all gas furnaces by AFUE and weighted by the number of gas furnaces operating in each state. This analysis assumes that the current market for 90% AFUE in the U.S. South and 95% AFUE in the U.S. North completely converts to 97% AFUE. Not all installations would follow the change in ENERGY STAR and would likely reduce the number of ENERGY STAR products shipped units or, worse, increase demand for 80% AFUE furnaces. By setting the standard at 97% AFUE nationwide, EPA risks selling fewer condensing furnaces in the U.S. South by encouraging only the highest efficiency models, and thus missing key opportunities for energy efficiency improvements in these households.

If future consumers upgrading to a 90%+ AFUE furnace in the U.S. South decide to install an 80% AFUE unit because of the change to 97% AFUE, this would result in significantly less energy savings overall. Nine percent of shipments in the U.S. South meet a 90% to 92% AFUE based on DOE’s data. This 9% is out of a total of 24% of all furnaces shipped in the U.S. South that meet the current ENERGY STAR AFUE requirement. If the proposed change results in some or all consumers deciding not to install a condensing furnace, this would result in an energy increase of 3.4 MMBtu per consumer compared to the potential savings of 1.5 MMBtu by upgrading from a 92% AFUE furnace to 97% and 0.7 MMBtu for consumers currently installing a 95% AFUE unit.

Region	Baseline Energy Star AFUE	Proposed Energy Star AFUE	Average Baseline Energy Consumption (MMBtu/yr)	Proposed Average Energy Savings (MMBtu/yr)	Installation Cost Difference	Average Baseline Energy Cost (1st Year)	Average Proposed Cost Savings (1st Year)	Simple Payback Period (Years)	Current Market Share of Shipments (%)
U.S. North	95%	97%	50.0	1.7	\$ 208.27	\$ 645.40	\$ 10.41	20.0	4.0%
U.S. South	90%	97%	23.8	1.5	\$ 243.16	\$ 412.25	\$ 13.78	17.7	1.3%

Reviewing the regional decisions based on cost also results in small savings from either region and higher payback periods compared to the current 90/95% AFUE standard. The EPA is relying on a cost analysis benefit that compares the savings from upgrading to a 97% AFUE from an 80% AFUE furnace and not based on the current standard. Because of this, the EPA is showing a more favorable payback outcome of 10.5 years. Based on the same DOE model that EPA has used to justify the change, the cost to upgrade from a 95% AFUE to 97% in the U.S. North is an additional \$208.27 and saves \$10.41 in the first year with a simple payback of 20 years. The reason why the cost savings are low is that DOE’s analysis factors in marginal costs and there will be very little savings by reducing energy consumption by 1 to 2 MMBtu per year. In the U.S. South, the problem is the same but requires a greater increase in AFUE to see the same results in energy savings as in the U.S. North. Transitioning from a 90-92% AFUE (92% AFUE is modeled because less than 1% of the market anywhere is installing a true 90% AFUE

furnace) would add \$243.16 in higher costs installation and save \$13.78 in the first year and provide a simple payback of 17.7 years. If a significant number of consumers currently installing condensing furnaces in the U.S. South with an AFUE rating of 90% or above decided to install an 80% AFUE furnace because of the proposed changes to ENERGY STAR, this could potentially result in no energy savings at all in the U.S. South. This assumes that the current shipment of 95% AFUE furnaces migrates to 97% and most 90% and 92% AFUE furnaces opt for 80% AFUE units. This would likely only impact new construction and the replacement of non-condensing furnaces because the cost to replace the condensing furnace with a new condensing furnace is minimal compared to installing a new and different venting system.

Moreover, it is also important to recognize that central furnace manufacturers usually produce furnaces primarily for the northern climate (northern models for the U.S. North) and a second line for the southern climate (southern models for the U.S. South) with the main difference being the need for higher airflow requirements for the southern models to accommodate the higher cooling needs in the southern climates. For proper cooling, coils require at least 400 cubic feet per minute (“CFM”) per ton to operate efficiently and, therefore, southern models are designed mainly for their cooling function then for heating since the heating load in the U.S. South is not as high as in the U.S. North. This design element is also the reason that a lower, condensing efficiency level for gas furnaces in the U.S. South is justified and can still encourage installation of condensing technology at levels lower than required in the U.S. North.

In the cover letter circulated with the 2024 Furnace Proposal, EPA states that “[s]ales data reported to the EPA indicates that consumers are generally not taking advantage of the U.S. South performance level.” Nevertheless, EPA proposes to remove the regional distinction and increase the AFUE level which would apply to the U.S. South. The rationale for increasing the AFUE to 97% in the U.S. South, despite low uptake at the current lower levels, appears flawed. If consumers are not widely adopting furnaces with the existing 90% AFUE standard, it is unlikely that raising the standard to 97% will enhance sales of ENERGY STAR products. Raising the AFUE level to 97% will increase upfront costs for consumers, especially in a region with milder winters and less heating demand, leading to a longer payback period. This financial burden can further deter consumers from adopting high-efficiency models.

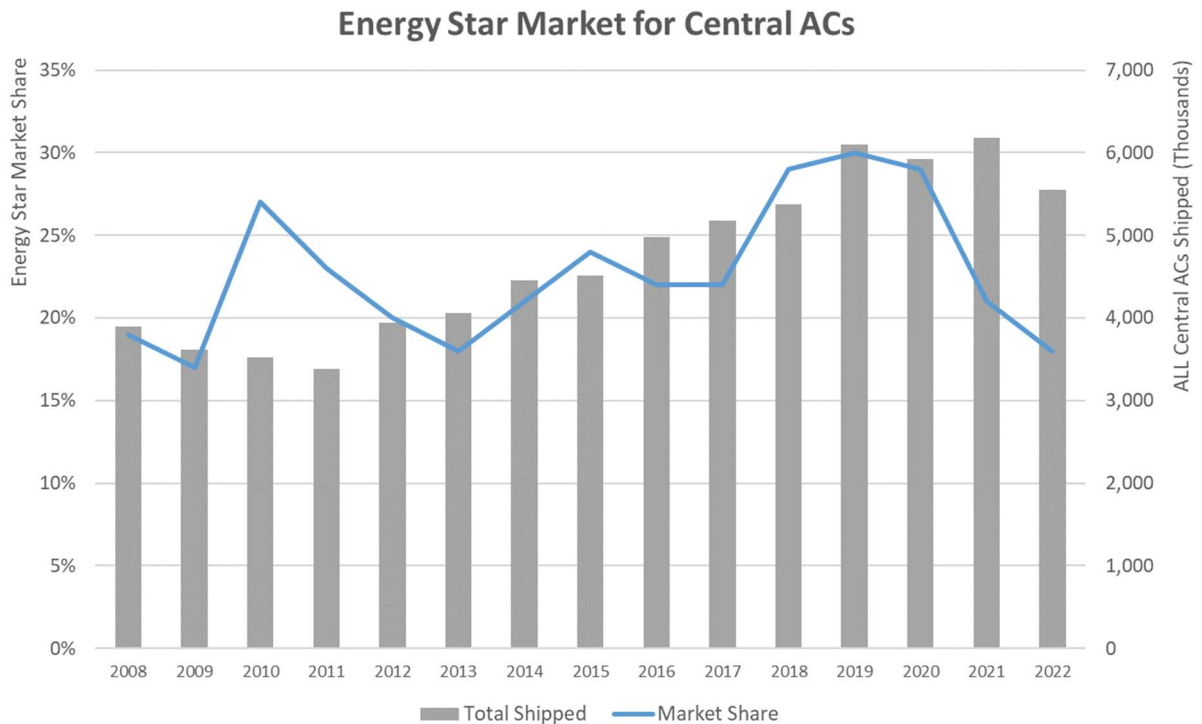
As discussed below, AGA is proposing alternative approaches to the 2024 Furnace Proposal that maintain the regional difference, for the reasons discussed herein.

C. EPA Should be Consistent with Prior Revisions Related to HVAC ENERGY STAR Products by Not Eliminating an Excessive Number of Products from the Program and Follow Previously Used Timelines

AGA is concerned with the number of appliances being eliminated from the ENERGY STAR program as a result of the proposal and the timeline being proposed by EPA. These elements of the 2024 Furnace Proposal are not consistent with prior EPA actions related to HVAC ENERGY STAR products. Specifically, the 2024 Furnace Proposal would remove over 90% of the natural gas furnaces from the ENERGY STAR program and seeks to implement the proposed changes in 2026.

Between 2008 and 2022, EPA has made two revisions to central air conditioning. Version 5.0 was released in 2016 and version 6.0 in 2023, with thorough comment and review periods that provided 4 years of advanced notice between the filing of initial comments and each version changes going into effect. In contrast with prior process, in the 2024 Furnace Proposal, EPA proposes for changes to take effect sometime in 2026. This could mean an advance notice period shorter than has been provided in the past for HVAC equipment.

Moreover, the 2024 Furnace Proposal also impacts natural gas furnaces to a greater extent than prior HVAC-related changes to the ENERGY STAR program. Over the course of these two changes to the ENERGY STAR program for central air conditioners (“CAC”), the market share reached the high 20% range before dropping to the low 20% range by the time the version 5.0 change was final. The 30% reduced market share is more reasonable than the proposed 90%+ cut. The 2024 Furnace Proposal, *i.e.*, version 5.0 for gas furnaces, should consider that a drastic cut in the shipment of current qualifying units based on AFUE alone could harm demand for higher efficiency products because of insufficient 97%+ AFUE shipments of the products.



EPA should revise the 2024 Furnace Proposal to limit the impacts on natural gas appliances. As discussed herein, AGA proposes an alternative proposal, below, to address the aforementioned issue.

D. EPA’s Projected Energy Savings are Overstated

In the 2024 Furnace Proposal, EPA states that the average savings would be 9.2 MMBtu. However, the energy savings projected by EPA are solely based on the transition of all consumers

switching from an 80% AFUE to a 97% AFUE furnace unit. If EPA finalizes the proposal as is, the ENERGY STAR program would more likely impact the current decision-making process of consumers and would significantly impact the current sales of 90% AFUE furnace units and above based on the current U.S. North vs. U.S. South regional distribution.

Based on the DOE-reported furnace shipment data, only 0.12% of all furnace shipments in the U.S. South have an AFUE of 90% or 91%. Due to the small percentage of furnace shipments at 90% and 91% AFUE in the U.S. South, AGA therefore assumed the energy usage of a 92% AFUE gas furnace in the U.S. South as the most likely estimate of the minimum savings from the current 90% AFUE standard.

By changing the standard from 90%/95% AFUE to 97% AFUE in the U.S. North, on average, the net energy savings would be approximately 1.6 MMBtu. Switching from a 90% to 97% AFUE in the south can save approximately 1.5 MMBtu but only 24% of the market is shipping a 90% AFUE furnace unit or above. Importantly, the U.S. South contributes only 43% of the total gas furnace market and the average consumer uses half the total MMBtu of gas per year.

In short, EPA is relying on energy savings from consumers opting for a 97% AFUE furnace rather than an 80% AFUE unit to justify the savings. Additionally, EPA's analysis is based on the average consumer making the change rather than weighted by current shipments. This all leads to a misleading analysis of the energy savings of the 2024 Furnace Proposal.

E. Changes to ENERGY STAR Should be Consistent with the Inflation Reduction Act

The Inflation Reduction Act of 2022 (“IRA”) included various provisions to incentivize energy efficiency improvements.¹⁶ While the IRA directly links some of the provisions, such as those for buildings, to the ENERGY STAR program, the implementation guidance expands the linkage between the benefits of the IRA to the ENERGY STAR program¹⁷ and it's possible that the linkages will grow as new guidance is issued. In short, the incentives and credits in the IRA are connected to the ENERGY STAR program, and EPA should maximize, to the extent possible, the availability of the IRA benefits. EPA should not implement changes to the ENERGY STAR program that would reduce the effectiveness or the availability of IRA benefits.

For example, the IRA's Energy Efficient Home Improvement Credit, *i.e.*, the 25C credit, can be claimed for improvements made through December 31, 2032. Importantly, EPA referenced the 25C credit in its notice of the 2024 Furnace Proposal. Additionally, the New Energy Efficient Home Credit, *i.e.*, the 45L credit is claimable through December 31, 2032 and the Home Energy Performance-Based, Whole-House Rebates are valid to September 30, 2031. To the extent EPA limits the number and type of appliances in the ENERGY STAR program,

¹⁶ Public Law No. 117-169.

¹⁷ See DOE Home Efficiency Rebates Program Requirement, Version 1.1, available at https://www.energy.gov/sites/default/files/2023-10/home-energy-rebate-programs-requirements-and-application-instructions_10-13-2023.pdf.

such actions would then limit the applicability of the IRA benefits. To avoid this problem and maximize the impact of the IRA, EPA should revise the proposal to be consistent with the IRA’s timelines. As discussed below, AGA proposes an alternative approach that accounts for the IRA benefits.

F. EPA Should Refrain from Revising the ENERGY STAR Program Until Matters with DOE’s Standards are Resolved

In the 2024 Furnace Proposal, EPA notes that it is proposing certain steps to align its actions with DOE’s efficiency standards. EPA makes this cross reference with regard to the regional split; however, the 2024 Furnace Proposal includes a 97% AFUE requirement, which is higher than DOE’s recently issued minimum efficiency standard for natural gas furnaces of 95% AFUE starting December 18, 2028.¹⁸ AGA cautions EPA from taking any action based off of DOE’s Consumer Furnace Rule due to the fact that the rule is currently the subject of a pending appeal. Various entities challenged DOE’s Consumer Furnace Rule in the U.S. Court of Appeals for D.C. and asked that the rule be vacated, and the matter remanded to DOE. The proceeding is currently in the briefing phase.¹⁹ It would be prudent for EPA to delay action on changes to the ENERGY STAR program until the court proceeding on DOE’s Consumer Furnace Rule is fully resolved by the court, by DOE after a remand, or by further proceedings. It is reasonable and prudent to await the outcome of the ongoing court proceeding due to the fact that other DOE efficiency standards have been vacated in the past.²⁰

G. EPA Should Adopt an Alternative Proposal that Would Strengthen the ENERGY STAR Program and Benefit Customers

AGA provides the following alternative proposals to the 2024 Furnace Proposal. The proposals are intended to account for the IRA timeline, maintain a regional distinction, and reflect DOE efficiency standards, among other matters. The alternatives are presented in order of preference.

Alternative No. 1. EPA maintains the current AFUE level and the regional split for natural gas furnaces until the expiration of any IRA-related credits/benefits. As such, any change could not occur until 2032 to ensure the maximum benefits of the IRA are realized. As discussed above, the incentives and credits in the IRA are connected to the ENERGY STAR program, and EPA should maximize, to the extent possible, the availability of the IRA benefits. EPA should not implement changes to the ENERGY STAR program that would reduce the effectiveness or the availability of IRA benefits.²¹

¹⁸ *Energy Conservation Program: Energy Conservation Standards for Consumer Furnaces*, 88 Fed. Reg. 87,502 (Dec. 18, 2023) (“Consumer Furnace Rule”).

¹⁹ *AGA, et al., v. DOE*, D.C. Cir. Nos. 22-1030, 23-1285, and 23-1337.

²⁰ *APGA v. DOE*, 72 F.4th 1324, 1329 (D.C. Cir. 2023) (vacating the energy efficiency standards for commercial packaged boilers); *APGA v. DOE*, D.C. Cir. No. 11-1485 (motion granted on April 24, 2014, vacating the energy efficiency standards for furnaces issued by DOE in 2011).

²¹ Issues related to the IRA are discussed above and are incorporated in this section by reference. Also, as discussed above, there is a pending challenge to DOE’s Consumer Furnace Rule which could impact its status and application prior to 2032.

Alternative No.2. EPA maintains the regional distinction for natural gas furnaces. EPA revises the current levels and sets the AFUE at 97% in the U.S. North and 92% in the U.S. South starting sometime in 2026. EPA takes no further action, until all the challenges related to DOE’s Consumer Furnace Rule are fully resolved.²² Under this alternative there would be a 2-percentage point increase in AFUE applied to each regional specification. This is a less drastic change and would be a 2-percentage point increase in AFUE in both regions, setting the U.S. South at 92% and the U.S. North at 97%, and thus preserving significant product availability for most consumers. This would allow for significant energy savings in the U.S. North, where the average usage is more than twice that of the U.S. South, while continuing to incentivize more efficient, cost-effective options in the U.S. South. Currently, 76% of shipments in the U.S. South are 80% AFUE models. With the current standard of 90% and above showing much less effect in the U.S. South than in the U.S. North, it appears less likely that a change from 90% AFUE to 97% would encourage more adoption and could hurt energy efficiency. By implementing a change of 92% AFUE in the U.S. South and 97% AFUE in the U.S. North, the new ENERGY STAR version 5.0 would reduce shipments from the current range of 30% to 40% to approximately 15%.

H. EPA Should Fully Assess the Impacts of the Proposed Rule on Utilities and Customers

EPA should conduct an impact analysis of its proposals on utility programs as it would be beneficial to the administrative process and possibly IRA implementation. EPA should assess whether its proposal will negatively impact utilities’ energy efficiency programs. By changing and limiting the range of natural gas appliances that can participate in the ENERGY STAR program, EPA may negatively affect state-approved utility energy efficiency programs that aid customers in obtaining efficient appliances.²³ Customers may no longer be able to participate and receive benefits from programs that require ENERGY STAR-certified appliances despite the fact that states have approved such programs and the programs reduce a customer’s energy consumption. EPA should fully understand the impact of its ENERGY STAR proposals on the incentives and rebates customers receive from utility programs.

I. EPA Should Expediently Update the ENERGY STAR Furnace Specification for Dual-Fuel Systems

In the 2024 Furnace Proposal, EPA states that it is “interested in the potential for dual-fuel HVAC systems to serve as a lower cost option in cold climates.” EPA is considering a new

²² The need to maintain the U.S. North and the U.S. South regional distinctions, as well as ongoing DOE Consumer Furnace Rule appeal, are discussed above and are incorporated in this section by reference.

²³ Examples of energy efficiency programs that incorporate ENERGY STAR include, but are not limited to: New Mexico Gas Company - Space Heating Rebates (<https://nmgcgetrebates.com/space-heating-rebates>); UGI - Gas Furnace Rebates (<https://www.ugi.com/rebates-for-home/natural-gas/furnace>); Southern California Gas - 2023 Home Energy-Efficiency Rebate Program (https://www.socalgas.com/sites/default/files/2022-01/2022_EE_SF_RebateApp.pdf); Washington Gas - Home Heating Rebates (<https://wgsmartssavings.com/programs-rebates/md/home-heating>); and PECO - Natural Gas Rebates and Credits (<https://www.peco.com/WaysToSave/ForYourHome/Pages/NaturalGasRebatesCredits.aspx>).

specification recognizing furnaces in the context of new dual fuel heating systems, *i.e.* furnace plus heat pump, relying on system metrics developed in collaboration with industry. As EPA notes in the 2024 Furnace Proposal “[b]ecause the furnaces in these systems will run on a limited basis, it may make sense to specify lower furnace efficiency in the interest of overall cost.” AGA supports and encourages EPA to work with stakeholders to finalize a test procedure, evaluate performance data and develop a proposed specification.

In the current California Energy code development process, California is in the process of adding a Section 141.0 regarding additions, alterations and repairs to existing buildings.²⁴ Specifically, Table 141.0- E-1 specifies new or replacement single zone air conditioner or heat pump requirements. Commentors are seeking clarification from the California Energy Commission on the definition of Single Zone Heat Pump (“SZHP”) and Single Zone Heat Pump + Economizer (“SZHP1”). Additionally, a question is under consideration on the use of dual-fuel heat pump being considered as equivalent SZHP or SZHP1. There is testimony on file in support of recognizing dual fuel heat pumps that would indeed fall into the same product category as a SZHP or SZHP1. In short, this would support the use of natural gas heating backup as part of a dual fuel system. AGA recommends that EPA review the California process and the items filed in the proceeding, specifically regarding dual-fuel systems since such products offer another opportunity for energy savings and emissions reductions in the ENERGY STAR program.

J. The ENERGY STAR Program Should Include Natural Gas Heat Pumps

AGA supports the inclusion of natural gas heat pumps into the ENERGY STAR program. Natural gas heat pumps are an emerging technology that are an ideal product that would fit into the EPA’s ENERGY STAR mission of promoting products that have substantial benefits but need support for wider market acceptance. Additionally, because of the difference in technology, natural gas heat pumps need to be a separate product class from the current natural gas furnace and boiler categories. There already is an American National Standard Institute (“ANSI”) standard for natural gas heat pumps, CSA/ANSI Z21.40.4 - CSA 2.94-2023. An ENERGY STAR rating for natural gas heat pumps would provide a much-needed boost for a home and business heating and cooling product that offers another choice for consumers. Currently there are several programs and incentives that recognize gas heat pumps as follows:

- The Consortium for Energy Efficiency (“CEE”) offers a Residential Heating and Cooling Systems Initiative that list different efficiency Tier levels for natural gas heat pumps.²⁵
- The ANSI ICC 700 National Green Building Standard® provides compliance incentives for the installation of natural gas heat pumps.

²⁴ See <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2025-building-energy-efficiency>.

²⁵ CEE “Residential Heating and Cooling Systems Initiative,” dated January 15, 2021, available at https://cee1.my.salesforce.com/sfc/p/#1U0000011m3T/a/7V000000Myah/AOtNYOCesb3W3dnNpW2HqaE9_nnQXOCX2MOeGPcwRT8; see also <https://cee1.org/program-resources/>.

- There are federal tax credits/benefits for natural gas heat pumps.²⁶

While these programs are important for promoting natural gas heat pumps, the official recognition of an ENERGY STAR for natural gas heat pumps would be far more effective in promoting these important efficient end use gas heating and cooling products.

K. A Federal Register Notice Would Ensure Stakeholder Involvement

EPA should amend its practices and procedures to ensure stakeholder involvement and it should publish proposals, such as the 2024 Furnace Proposal, in the Federal Register. It is AGA’s understanding that EPA follows its Standard Operating Procedure for Revising or Establishing an ENERGY STAR Product Specification dated April 2018 (“2018 Procedures”).²⁷ According to the pertinent parts of the 2018 Procedures, documents are to be posted on the ENERGY STAR website and notice is provided via an email distribution list open to interested partners, stakeholders and the general public. While emailing notices to interested stakeholders that have opted-in to receive such emails is convenient, such a distribution is not sufficient notice to all stakeholders. As a general matter, publication in the Federal Register is legally sufficient notice to all interested or affected persons,²⁸ as well as formal notice to the world.²⁹ In short, EPA should have widely publicized the proposal in the Federal Register to ensure public awareness of such notice. EPA should amend its procedures to ensure sufficient notice and robust stakeholder engagement.

L. The ENERGY STAR Program Should Fully Embrace the Use of Renewable Gases and Hydrogen

As stated in AGA’s June 22, 2023 comments, any revisions to the ENERGY STAR program should ensure that it does not hinder the current and future use of renewable gases and hydrogen in homes and businesses. AGA strongly supports expanding access to renewable gases in an effort to accelerate widespread accessibility and adoption of renewable and low-carbon energy sources. This is one of the reason AGA appreciates EPA changing course and not sunseting natural gas furnaces from the ENERGY STAR program, because it is those same furnaces that can utilize renewable gases and hydrogen. Due to the environmental benefits of renewable gases, EPA should ensure that such gases are fully leveraged to achieve decarbonization goals.

²⁶ See e.g., IRA Sec. 13301 (Energy Efficient Home Improvement Credit) and IRS, “Frequently asked questions about energy efficient home improvements and residential clean energy property credits” available at <https://www.irs.gov/pub/taxpros/fs-2022-40.pdf>.

²⁷ See <https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20SOP%20-%20Revising%20or%20Establishing%20an%20ENERGY%20STAR%20Product%20Specification.pdf>.

²⁸ *Friends of Sierra R.R., Inc. v. ICC*, 881 F.2d 663, 667-68 (9th Cir. 1989), cert. denied, 493 U.S. 1093, 110 S. Ct. 1166, 107 L. Ed. 2d 1069 (1990) (publication in the Federal Register is “legally sufficient notice to all interested or affected persons”).

²⁹ *Government of Guam v. United States*, 744 F.2d 699, 701 (9th Cir. 1984) (Federal Register publication constituted “formal notice to the world”).

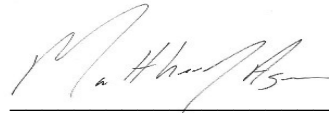
M. EPA has a Duty to Respond to Comments

AGA has raised issues regarding EPA's 2024 Furnace Proposal. EPA should respond to those concerns with a cogent and reasoned response supported by data and evidence.

IV. Conclusion

The American Gas Association respectfully requests that the Environmental Protection Agency consider these comments in this proceeding and not implement the first draft of the Version 5.0 ENERGY STAR furnace specifications proposed on April 16, 2024, for the reasons stated herein. If you have any questions regarding this submission, please do not hesitate to contact the undersigned.

Respectfully,



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Enclosures: Attachment A

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Attachment A

DOE's Consumer Furnace Rule Modeled
Data, Market Share by State and Region

Gas Furnace Market Share at Each AFUE

State	Region	80%	90%	91%	92%	93%	94%	95%	96%	97%	98%
Alaska	North	37%	0%	0%	9%	0%	0%	24%	27%	4%	0%
Colorado	North	44%	0%	0%	24%	1%	0%	10%	16%	4%	0%
Connecticut	North	33%	0%	0%	11%	0%	0%	25%	20%	12%	0%
Delaware	North	30%	0%	0%	22%	1%	0%	22%	20%	4%	1%
Idaho	North	34%	0%	0%	17%	0%	0%	33%	12%	2%	1%
Illinois	North	43%	0%	0%	18%	1%	0%	24%	12%	2%	0%
Indiana	North	35%	0%	0%	12%	0%	0%	30%	20%	2%	0%
Iowa	North	10%	0%	0%	3%	0%	1%	23%	59%	3%	0%
Kansas	North	53%	0%	0%	15%	0%	0%	20%	9%	1%	0%
Maine	North	27%	0%	0%	24%	0%	0%	17%	24%	7%	0%
Massachusetts	North	21%	0%	0%	23%	0%	0%	11%	37%	8%	0%
Michigan	North	27%	0%	0%	5%	0%	0%	26%	39%	3%	0%
Minnesota	North	19%	0%	0%	16%	0%	0%	17%	35%	12%	0%
Missouri	North	43%	0%	0%	19%	0%	0%	23%	13%	1%	0%
Montana	North	35%	0%	0%	11%	0%	1%	36%	14%	2%	1%
Nebraska	North	35%	1%	0%	11%	1%	2%	31%	16%	3%	0%
New Hampshire	North	27%	0%	0%	24%	0%	0%	17%	24%	7%	0%
New Jersey	North	41%	0%	0%	19%	0%	0%	15%	21%	1%	2%
New York	North	30%	0%	0%	19%	0%	0%	19%	29%	2%	1%
North Dakota	North	19%	0%	0%	17%	0%	1%	32%	23%	6%	1%
Ohio	North	35%	2%	0%	9%	0%	1%	27%	23%	3%	0%
Oregon	North	23%	0%	0%	14%	0%	0%	24%	32%	6%	0%
Pennsylvania	North	31%	0%	0%	20%	0%	0%	20%	26%	2%	0%
Rhode Island	North	42%	0%	0%	31%	0%	0%	11%	14%	1%	0%
South Dakota	North	19%	0%	0%	17%	0%	1%	32%	23%	6%	1%
Utah	North	36%	0%	0%	6%	0%	1%	38%	17%	3%	0%
Vermont	North	27%	0%	0%	24%	0%	0%	17%	24%	7%	0%
Washington	North	45%	0%	0%	5%	0%	0%	24%	23%	2%	0%
West Virginia	North	21%	0%	1%	25%	0%	1%	37%	11%	1%	3%
Wisconsin	North	7%	0%	0%	13%	0%	0%	34%	35%	9%	0%
Wyoming	North	35%	0%	0%	11%	0%	1%	36%	14%	2%	1%
Alabama	South	86%	0%	0%	7%	0%	0%	1%	5%	1%	0%
Arizona	South	82%	0%	0%	8%	0%	0%	4%	4%	0%	2%
Arkansas	South	81%	0%	0%	5%	0%	0%	4%	7%	1%	0%
California	South	74%	0%	0%	8%	0%	0%	7%	9%	1%	1%
District of Columbia	South	51%	0%	0%	18%	0%	1%	13%	14%	2%	0%
Florida	South	96%	0%	0%	2%	0%	0%	1%	1%	0%	1%
Georgia	South	87%	0%	0%	7%	0%	0%	2%	4%	0%	0%
Hawaii	South	74%	0%	0%	8%	0%	0%	7%	9%	1%	1%
Kentucky	South	41%	0%	0%	20%	0%	0%	21%	14%	2%	1%
Louisiana	South	93%	0%	0%	2%	0%	0%	2%	2%	0%	0%
Maryland	South	56%	0%	0%	19%	0%	1%	9%	13%	1%	0%
Mississippi	South	93%	0%	0%	1%	0%	0%	3%	2%	0%	1%
Nevada	South	91%	0%	0%	4%	0%	0%	2%	3%	0%	1%
New Mexico	South	78%	0%	0%	9%	1%	0%	3%	7%	1%	0%
North Carolina	South	40%	0%	0%	21%	0%	0%	9%	27%	0%	3%
Oklahoma	South	71%	0%	0%	3%	0%	0%	11%	13%	1%	0%
South Carolina	South	69%	0%	0%	20%	1%	0%	6%	3%	0%	1%
Tennessee	South	71%	0%	0%	17%	0%	0%	6%	5%	1%	0%
Texas	South	93%	0%	0%	3%	0%	0%	1%	3%	0%	0%
Virginia	South	61%	0%	0%	14%	0%	1%	12%	8%	2%	1%
	North	32%	0%	0%	14%	0%	0%	24%	25%	4%	0%
	South	76%	0%	0%	9%	0%	0%	6%	8%	1%	1%
	Total	50%	0%	0%	12%	0%	0%	16%	18%	2%	0%

Cumulative Gas Furnace Market Share at Each AFUE and Up

State	Region	80%	90%	91%	92%	93%	94%	95%	96%	97%	98%
Alaska	North	100%	63%	63%	63%	54%	54%	54%	31%	4%	0%
Colorado	North	100%	56%	56%	56%	31%	30%	30%	20%	4%	0%
Connecticut	North	100%	67%	67%	67%	56%	56%	56%	32%	12%	0%
Delaware	North	100%	70%	70%	70%	48%	48%	47%	25%	5%	1%
Idaho	North	100%	66%	66%	66%	49%	49%	49%	15%	3%	1%
Illinois	North	100%	57%	57%	57%	39%	38%	38%	14%	2%	0%
Indiana	North	100%	65%	65%	65%	53%	52%	52%	22%	3%	0%
Iowa	North	100%	90%	90%	89%	86%	86%	85%	62%	3%	0%
Kansas	North	100%	47%	47%	47%	32%	31%	31%	11%	1%	0%
Maine	North	100%	73%	73%	72%	49%	48%	48%	32%	7%	0%
Massachusetts	North	100%	79%	79%	79%	56%	56%	56%	45%	8%	0%
Michigan	North	100%	73%	73%	73%	68%	68%	68%	42%	3%	0%
Minnesota	North	100%	81%	81%	81%	65%	65%	65%	48%	12%	0%
Missouri	North	100%	57%	57%	57%	38%	37%	37%	14%	1%	0%
Montana	North	100%	65%	65%	65%	54%	53%	53%	17%	3%	1%
Nebraska	North	100%	65%	64%	64%	53%	52%	50%	19%	3%	0%
New Hampshire	North	100%	73%	73%	72%	49%	48%	48%	32%	7%	0%
New Jersey	North	100%	59%	59%	59%	40%	39%	39%	24%	3%	2%
New York	North	100%	70%	70%	70%	51%	51%	51%	32%	3%	1%
North Dakota	North	100%	81%	80%	80%	63%	63%	62%	30%	7%	1%
Ohio	North	100%	65%	64%	63%	54%	54%	54%	26%	3%	0%
Oregon	North	100%	77%	77%	77%	63%	63%	62%	38%	6%	0%
Pennsylvania	North	100%	69%	69%	69%	49%	49%	48%	28%	3%	0%
Rhode Island	North	100%	58%	58%	58%	27%	27%	27%	16%	1%	0%
South Dakota	North	100%	81%	80%	80%	63%	63%	62%	30%	7%	1%
Utah	North	100%	64%	64%	64%	59%	58%	57%	19%	3%	0%
Vermont	North	100%	73%	73%	72%	49%	48%	48%	32%	7%	0%
Washington	North	100%	55%	55%	55%	50%	50%	50%	26%	3%	0%
West Virginia	North	100%	79%	79%	78%	52%	52%	52%	15%	4%	3%
Wisconsin	North	100%	93%	93%	92%	79%	79%	79%	45%	9%	0%
Wyoming	North	100%	65%	65%	65%	54%	53%	53%	17%	3%	1%
Alabama	South	100%	14%	14%	14%	7%	7%	7%	6%	1%	0%
Arizona	South	100%	18%	18%	18%	10%	10%	10%	7%	2%	2%
Arkansas	South	100%	19%	19%	19%	13%	13%	13%	9%	1%	0%
California	South	100%	26%	26%	25%	18%	18%	17%	11%	1%	1%
District of Columbia	South	100%	49%	49%	49%	31%	30%	29%	17%	3%	0%
Florida	South	100%	4%	4%	4%	3%	3%	3%	2%	1%	1%
Georgia	South	100%	13%	13%	13%	7%	7%	7%	4%	0%	0%
Hawaii	South	100%	26%	26%	25%	18%	18%	17%	11%	1%	1%
Kentucky	South	100%	59%	58%	58%	38%	38%	38%	16%	3%	1%
Louisiana	South	100%	7%	7%	7%	5%	5%	5%	3%	1%	0%
Maryland	South	100%	44%	44%	44%	25%	24%	23%	15%	2%	0%
Mississippi	South	100%	7%	7%	7%	5%	5%	5%	3%	1%	1%
Nevada	South	100%	9%	9%	9%	5%	5%	5%	3%	1%	1%
New Mexico	South	100%	22%	21%	21%	12%	11%	11%	8%	1%	0%
North Carolina	South	100%	60%	60%	60%	39%	39%	39%	30%	3%	3%
Oklahoma	South	100%	29%	29%	29%	26%	26%	25%	15%	1%	0%
South Carolina	South	100%	31%	31%	31%	11%	10%	10%	4%	1%	1%
Tennessee	South	100%	29%	29%	29%	12%	12%	12%	6%	1%	0%
Texas	South	100%	7%	7%	7%	4%	4%	4%	3%	0%	0%
Virginia	South	100%	39%	39%	38%	25%	25%	23%	11%	3%	1%
	North	100%	68%	67%	67%	53%	52%	52%	29%	4%	0%
	South	100%	24%	24%	24%	15%	15%	15%	9%	1%	1%
	Total	100%	50%	49%	49%	37%	37%	37%	21%	3%	0%