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May 16th, 2024

Submitted via: HVAC@energystar.gov

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

Re: Draft Comment Text: Product Specification for Furnaces, Eligibility Criteria, Draft 1, Version 5.0

Dear Ms. Bailey:

ONE Gas, Inc. is pleased to provide its comments on the ENERGY STAR® proposal of Product Specification for Furnaces, Eligibility Criteria, Draft 1, Version 5.0[1] hereafter referred to as "Draft 1 Criteria." Headquartered in Tulsa, Oklahoma, ONE Gas proudly provides natural gas distribution services to more than 2.3 million customers through three operating divisions – Oklahoma Natural Gas, Kansas Gas Service, and Texas Gas Service.

In addition to supplying safe, reliable, and low-cost energy, ONE Gas promotes residential and commercial customer energy efficiency to meet the needs of our customers, including low-income consumer groups. In 2023, ONE Gas received a rating of AAA (on a scale of AAA to CCC) in the MSCI ESG Ratings assessment. ONE Gas also holds a "Prime" rating in ESG from Institutional Shareholder Services (ISS). Additionally, ONE Gas maintains a relationship with GTI Energy and supports GTI's efforts to facilitate the research and development of efficient natural gas-fired appliances and technologies while exploring opportunities for the recapture, reduction and reuse of CO2 emissions.

The recent efforts to eliminate and/or reduce the ENERGY STAR ratings for certain natural gas furnaces are contrary to our Company's efforts to provide safe, reliable and low-cost energy to our customers. Therefore, ONE Gas opposes elimination of regional thresholds for furnaces. The Agency's proposed use of a stringent threshold on a national basis discriminates unfavorably against the interests and cost effectiveness of ENERGY STAR rated natural gas furnace customers

[1] ENERGY STAR ® Program Requirements Product Specification for Furnaces, Eligibility Criteria, Draft 1, Version 5.0, April 16, 2024.

who are in the ONE Gas service territories in Texas and Oklahoma. These customers are residents in the areas which are currently classified as being in the "U.S. South Region."

In response to the proposal, ONE Gas proposes the following remedies and requests:

- We encourage the ENERGY Star program to maintain its current baseline of 90% AFUE for natural gas furnaces;

  OR

- Due to the projected minimal upfront cost increase and the larger availability of models, ONE Gas recommends an increase to 92% AFUE with an implementation timeline of 2031 or 2032 to align with current IRA fund distribution related to home energy rebate programs;

  OR

- Because the DOE's final furnace rule is under litigation and a court order is pending, we encourage ENERGY STAR to maintain the current baseline level of 90% AFUE and suspend the proposal.
- We encourage ENERGY STAR to retain the regional distinction for qualifying criteria for separate recognition of U.S. South and North regional minimum efficiencies. As emphasized in these comments, the impacts upon natural gas furnace consumers in the South Region and relevance of ENERGY STAR for furnaces generally, are threatened by arbitrarily raising qualifying criteria to a level that may be more suited for northern heating demands.
- ONE Gas encourages ENERGY STAR to provide to the public, the historical data they used to calculate and assume the lack of "uptake" or purchasing levels in the US South Region.
- In revisions to Draft 1, we encourage ENERGY STAR to add a proposal for hybrid heating systems (heat pumps with gas furnaces for supplemental heat) with a minimum efficiency for gas furnaces set to accommodate Category I furnaces. Category I furnaces have low heating duty cycles and are compatible with existing Category I furnace vent systems. The lower installation costs in retrofit applications associated with hybrid heating systems are more suitable for middle- and low-income consumers and increases their participation in ENERGY STAR. Further, middle- and low-income consumers may also benefit from this opportunity by avoiding the punitive expense of electric resistance heating during the largest heating days of the year.
- ONE Gas encourages ENERGY STAR to revise its market estimates to better account for the: actual shipments and receipt of equipment and appliances; product prices by efficiencies which are readily available; installed costs (separately addressed for new construction and retrofit installations); baseline market penetration of high efficiency furnaces; and other market factors impacting furnaces with and without ENERGY STAR.

Presumed causes for poor ENERGY STAR furnace acceptance in the South Region

The current ENERGY STAR criterion for furnaces in this region is a minimum annual fuel use efficiency (AFUE) of 90%. On ENERGY STAR's May 1, 2024, webinar, ENERGY STAR staff rationalized elimination of this regional distinction based upon "no uptake" or no purchases of ENERGY STAR furnaces in this region as a basis for eliminating it. ENERGY STAR is using flawed logic in applying elimination of the South Region threshold based on lack of consumer purchases for two key reasons:

Increasing the South regional efficiency threshold from 90% to a national 97% minimum AFUE will not address appliance purchases. Instead, the proposed rating increase will exacerbate market conditions already operating against adoption of ENERGY STAR furnaces in this region by requiring even higher purchase outlays by consumers and decreasing availability of products. It is important to note that the current market share for 97% AFUE rated natural gas furnace models is 4.5%. Currently, ENERGY STAR's estimated "installed cost difference" between these two efficiencies (which serve as the basis for purchase paybacks), is underestimated as a $159 cost premium for 97% AFUE furnaces2 when a simple web search of furnace cash-and-carry furnace prices (not including installation) vary amongst manufacturers and averages around a $800 cost premium. Purchases will likely become infeasible with promulgation of the proposed national 97% AFUE minimum in ONE Gas' Texas and Oklahoma service territories, and uptake in ONE Gas' Kansas service territory will likewise be disincentivized. In addition to the affordability concerns, the availability of high-efficiency, ENERGY STAR-rated natural gas furnaces will be significantly reduced for ONE Gas customers.

Purchases of natural gas furnaces are more directly related to state and local incentives for ENERGY STAR products than directly to the setting of product criteria. Only, a few state and local programs in the U. S. South Region offer incentives for the purchase of above federal minimum efficiency furnaces. It is likely that returns from such promotions in warmer climates (in the form of reduced energy use and heating bills) are unavailable because of the low heating loads. ONE Gas' Texas and Oklahoma service territories are covered by Climate Zones 2 through 4 for the most part, which are cooling dominated. Manipulating ENERGY STAR qualifying criteria under these circumstances will not be effective as a means of changing consumer behavior in purchasing central heating systems. ENERGY STAR's efforts would be more productive addressing adoption of its product criteria in state and local energy efficiency programs offered by governments and utilities.

Based on the above, ONE Gas requests that the ENERGY STAR program provide to the public, the historical data they used to calculate and assume the lack of "uptake" or purchasing levels in the US South Region.

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[2] "ENERGY STAR Version 5.0 Furnace Data Package – April, 16th, 2024," Table 3.

<u>Impacts upon middle- and low-income natural gas households, especially in the South Region</u>

The significantly underestimated installed costs faced by consumers as a result of the proposed Draft 1 criteria, are likely to disqualify middle- and low-income households from purchasing such furnaces. This is due to adding approximately an average additional $800 to the price of the furnace alone, on top of an already-underestimated installed cost for ENERGY STAR furnaces under current as well as proposed, minimum AFUEs. (See, Table 3 below, for the ENERGY STAR analysis forecasts pf installed costs ranging from $3,711 to $3,879 across the range of Category IV (condensing/positive vent pressure) furnaces.)

Table 3: Non-Weatherized Gas Furnace Payback

EL (AFUE)	Installed Cost	Annual Operating Cost*	Annual Savings (MMBtu)*	EPA Calculated Simple Payback (years)**	Notes
0 - 80%	$ 3,310	$ 493	-	-	
1 - 90%	$ 3,711	$ 458	5.6	11.4	
2 - 92%	$ 3,720	$ 452	6.6	9.9	
3 - 95%	$ 3,727	$ 443	8	8.4	ENERGY STAR V4.1
97%	$ 3,879	$ 439	9.2	10.5	Proposed ENERGY STAR V5.0 AFUE
4 - 98%	$ 3,879	$ 437	9.8	10.1	

** Interpolated 97% AFUE between the DOE efficiency levels of 95% and 98% for annual operating costs and savings*

*** The payback at 97% AFUE is likely to be shorter than in this table, since the installed cost was taken to be the 98% AFUE installed cost. Cost can increase non-linearly with efficiency, so it would be inaccurate to interpolate*

Source: EERE-2014-BT-STD-0031-0320 Tables 7.4.1 & 8.7.1

The proposed range of costs dramatically underestimates installed costs quoted for these furnace products, providing a direct economic disincentive to shop for ENERGY STAR furnaces. Low- and middle-income consumers have limited opportunity to finance such purchases, and the “EPA calculated simple paybacks” in its analysis, ranging from 8.4 to 11.4 years even under ENERGY STAR’s unrealistic installed costs, would not provide sufficient economic incentive to consumers to seek out additional financing. Since most jurisdictions in ONE Gas’s service territories do not have subsidies (based on ENERGY STAR or other programs) to defer the higher incremental costs, consumers would lack programmatic or other subsidized means for absorbing the additional cost. Justifiable installed costs for use in the ENERGY STAR payback analysis would further disincentivize consumers, but at this time, other arguable assumptions used by ENERGY STAR in the payback calculation (e.g., predicted energy savings) go beyond the issue of furnace prices. More realistic costs and savings assumptions will extend payback periods.

<u>Payback calculations interpolated from 95% and 98% AFUE analysis</u>

On the webinar, ICF staff commented that the payback calculations provided in its analysis document were interpolated, assuming linearity in paybacks that are unlikely to be realistic. As a result, ONE Gas is suggesting that a revised analysis should be provided which presents calculated paybacks based upon documented gas furnace costs and energy and cost savings.

Assumed availability of 97% AFUE furnace products

ENERGY STAR presumes 97% AFUE furnace market availability and installations based upon certified furnace efficiency listings, not upon actual shipments of gas furnaces by efficiency. Specifically, ENERGY STAR presumes that 4.5% of furnaces sold are AFUE of 97% or higher, based on model listings. However, according to the U. S. Department of Energy's (DOE) technical support documents (TSDs) developed over the past 10 years, actual furnace sales at these efficiency levels will reach just 1.3%, forecasted out at least as far as year 2030. Federal minimum efficiency standards proceedings have historically taken issue with the use of model listings as a basis for estimation of market penetration, and in recent years, DOE has changed its approach to develop shipments data to describe the furnace market. We encourage the ENERGY STAR program to do the same and assess the actual availability of furnace models and distribution of furnace manufacturers producing products at the 97% AFUE threshold and higher.

Presumption of federal minimum efficiency standard promulgation at 95% AFUE

The DOE final rule on non-weatherized gas furnaces requiring a 95% AFUE minimum is currently under challenge in federal court. Additionally, an accompanying "interpretative rule" prohibiting DOE's authority to set separate product class efficiencies for Category IV and Category I (non-condensing combustion/negative vent pressure) furnaces is simultaneously being challenged. As a result, ENERGY STAR should suspend its proposal as presented in Draft 1, until these federal court cases are resolved, which is anticipated for late 2024 at the earliest. Since ENERGY STAR has argued that the Draft 1 furnace efficiency is justified based upon the new federal minimum efficiency and since that efficiency is under court challenge, we encourage ENERGY STAR to defer setting a furnace minimum efficiency until it can reasonably make the efficiency criterion consistent with any new federal minimum efficiency that arises out of these court challenges.

Use of federal Inflation Reduction Act (IRA) efficiency targets as justification for the minimum threshold of 97% AFUE

ENERGY STAR argues that the 97% AFUE efficiency threshold is justified based upon IRA program efficiency requirements.3 However, the IRA requirements for furnace efficiency were promulgated without rulemaking, and their setting is not consistent with ENERGY STAR program criteria (as discussed in these comments below) dealing with ENERGY STAR process and procedure. ENERGY STAR needs to justify making any changes in its furnace efficiency thresholds based upon compliance with its own procedures and not to arbitrarily (and potentially unlawfully) use information contained in separate federal policy. Furthermore, ENERGY STAR

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[3] https://www.energystar.gov/about/federal-tax-credits/furnaces-natural-gas-oil .

should document how its justification of the eventual revisions of its efficiency criteria (beyond Draft 1) meets its own procedures and program criteria.

Potential concerns and conflict with DOE's Home Energy Rebate Programs

ONE Gas is concerned as to how the ENERGY STAR Draft 1, Version 5.0, will directly affect the implementation of the DOE's Home Energy Rebate Programs. The current rebate program guidance includes language to require installation of ENERGY STAR certified natural gas appliances.[4] If the proposed 97%AFUE is finalized, ONE Gas fears the significant diminishment of customer choice will occur due to the very low product availability and inadequate manufacturer shipments of such appliances. As a result, utility customers across the US Southern Region (to include the ONE Gas service territories) will not receive the upfront cost reduction provided by DOE Home Energy Rebate Programs or otherwise experience the purported energy bill savings associated with potential high efficiency natural gas appliance purchases. ONE Gas views this proposed efficiency level as in conflict with the intent of the DOE's rebate programs, which is to reduce any cost burden for low-income customers and those seeking to save on their utility bills.

ENERGY STAR Process and Procedural Comments

The proposed ENERGY STAR furnace minimum efficiency threshold of 97% has not met the ENERGY STAR program requirements documented in either its "Strategic Vision and Guiding Principles"5 or its "Standard Operating Procedure [for] Revising or Establishing an ENERGY STAR Product Specification,"6 hereafter respectively referred to as the "Guiding Principles" and "SOP," respectively. While the authorization of voluntary energy efficiency programs provided by the Energy Policy and Conservation Act (EPCA)7 provides ENERGY STAR with broad boundaries for setting performance criteria for products receiving the ENERGY STAR label, the proposed revision to the furnace qualifying criteria proposed in the Draft 1 specifications arbitrarily deviate from proven historical program criteria for setting efficiency thresholds including:

- Significant increase in market penetration of ENERGY STAR qualified models. Following on the discussion above on "uptake" and the negative impact of raising the minimum threshold in the South Region to 97%, this contribution to increased efficiency will not happen.

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[4] https://www.energy.gov/sites/default/files/2023-10/home-energy-rebate-programs-requirements-and-application-instructions_10-13-2023.pdf.

[5] "ENERGY STAR® Products Program Strategic Vision and Guiding Principles," ENERGY STAR, January 2012 (https://www.energystar.gov/ia/partners/prod_development/downloads/guiding_principles_2012.pdf).

[6] "Standard Operating Procedure: Revising or Establishing an ENERGY STAR Product Specification," ENERGY STAR, April 2018. (https://www.energystar.gov/ia/partners/prod_development/downloads/guiding_principles_2012.pdf).

[7] Energy Policy and Conservation Act of 1975 (EPCA) (Pub.L. 94–163, 89 Stat. 871, enacted December 22, 1975).

- Change in the Federal minimum efficiency standards. As discussed above, the presumed increase in federal minimum efficiency to 95% is premature and should not be used to justify the ENERGY STAR minimum AFUE threshold to 97%.

- Product availability limitations.

- ENERGY STAR has not addressed potential product availability constraints, having based its understanding of the current market on product listings instead of actual market availability.

- Issues with consumers realizing expected energy savings.

- Consumers will not realize energy savings if they cannot meet the financial burdens of installing qualifying ENERGY STAR furnaces[8]

- We encourage ENERGY STAR to reevaluate its Draft 1 revision to require 97% AFUE and higher efficiency for furnaces for the reasons stated above.

ONE Gas appreciates the opportunity to comment on this important issue and looks forward to working with the EPA and the ENERGY STAR Program to reach shared energy efficiency and climate change goals.

Sincerely,

Jason Ketchum
Vice President, Commercial Activities

[8] "Guiding Principles," page 6.