

Comments of ONE Gas, Inc. on ENERGY STAR® Program Requirements: Product Specification for Residential Water Heaters, Eligibility Criteria, Draft 1, Version

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ONE Gas, Inc. is pleased to provide its comments on the ENERGY STAR®, Draft 1, Version 5.0 specifications for residential water heaters.¹ ONE Gas provides natural gas distribution services to more than 2 million customers in Oklahoma, Kansas, and Texas and promotes residential and commercial customer energy efficiency to meet the needs of consumers, including low-income consumer groups.

ONE Gas is not supportive of ENERGY STAR®'s proposal for gas-fired residential storage water heaters, the requirements of which cannot be met by currently available and listed products. The ENERGY STAR® Products Program demonstrates success in implementing voluntary appliance efficiency thresholds for residential appliances by employing consistent program criteria documented in its "Strategic Vision and Guiding Principles"² and its "Standard Operating Procedure [for] Revising or Establishing an ENERGY STAR® Product Specification,"³ hereafter 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)⁴ provides ENERGY STAR® with broad boundaries for setting performance criteria for products receiving the ENERGY STAR® label, the proposed Draft 1, Version 5.0 specifications arbitrarily deviate from proven historical program criteria for setting efficiency thresholds for gas-fired residential storage water heaters set by the Guiding Principles and the SOP.

As acknowledge by ENERGY STAR® in the Draft 1, Version 5.0 document, gas-fired storage water heater products meeting the proposed efficiency thresholds (Uniform Energy Factor -- UEF \geq 1.00; First-Hour Rating -- FHR \geq 51 gallons per hour) are not currently listed in the manufacturer directory maintained by the Air-Conditioning, Heating and Refrigeration Institute (AHRI) and, as such, are unavailable to consumers:

"Note: Consistent with the Biden Administration's commitment to decarbonization, EPA is proposing more stringent criteria for gas-fired storage water heaters, while allowing them to remain in scope as familiarity with electric alternatives grows. The proposed gas-fired storage water heater level could be met with developments in technologies like gas heat pump water heaters. **EPA was unable to determine a cost-effective level that provides meaningful differentiation for units on the market** [emphasis added]. The proposed criteria will increase the annual energy savings that EPA and utility partners can claim to 80 therms (\$81) per year for gas-fired water heaters 55 gallons or less and to 46 therms (\$46) per year for gas-fired water heaters greater than 55 gallons. We have not estimated payback; **since there are currently no products on the market**

¹ (https://www.energystar.gov/products/spec/residential_water_heaters_specification_version_5_0_pdf)

² "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).

³ "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).

⁴ Energy Policy and Conservation Act of 1975 (EPCA) (Pub.L. 94-163, 89 Stat. 871, enacted December 22, 1975).

meeting these criteria, the cost is unclear [emphasis added]. If all gas storage water heaters sold in the US met these requirements, the national savings would grow to over 4,875 million therms, or over 25 MMT CO₂e. Savings are based on a comparison of the ENERGY STAR® requirements to the federal minimum standard for typical tank sizes of 40 and 65 gallons. EPA welcomes comments on the proposed criteria, particularly on appropriate safety standards and any such practical barriers to products entering the market.”

The proposed energy efficiency thresholds require implementation of gas-fired heat pump technology, which is not embodied in listed gas-fired residential water heater products. Similarly, no products are available that simultaneously meet the proposed Draft 1, Version 5.0 efficiency requirements and the national consensus standards for safety covering these products.⁵ As a result of these two deficiencies in available consumer products, the efficiency thresholds are in direct conflict with the ENERGY STAR® Guiding Principles and SOP. Specifically with respect to the Guiding Principles, ENERGY STAR® considerations “prompting a revision” to specifications include:

“...

- Significant increase in market penetration of ENERGY STAR® qualified models
- Change in the Federal minimum efficiency standards
- Technological advancements
- Product availability limitations
- Issues with consumers realizing expected energy savings
- Performance or quality issues
- Issues with test procedures.”⁶

The proposed specification requiring heat pump technology falls short on “market penetration” since no market presence exists, actual product implementation of “technology advancements,” “product availability limitations” because qualifying products are unavailable, and information on “performance or quality issues.”

With respect to the ENERGY STAR® SOP, ENERGY STAR must take into consideration the following among its various criteria:

“3. Analysis of Performance Data

EPA’s ENERGY STAR® specification process is data driven. Proposed levels are generally based on available ENERGY STAR certified product data and DOE’s Compliance Certification Management System of certified ratings, sometimes supplemented by data offered by stakeholders during the specification development process. At the earliest possible point in the process, EPA shares data

⁵ ANSI-Recognized CSA/ANSI Z21.10.1:19; CSA 4.1:19, “Gas Water Heaters, Volume 1, Storage Water Heaters with Input Ratings of 75,000 Btu per Hour or Less,” CSA Group, Cleveland, Ohio.

⁶ “Guiding Principles,” page 6.

relied upon in specification development, including publicly available performance data (or the source where large data sets are used), the Agency’s payback analysis in cases where a cost differential for more efficient products exists, and an estimate of savings.”⁷

This analytical framework cannot be applied for products not in manufacture or in the consumer market.

Because gas-fired storage water heaters qualifying to the Draft 1, Version 5.0 performance specifications are not in the market, proposed cost savings discussed in the Draft 1, Version 5.0 and as discussed in the quoted material above are hypothetical and unjustified. As a consequence, potential savings suggested as available to consumers are illusory and may distort consumer behavior by creating demand that cannot be met by available products and, with respect to existing gas-fired water heaters, removing a guideline that aids consumers in differentiating among products on the basis of efficiency. ONE Gas asks how the following text from the SOP would be applied for estimating market impacts where products are unavailable:

“In limited scenarios, establishing requirements that reflect the performance of the highest efficiency models available sometimes requires the Agency to go beyond the data at hand and anticipate market trends.”⁸

While this latitude provided to ENERGY STAR® may be reasonable for new technologies that do not have fully developed market prospects, what scenarios would apply to a case where products are unavailable?

The lack of available products meeting the new specifications also undermines gas utilities as ENERGY STAR® partners and their ability to offer rebates, raising questions over whether ENERGY STAR® should serve as the basis for utility-sponsored appliance efficiency programs or as a criterion for offering consumer rebates. Alternatives exist for natural gas utilities, including energy efficiency program development around high efficiency thresholds for residential gas-fired water heaters according to their federal EnergyGuide ratings and efficiencies relative to competing models.⁹ The EnergyGuide program, administered by the Federal Trade Commission with support from the Department of Energy, provides an objective basis for product comparisons and is implemented through formal rulemaking procedures conforming to the Administrative Procedures Act (APA).¹⁰ Past recommendations for ENERGY STAR® to implement similar formal procedures, transparency, and implementation of the principles of the APA, such as those suggested by the Association of Home Appliance Manufacturers (AHAM), have not been implemented.¹¹

The magnitude of the change for residential gas-fired storage water heaters is particularly noteworthy when compared to past ENERGY STAR® recognition of high-efficiency water heaters. In 2014, ENERGY STAR® staff highlighted in discussion of Draft 1, Version 3.0 of the performance specifications that “about 30%” of models of \leq 55-gallon storage water heaters met the then-proposed 0.67 minimum

⁷“SOP,” page 1.

⁸ Id.

⁹ <https://www.ftc.gov/news-events/media-resources/tools-consumers/energyguide-labels>.

¹⁰ The Administrative Procedure Act, Pub.L. 79–404, 60 Stat. 237, enacted June 11, 1946.

¹¹ Testimony of Joseph M. McGuire, President and Chief Executive Officer, Association of Home Appliance Manufacturers Before the Energy and Commerce Subcommittee on Energy and Power, U.S. House of Representatives on the Discussion Draft, Energy Star Reform Act of 2017, November 7, 2017.

energy factor (EF).¹² As of November 2021 and according to ENERGY STAR® and AHRI data, 31.8% of all gas-fired residential storage water heaters meet the current minimum UEF promulgated under Version 4.0. Draft 1, Version 5.0 for these products (including “residential duty, commercial storage water heaters”) would be 0%.

Based upon these issues, ENERGY STAR® should suspend development of Version 5.0 changes to gas-fired residential storage water heater efficiencies from the Version 4.0 criteria and revisit Version 5.0 coverage using more complete consideration of its Guiding Principles and SOP and using more transparent processes conforming to objective requirements such as those found under the APA in developing product specifications.

This concludes the comments of ONE Gas on the proposed ENERGY STAR® performance specifications. Not addressed are competitive issues between natural gas and electric water heaters or issues associated with instantaneous gas-fired water heaters. ONE Gas looks forward to a broader discussion of ENERGY STAR®’s proposals in preparation of its “Draft 2” of the Version 5.0 performance specifications and is prepared to discuss its comments with ENERGY STAR®.

¹² A. Daken, U. S. EPA, “ENERGY STAR® Water Heaters, Draft 1 Version 3.0 Stakeholder Meeting.” April 16, 2014, page 19.