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May 16, 2024

Ms. Abigail Daken
Manager, ENERGY STAR HVAC Program
United States Environmental Protection Agency
Washington, DC 20460
(Sent via email to HVAC@energystar.gov)

Re: AHRI-HRAI Comments to ENERGY STAR® Residential Furnaces Version 5.0 Draft 1 Specification

Dear Ms. Daken,

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) and the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) (collectively, the "Joint Commenters"), are submitting these comments in response to the United States Environmental Protection Agency (EPA) ENERGY STAR® proposal to update the Specification residential furnaces Version 5.0 in Draft 1, issued on April 16, 2024.

The Joint Commenters support EPA's proposal to update the ENERGY STAR Specification for Furnaces. The increase in stringency for the gas furnace requirement to 97 annual fuel utilization efficiency (AFUE) and for the oil furnace requirement to 87 AFUE, is appropriate. The Joint Commenters appreciate EPA recognizing the investment that ENERGY STAR brand owner and utility partners have made in certifying and promoting products in these categories. In Canada, sales for natural gas and propane gas furnaces accounted for a significant portion of energy savings associated with ENERGY STAR products sold in 2021.[1] An effective date in 2026 is appropriate. Updating this specification ensures continued consumer choice.

Dual fuel heat pumps (also known as 'dual energy' or 'hybrid' systems) do not have a combined seasonal efficiency metric that captures the effect of heating with the combination of an electric air-source heat pump and fuel-fired furnace. Dual-fuel heat pumps offer a lower-carbon heating solution well-suited for heating homes in colder climates. The Joint Commenters would like EPA to consider for the furnace ENERGY STAR requirement to be at an AFUE greater than or equal to 95, when paired with a heat pump, in a dual fuel system.[2]

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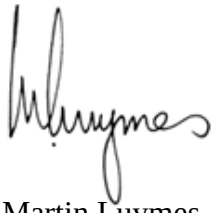
[1] ENERGY STAR® Canada Annual Report 2021, 2023, https://natural-resources.canada.ca/sites/nrcan/files/oee/pdf/energystar/english/ESTAR%202021%20Annual%20Report(1).pdf.

[2] New AHRI Standard 1600-2024 includes Appendix L, a calculation procedure to represent the seasonal site efficiency of dual fuel systems and thus enable comparison of various combinations of equipment. However, the heat pump efficiency rating for this procedure is the Seasonal Heating and Off-mode Rated Efficiency (SHORE), which is under consideration by

Version 5.0 Draft 1, with proposed additions, is a technology neutral strategy consistent with promoting the responsible use of all energy sources, while recognizing the importance that energy efficiency and fuel diversity play in meeting future energy demands. Fuel flexibility provides states, provinces, localities, and municipalities the opportunity to benefit from a wide range of energy efficient products that lowers energy usage and customers' utility bills, while ensuring consumers have choices in selecting the product that works best for their space heating needs.

The Joint Commenters support ENERGY STAR programs predicated on meeting reasonable performance requirements that consumers can afford. We appreciate the opportunity to provide these comments. If you have any questions regarding this submission, please do not hesitate to contact Laura Petrillo-Groh, lpetrillo-groh@ahrinet.org.

Sincerely,



Martin Luymes
HRAI
Vice President, Government
And Stakeholder Relations

Laura Petrillo-Groh
AHRI
Senior Director, Regulatory Affairs

the Department of Energy as the test procedure that will be applicable when new efficiency minimums are adopted, likely in 2030. The procedure leverages existing test data and metrics already available to OEMs of such combined equipment (i.e. no additional testing is required for this calculation). Longer term, this would be the appropriate metric for dual fuel systems.