













July 7, 2023

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

Submission via <u>HVAC@energystar.gov</u>; <u>Daken.Abigail@epa.gov</u>; <u>Tapani.holly@epa.gov</u>

Re: EPA Proposal to Sunset the ENERGY STAR Boilers Specification and Launching a New Specification to Cover Heat Pump Hydronic Heating Appliances (Boiler Sunset Proposal)

Dear ENERGY STAR:

The National Propane Gas Association (NPGA), National Energy & Fuels Institute (NEFI), Energy Marketers of America (EMA), American Gas Association (AGA), American Public Gas Association (APGA), Oilheat Manufacturers Association (OMA), and Plumbing-Heating-Cooling Contractors—National Association (PHCC) (collectively, Commenters) respectfully submit these joint comments in response to the ENERGY STAR Boiler Sunset Proposal by the Environmental Protection Agency (EPA or Agency). The EPA published the proposal to seek feedback on additional information that will inform development of a proposed test method and first draft specification.

NPGA is the national trade association of the propane industry with a membership of about 2,400 companies, and 36 state and regional associations that represent members in all 50 states. Membership in NPGA includes retail marketers of propane gas who deliver the fuel to the end user, propane producers, transporters and wholesalers, and manufacturers and distributors of equipment, containers, and appliances. Propane gas fuels millions of installations nationwide for home and commercial heating and cooking, in

¹ See Email from ENERGY STAR; ENERGY STAR Residential Boilers Discussion Guide and Early Stakeholder Feedback; June 5, 2023; see also

https://www.energystar.gov/sites/default/files/asset/document/ENERGY%20STAR%20Residential%20Boilers%20 Discussion%20Guide_0.pdf?_gl=1*103ldbi*_ga*MTAwNjkzMjcyOS4xNjcwNDI3MzMw*_ga_S0KJTVVLQ6*M TY4NTk4ODU4Ny4yODEuMS4xNjg1OTg5MzA5LjAuMC4w.
² Id.

agriculture, industrial processing, and as a clean air alternative engine fuel for both over-the-road vehicles and industrial lift trucks. Roughly 75% of NPGA's members have fewer than 100 employees, and are considered small businesses. NPGA members supply propane to consumers who utilize propane-fueled boilers. The proposal directly addresses products which currently, and in the future, may rely on propane for fuel, and as such, the proposal has the potential to have a direct and significant impact on NPGA's members.

Established in 1942, NEFI, formerly known as the New England Fuel Institute, is a national trade association that represents over 400 wholesale and retail distributors of safe, reliable liquid heating fuels and related service companies. Our retail members, often referred to as "fuel dealers," deliver warmth and comfort to millions of American homes and businesses each winter. NEFI represents both fuel delivery and "full service" businesses that extend their services beyond fuel delivery to the sale, installation, and maintenance of various HVAC systems. These include oil- and biofuel-fired furnaces and boilers, gas systems, water heaters, and electric air source heat pumps. Most NEFI members are small, multigenerational family businesses, averaging around 28 full-time equivalent employees.

EMA is a federation of 48 state and regional trade associations representing family-owned and operated small business energy marketers throughout the United States. EMA members supply 80 percent of all finished motor fuels nationwide on the wholesale and retail level. EMA also represents heating fuel dealers and distributors across the country. EMA heating fuel marketers also install and service Energy Star rated residential and commercial heating and cooling appliances including liquid fuel furnaces and boilers, HVAC systems, electric heat pumps, and natural gas and propane appliances.

AGA, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 77 million residential, commercial and industrial natural gas customers in the U.S., of which 96 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. Today, natural gas meets nearly one-third of the United States' energy needs.³ Currently, 52% of U.S. households use natural gas for space heating in their homes.⁴

APGA is the trade association for more than 730 communities across the U.S. that own and operate their retail natural gas distribution entities. They include not-for-profit gas distribution systems owned by municipalities and other local government entities, all locally accountable to the citizens they serve. Public gas systems focus on providing safe, reliable, and affordable energy to their customers and support their communities by delivering fuel to be used for cooking, clothes drying, and space and water heating, as well as for various commercial and industrial applications.⁵

OMA is a not-for-profit association that represents liquid petroleum and biofuel powered heating equipment throughout North America. OMA's members' products provide the primary heating and domestic hot water source for almost 6-million American homes.

Established in 1883, PHCC represents approximately 3,200 plumbing and HVAC open shop and union contractor members who employ over 64,000 plumbing and HVAC professionals across the United States.

Authority

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³ For more information, please visit <u>www.aga.org</u>.

⁴ U.S. Energy Information Administration, available at https://www.eia.gov/todayinenergy/detail.php?id=55940.

⁵ For more information, please visit www.apga.org.

The ENERGY STAR program is run by the EPA, in coordination with the Department of Energy (DOE).⁶ While U.S. code provides the EPA and the DOE the authority to update and change the program,⁷ the code provides for certain conditions for such changes and updates. Specifically, the EPA and the DOE must provide sufficient lead time prior to the applicable effective date for a new or significant revision to a product category, specification, or criterion.⁸ The code mandates a lead time of 270 days, unless otherwise specified by the Agency or Department. Given that the EPA gave notice of this change on June 5, 2023,⁹ with a potential effective date to end certifications of December 31, 2023, the EPA has provided only 210 days. The EPA provides no information as to why they have decreased the lead time on a significant revision, and no justification as to why the circumstances may justify such a deviation. As a precedential matter, the effective date of any change should be suspended to be in compliance with the relevant statutes, absent any sufficient justification.

Further, the proposal directly contradicts the purpose and mission of ENERGY STAR. On its website, ENERGY STAR states that the "label provides simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions." However, the proposal is unequivocally biased in favor of purchasing electric air-to-water heat pumps, without offering evidence. The EPA confirmed its bias in its June 21 ENERGY STAR Residential Boilers Discussion Guide webinar, claiming that it was proposing to sunset the certification for fuel-fired boilers in favor of electrification¹¹ and that it was their goal to eliminate fossil fuels at the residential level. ¹²

Ultimately, the paucity of evidence also undermines the credibility of the ENERGY STAR label, because consumers and businesses cannot point to research or analysis to support the EPA's claims.

Feedback

The EPA's proposal does not provide evidence on how it is in compliance with its enabling legislation, which calls for ENERGY STAR to promote energy efficiency, reduce pollution, enhance public awareness, preserve the integrity of the ENERGY STAR label, regularly update product criteria, or solicit comments from interested parties. Neither the aforementioned webinar, nor the announcement, adhered to these stated goals, or provided evidence that the EPA's preferred electric products were the most efficient products for consumers. In fact, by only promoting the proposal to a small list-serve and not through widespread channels like the *Federal Register*, the EPA has abdicated its duties under the Energy Policy Act of 2005. The Boiler Sunset Proposal is arbitrary, capricious, and without a basis in fact. Commenters suggest that the EPA submit the proposal to the normal course of notice and comment rulemaking, pursuant to the Administrative Procedures Act, so the Agency can provide a basis for its decision and solicit public feedback and evaluation of its proposal.

Emissions

⁹ EPA Webinar on Boiler Sunset, June 21, 2023 at 16:00.

¹⁰ About ENERGY STAR | ENERGY STAR (last visited June 2, 2023).

¹¹ EPA Webinar on Boiler Sunset, June 21, 2023 at 11:00.

¹² EPA Webinar on Boiler Sunset, June 21, 2023 at 25:00.

¹³ 42 U.S.C. § 6294a(c)(1)-(5) (2022).

¹⁴ EPA Webinar on Boiler Sunset, June 21, 2023 at 7:50.

¹⁵ 5 U.S.C. § 551 et seq.

Commenters note that DOE, a partner in the ENERGY STAR program, ¹⁶ operates under a "Statement of Policy" calling for the use of "Full Fuel Cycles (FFC) measures of energy use and emissions." ¹⁷ ENERGY STAR should be using FFC energy and associated emissions as the basis for analysis of its criteria development and in order to be consistent with EPA's use of source energy (FFC energy less extraction loss). The FFC metric includes the energy consumed in extracting, processing, and transporting primary fuels (i.e. coal, natural gas, petroleum fuels), and thus presents a more complete picture of the impacts of energy conservations standards." ¹⁸ In the June 21 webinar, the EPA specifically stated it would focus on site emissions alone, over the objections of participants on the call. ¹⁹ The EPA claimed it was not possible for them to use a metric for source emissions, though such metrics are readily available, ²⁰ and are often used by the DOE. Commenters request the EPA explore available metrics, and utilize them to comport with source emissions, and not just the flawed attempt to only analyze site emissions.

Further, the EPA's proposal fails to account for or discuss ENERGY STAR's own use of source emissions.²¹ Instead of evaluating or updating its own analysis on source emissions, the EPA jeopardizes the integrity of the ENERGY STAR program²² by failing to provide evidentiary support that includes source emissions, or that electric systems emit fewer emissions. In fact, ENERGY STAR's own source emissions information shows that certain electric systems emit more than double the amount of comparable natural gas systems.²³ The EPA's proposal is directly at odds with foundational documents of the ENERGY STAR program and must be withdrawn.

ENERGY STAR labeling is also helpful to advance the Biden Administration's policy goal of addressing climate change.²⁴ Consumers have a growing desire to reduce greenhouse gas (GHG) emissions. End-use emissions numbers do not account for total emissions of GHGs from a given appliance. Electric appliances and equipment produce nearly no emissions at the site of use, but the mix of U.S. electricity generation that powers them does. Ignoring this important fact in energy labeling can mislead consumers to believe they may be reducing emissions when in actuality they are not. Externalities of energy use should be included in the labels and can be accurately achieved by including such emissions over the FFC.²⁵

The EPA should follow the National Academies of Sciences, Engineering, and Medicine and DOE and use FFC for ENERGY STAR as such a practice measures energy consumption, environmental impacts, and

¹⁶ 42 U.S.C. § 6294a(b) (2022).

¹⁷ 76 Fed. Reg. 51282-89 (Aug. 18, 2011).

¹⁸ See Energy Conservation Program: Energy Conservation Standards for Consumer Conventional Cooking Products: Supplemental Notice of Proposed Rulemaking and Announcement of Public Meeting, 88 Fed. Reg. 6818 (Feb. 1, 2023) at 6833.

¹⁹ EPA Webinar on Boiler Sunset, June 21, 2023 at 1:19:00 and 1:21:00.

²⁰ Welcome - Source Energy and Emissions Analysis Tool (gastechnology.org)

²¹ ENERGY STAR, Source Energy, https://portfoliomanager.energystar.gov/pdf/reference/Source%20Energy.pdf (last visited June 22, 2023).

²² 42 U.S.C. § 6294a(c)(3) (2022).

²³ *Id*. at 2.

²⁴ The White House, Statements and Releases, Fact Sheet: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies (Apr. 22, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/; 86 Fed. Reg. 7619 (Jan. 27, 2021).

²⁵ PERC, *Understanding Carbon Intensity Regional Collection*, https://propane.com/resource-catalog/resources/understanding-carbon-intensity-regional-collection/ (last visited Dec. 19, 2022) (finding that measuring a fuel's carbon intensity helps to capture emissions across the full life cycle of an energy carrier — and reveals the truth that conventional propane is often a cleaner residential energy choice than grid electricity).

greenhouse gas emissions, and provides more comprehensive information to the public through labels. ²⁶ The announcement's failure to take these policies for energy and emissions metrics needs to be addressed. Commenters are confident that, upon doing so, the role of fuel-fired boilers as a means of addressing energy and emissions reductions will play into development of ENERGY STAR product criteria.

Labelling

The ENERGY STAR label on fuel-fired boilers would be a more accurate source of information to all consumers.²⁷ For instance, on average, rural locations or areas where large local distribution systems are lacking, liquid heating fuels, propane, and natural gas are often better choices for consumers who prioritize weatherization, energy efficiency and overall cost considerations.²⁸ It is vital that consumers be provided a label with information that accurately reflects these regional differences. The label currently provides consumers with an enhanced understanding of the efficiency of their fuel-fired boilers relative to the baseline. The notice claims that EPA is supporting electrification by sunsetting the ENERGY STAR fuel-fired boilers specification, but fails to account for consumer preferences and costs, both of which are relevant to the ENERGY STAR label. Electricity costs are not uniform, and not all consumers across the country would want to expend extra funds to get electric boilers and air-to-water heat pumps. As an example, the typical operating costs for certain electric appliances in Washington state are \$28 per year while in Florida they average \$316 per year.²⁹ Despite these differences, all consumers in the current regions see the ENERGY STAR label, and can be confident they are making an informed decision based on efficiency and costs.

Fuel Choice

ENERGY STAR labels also enable fuel choice. Continuing to apply the ENERGY STAR label to fuel-fired boilers would still allow consumers the opportunity to compare across fuel types on a reasonable basis of operating costs while factoring in the true energy cost and emissions of various appliances. The current government practice of rating appliances based on site emissions rather than source emissions inhibits the government's regulations from being fuel neutral, impairing effective consumer awareness regarding fuel choice.

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²⁶ See National Academies of Sciences, Engineering, and Medicine, National Research Council, Letter Report: Review of Site (Point-of-Use) and Full-Fuel-Cycle Measurement Approaches to DOE/EERE Building Appliance Energy-Efficiency Standards (May 15, 2009) ("DOE/EERE should consider moving over time to use of the full-fuel-cycle measure of energy consumption for assessment of national and environmental impacts, especially levels of greenhouse gas emissions, and to providing more comprehensive information to the public through labels and other means including an enhanced website"); see also 76 Fed. Reg. 51281 (Aug. 18, 2011) (DOE plans to use FFC measures of energy use in the national impact analyses and acknowledges the ability to rely on other agency data and current site-specific energy consumption to calculate FFC).

²⁷ See Gas Technology Institute Report, Prepared for American Gas Association, Full-Fuel-Cycle Energy and Emission Factors for Building Energy Consumption at 8 (2013 Update) (noting site-use measurements do not properly or equitably account for the total energy consumed when more than one energy source is used in an appliance and does not account for energy lost and emissions created throughout the extraction, processing, transportation, conversion, and distribution of energy to the building, whereas full-fuel-cycle does).

²⁸ See GTI Energy, Energy Planning Analysis Tool, Residential State Level Comparison, https://cmicepatcalc.gti.energy/ (the tool calculates and compares annual energy cost, source energy consumption, and greenhouse gas emissions, as well as criteria pollutant emissions, associated with site energy consumption by purchased energy form for alternative technologies providing the same energy services) (last visited Dec. 19, 2022).
²⁹ Id.; see Richard Newell and Juha Siikamaki, Can Product Labels Nudge Energy Efficient Behavior? (Sept. 2014), https://www.resources.org/archives/can-product-labels-nudge-energy-efficient-behavior/ (noting consumers struggle to understand the operating cost); see also GTI Energy, Energy Planning Analysis Tool, https://cmicepatcalc.gti.energy/Default.aspx. See supra n.17.

Further, the EPA's rejection of biofuel-fired boilers,³⁰ and its claim that biofuels are to be reserved for industrial use,³¹ again rejects fuel choice and restrains consumer preference. The EPA completely ignores research on boiler efficiency³² in order to serve its bias in factor of electric systems.

Consumer Interest in Energy Efficiency

Studies show that consumers do care about energy efficiency when it comes to boilers. In a 2018 study conducted by the Propane Education & Research Council (PERC), a large majority of residential audiences said it is very or somewhat high priority for their home to be energy efficient, with cost savings and environmental considerations regarded as the most important reasons for wanting to be energy efficient.³³ In addition, a stated willingness to pay more to make a home energy efficient is also high.³⁴ As it pertains to appliances in particular, the study found that nearly all consumer audiences are likely to consider energy-efficient appliances if they need to replace a current appliance or add a new one.³⁵ Moreover, at least half are very likely to do so.³⁶ The EPA webinar noted that more than half of all fuel-fired boilers sold currently have an ENERGY STAR label,³⁷ questioning why the program needs a change if it is already accomplishing its goals with respect to fuel-fired boilers. The available evidence suggests that consumers strongly consider energy efficiency in purchasing decisions, and are likely to continue to do so in the future.

Market research suggests that consumers have a strong desire to select appliances that are more cost-effective, and consumers have expressed an interest in energy equity. Cost-effectiveness is a key driver of consumer choice for household appliances. For many, natural gas appliances, in addition to propane appliances, would help consumers achieve their cost-effectiveness and energy efficiency goals. Consumer preference for a home with natural gas was classified as "important" to nearly 90 percent of people surveyed while nearly 70 percent of consumers say they prefer natural gas home heating, water heating, and cooking. The EPA's proposal would deprive this enormous percentage of American homes of crucial information with respect to their fuel choice. Further, the EPA's proposal fails to account for the costs of upgrading a home's electrical systems to provide for electric boilers and air-to-water heat pump, which is a significant cost and burden for consumers. Notably, a 2019 study found that the cost to just update an electrical panel from 100A to 200A is \$2,890⁴¹ and that does not include the heating equipment and energy costs. As for efficiency pertaining to natural gas appliances, it is three times more efficient for a consumer to use natural gas directly in homes and businesses as opposed to electrification⁴² and natural gas generated

³⁰ EPA Webinar on Boiler Sunset, June 21, 2023 at 19:00.

³¹ *Id.* at 22:00.

³² <u>Biofueling the Future: New Energy Sources Allow More Efficient Heating Technology | BNL Newsroom</u> (last visited June 28, 2023).

³³ The Harris Poll, ZNE Home Survey, Propane Education & Research Council (Dec. 4, 2018).

³⁴ *Id*.

³⁵ *Id*.

³⁶ *Id*.

³⁷ EPA Webinar on Boiler Sunset, June 21, 2023 at 10:00.

³⁸ ACUPOLL, Project #210606, Final Report, Testing Messaging Statements to Determine What is Most Impactful to Consumers (June 2021) (finding the top ranked message among respondents in this Project was "Propane equipment generally lasts much longer than electric appliances, and usually costs 40-60% less to operate, making propane a much more cost-effective solution").

³⁹ Deloitte, *Energy Management: Navigating the Headwinds*, Deloitte Resources 2016 Study, https://www2.deloitte.com/content/dam/Deloitte/us/Documents/energy-resources/us-er-deloitte-resources-2016-study.pdf ("keeping my energy bills affordable" noted as the most important energy issue).

⁴⁰ *Id.* (citing NW Natural, *Increase the Value of Your Home with Natural Gas*).

⁴¹ Based on the average single and multifamily cost of upgrading electrical panels in the 2019 City of Palo Alto Title 24 Energy Reach Code Cost-Effectiveness Analysis.

⁴² *Id.* (citing EPA Energy Star Program, What are the Site-to-Source Conversion Factors?).

electricity averages a source-to-site efficiency of 32 percent.⁴³ Furthermore, policy-driven electrification would increase the average residential household energy-related costs (amortized appliance and electric system upgrade costs and utility bill payments) of affected households by \$750 to \$910 per year compared to mandated residential electrification policy for space and water heating, or about 38 percent to 46 percent.⁴⁴

The overall evidence exemplifies that people take the information in these labels at face value. Consumers do not ignore the information, which is a positive overall; however, they fail to exert additional effort to better understand what the information means "nor are they ... tak[ing] local conditions into account." Therefore, while consumers do have an interest in energy efficiency and costs, the labels are confusing to consumers who rely on the information as presented. Rather than remove the label, the EPA should consider clarifying the ENERGY STAR label to enhance consumer information and awareness, to provide for better purchasing decisions.

ENERGY STAR's Principles

The proposed removal of ENERGY STAR labeling for fuel-fired boilers is inconsistent with EPA's ENERGY STAR Products Program Strategic Vision and Guiding Principles, which recognizes that the specifications were designed "to treat fuel types separately, so that consumers may find the right products for the fuel type in their home, as most make product replacements without switching fuel types." Maintaining the ENERGY STAR program for fuel-fired boilers assures that EPA will be following the EPA's ENERGY STAR Products Program Strategic Vision and Guiding Principles.

Incentives and Rebates

EPA's proposal may also deprive consumers of incentives and rebate benefits. Consumers who detrimentally relied on purchasing fuel-fired boilers subject to an incentive or rebates may have their financial benefits removed, causing them economic harm. Roughly 12,000 products that went through ENERGY STAR certification would lose the benefit of the label, despite following the prescribed procedure for certification. Further, participants in the recent webinar noted that the EPA's proposal provided a mixed message and conflicts with incentives in the Inflation Reduction Act.⁴⁶

Conclusion

The ENERGY STAR program has been working as intended with respect to fuel-fired boilers, and the EPA has failed to articulate credible grounds or a reason to change the current labelling regime. Fundamentally, the proposal is at odds with the purpose and mission of ENERGY STAR, and serves to undermine the foundation on which the program exists. Commenters also reiterate their request presented at EPA's June 21 webinar on ENERGY STAR and Residential Boilers to extend the comment period.⁴⁷ Thank you for your attention to our concerns, and please contact us with any questions.

⁴³ *Id*.

⁴⁴ American Gas Association, Implications of Policy-Driven Residential Electrification (July 2018) available at https://www.aga.org/wp-content/uploads/2018/07/aga study on residential electrification.pdf. The total cost increase, which includes electric generation and transmission, ranges from \$1,060 to \$1,420 annually. These costs do not include electric distribution costs or impacts to consumers that remain on the natural gas system.

⁴⁵ Lucas Davis and Gilbert Metcalf, *Does Better Information Lead to Better Choices? Evidence from Energy-Efficiency Labels*, University of Chicago E2E Working Paper 015 at 2 (Nov. 2015).

⁴⁶ EPA Webinar on Boiler Sunset, June 21, 2023 at 27:00; Pub. L. 117-169, 136 Stat. 1818 (2022).

⁴⁷ *Id.* at 37:00.

Respectfully Submitted,

Matthew J. Agen

Chief Regulatory Counsel, Energy

American Gas Association 400 N. Capitol Street, NW

Washington, DC 20001

magen@aga.org

Stuart Saulters

Vice President of Government Relations American Public Gas Association

201 Massachusetts Avenue NE, Suite C-4

Washington, DC 20002

ssaulters@npga.org

Mark S. Morgan, Esg.

Mark S. Morgan Regulatory Counsel

Energy Marketers of America

300 New Jersey Avenue, N.W. Suite 900

Washington, D.C. 20001

mmorgan@emamerica.net

James M. Collura

Vice President

National Energy & Fuels Institute (NEFI)

1629 K St NW, Suite 300

Washington, DC 20006

jim.collura@nefi.com

Benjamin Nussdorf

Vice President, Regulatory & Industry Affairs National Propane Gas Association

1140 Connecticut Ave., NW

Suite 1075

Washington, DC 20036

bnussdorf@npga.org

Don Farrell

Executive Director

Oilheat Manufacturers Association

140 Littleton Road. Suite 320

Parsippany, NJ 07866

dfarrell@oma-web.org

/s/ Charles R. White

Charles R. White

Vice President of Regulatory Affairs

PHCC-National Association

white@nphcc.org