













June 22, 2023

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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 Version 4.1 Specification for Furnaces and Removing Central Air Conditioners (CACs) from the ENERGY STAR V6.1 Specification for CAC and Heat Pump Equipment

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 Residential Furnaces and Central Air Conditioners (CACs) Sunset Proposal by the Environmental Protection Agency (EPA or Agency). The EPA published the proposal to seek input on phasing out the labelling and promotion of residential liquid-, gas-, and biofuel-fired (fuel-fired) furnaces and central air conditioners.

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,

¹ See Email from ENERGY STAR; ENERGY STAR Residential Furnaces and Central Air Conditioners Sunset Proposal; May 18, 2023. Note: Also included in this announcement was an announcement that the agency plans to sunset boiler and dryer certifications and specifications as well, with dates forthcoming. Commenters find this proposal equally concerning. Further comments will be submitted in response to the separate announcement made on June 5, 2023, regarding the termination of boiler specifications.

 $^{^2}$ Id.

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 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 furnaces and central air conditioners. 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 Northeast, Mid-Atlantic and Midwest regions. 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.

³ For more information, please visit www.aga.org.

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.

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

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 published this notice on May 18, 2023, with an effective date of December 31, 2023, the EPA has provided only 227 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 furnaces and CACs, without offering evidence.

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 states that "leading up to this sunset proposal, EPA has heard from a range of stakeholders emphasizing the opportunity the Agency has to focus the ENERGY STAR label on efficient electric products like air source heat pumps in order to highlight products that reduce energy consumption, improve energy security, and reduce pollution." The EPA has failed to show examples of the feedback it has received, or the volume received. It has failed to provide analysis or studies on the purported reduction in energy consumption, improvement in energy security, or reduction in pollution. 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. 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 EPA's proposal to sunset ENERGY STAR labels for furnaces and CACs 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, 11 so the Agency can provide a basis for its decision and solicit public feedback and evaluation of its proposal.

Emissions

^{6 42} U.S.C. § 6294a.

⁷ *Id.* at § 6294a(c)(6).

⁸ *Id.* at § 6294a(c)(7).

⁹ About ENERGY STAR | ENERGY STAR (last visited June 2, 2023).

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

¹¹ 5 U.S.C. § 551 *et seq*.

The EPA states that "electric appliances are not responsible for any direct emissions and garner significant emissions reductions even when source or upstream emissions from electricity generation are factored in." Commenters note that DOE, a partner in the ENERGY STAR program, operates under a "Statement of Policy" calling for the use of "Full Fuel Cycles (FFC) measures of energy use and emissions." 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." The EPA has not committed to using or evaluating an FFC analysis of its emissions claims, which may make its claims at odds with conclusions reached by its partner, the DOE. Commenters requests the EPA clarify this claim, as it is unsupported by the document, and fails to account for the FFC analysis employed by its ENERGY STAR partner, the DOE.

Further, the EPA's proposal fails to account for or discuss ENERGY STAR's own use of source emissions.¹⁵ Instead of evaluating or updating its own analysis on source emissions, the EPA jeopardizes the integrity of the ENERGY STAR program¹⁶ 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.¹⁷ 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. ¹⁸ 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. ¹⁹

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

¹² 42 U.S.C. § 6294a(b) (2022).

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

¹⁴ *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.

¹⁵ ENERGY STAR, Source Energy, https://portfoliomanager.energystar.gov/pdf/reference/Source%20Energy.pdf (last visited June 22, 2023).

¹⁶ 42 U.S.C. § 6294a(c)(3) (2022).

¹⁷ *Id*. at 2.

¹⁸ 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).

¹⁹ 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.²⁰ 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 residential fuel-fired furnaces as a means of addressing energy and emissions reductions will play into development of ENERGY STAR product criteria.

Labelling

The ENERGY STAR label on furnaces and CACs would be a more accurate source of information to all consumers. 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. 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 furnaces and CACs relative to the baseline. The notice claims that heat pumps are more efficient, 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 furnaces and CACs. As an example, the typical operating costs for room air conditioners in Washington state are \$28 per year while in Florida they average \$316 per year. 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 furnaces and CACs 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.

²⁰ 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).

²¹ 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).

²² 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).

23 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.

Consumer Interest in Energy Efficiency

Studies show that consumers do care about energy efficiency when it comes to furnaces and CACs. 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.²⁴ In addition, a stated willingness to pay more to make a home energy efficient is also high.²⁵ 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.²⁶ Moreover, at least half are very likely to do so.²⁷ 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.²⁸ Cost-effectiveness is a key driver of consumer choice for household appliances.²⁹ For many, natural gas appliances, in addition to propage

of consumer choice for household appliances.²⁹ 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 surveyed³⁰ while nearly 70 percent of consumers say they prefer natural gas home heating, water heating, and cooking,³¹ According to the 2021 American Community Survey, approximately 70 million homes use oil, natural gas, or propane as their primary heating fuel, representing over 56% of all homes.³² 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 furnaces and CACs, 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 \$2,890³³ 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 electrification³⁴ and natural gas generated electricity averages a source-to-site efficiency of 32 percent.³⁵ 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 an electric furnace, or about 38 percent to 46 percent.³⁶

²⁴ The Harris Poll, *ZNE Home Survey*, Propane Education & Research Council (Dec. 4, 2018).

²⁵ *Id*.

²⁶ *Id*.

²⁷ *Id*.

²⁸ 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").

²⁹ 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).

³⁰ Id. (citing NW Natural, Increase the Value of Your Home with Natural Gas).

³¹ *Id.* (citing Energy Solutions Center 2016).

³² Selected Housing Characteristics. 2021 American Community Survey, United States Census Bureau, <u>DP04 - Census Bureau Tables</u>, Jan. 26, 2023 (last visited June 13, 2023).

³³ 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.

³⁴ *Id.* (citing EPA Energy Star Program, What are the Site-to-Source Conversion Factors?).

³⁶ 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 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."³⁷ 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.

EPA Sunset of ENERGY STAR Certification of Fuel-Fired Residential Furnaces Prevents Consumers from Reducing Energy Consumption Emissions and Saving Money

The EPA proposal that is designed to promote only electric heat pumps (EHPs) for residential space heating will have the unintended consequence of limiting consumers from reducing their annual energy consumption and the resulting emissions reductions that go along with that result. EHPs are a popular option for space heating and have substantial advantages over electric resistance type heating furnaces. The use of the refrigerant system by EHPs offers the ability of the EHP to provide heating in the winter season and cooling in the summer. However, for the operation of the heat pump in the heating season, the EHP needs to have a backup system to operate when the EHP alone is unable to provide adequate heat to meet the design heating requirements for the home. This is referred to as auxiliary or supplemental heating that provides the additional heat to meet the requirements for comfort in the home. Additionally, EHPs are designed to provide some form of emergency heat when the EHP is unable to function due to a failure of the EHPs compressor or for other reasons. Both the auxiliary and emergency heating functions for EHPs are mostly provided with an air handler that uses electric resistance elements to operate when auxiliary or supplemental heating or emergency heating is required. Essentially, during these operations, the EHP is operating with an electric furnace as its backup system. However, the airflow handling unit for the EHPs does not have to be served by a unit that utilizes electric resistance type heating. Specifically, fuel-fired furnaces can and are being used to provide the air handling function as well as the auxiliary or supplemental heating function or emergency heating function of the EHP. This type of application is referred to as a "hybrid" or "piggyback" application that adapts an EHP with a fuel-fired furnace to provide the required airflow system. Under this application, consumers have access to both the benefits of EHPs and the energy and cost savings as well as the emissions reductions that are offered by fuel-fired furnaces when the emission and energy use reduction is determined by using full fuel cycle metrics. The annual energy cost to consumers will always be less than the cost of energy supplied by electric resistance means. Maintaining the ENERGY STAR certification rating for fuel-fired furnaces provides the consumer with incentives for federal tax credits as well as incentives provided by energy providers of energy efficiency programs. These programs encourage the upgrading of fuel-fired furnaces to an ENERGY STAR certified model that will result in an improved heating system that benefits from both the efficiency aspects of an EHP and the upgraded ENERGY STAR fuel-fired furnaces.

ENERGY STAR's Principles

The proposed removal of ENERGY STAR labeling for fuel-fired furnaces and CACs 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."

³⁷ 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).

Maintaining the ENERGY STAR program for fuel-fired consumer furnaces 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 systems 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.

Conclusion

The ENERGY STAR program has been working as intended with respect to furnaces and CACs, 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 in their letter from June 9, 2023 to extend the comment period and for a public meeting. Thank you for your attention to our concerns, and please contact us with any questions.

Respectfully Submitted,

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