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June 22, 2023

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

Dear Director Bailey:

This is in response to the notice issued by the EPA regarding the "sunsetting" of non-heat pump type warm air heating appliances from ENERGY STAR®. The Oilheat Manufacturers Association (OMA) represents manufacturers and distributors of liquid fuel and biofuel powered heating and hot water systems. OMA disagrees with the decision announced by ENERGY STAR® to desist in partnering with furnace companies to provide ENERGY STAR® labels. In support, OMA respectfully submits the following.

ENERGY STAR® Purpose

As stated on the ENERGY STAR® web site:

The blue ENERGY STAR label provides simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions.[1]

This mission has clearly been successful as ENERGY STAR® has helped America by saving more than 5 trillion kilowatt-hours of electricity, avoided more than $500 billion in energy costs and reduced greenhouse gases by 4 billion metric tons[2].

The May 18 proposal conflicts with this mission by attempting to eliminate close to 5,000 natural gas, propane, liquid fuel, and biofuel powered furnace models that are used in more than 35 million homes. Doing this effectively blinds homeowners to the *"simple, credible, and unbiased information"* needed to make impactful decisions on furnace choice.

As heating appliances are the highest-use energy product in the home, causing millions of Americans to make the decision to install the less than optimal furnace has a magnified negative effect on reduced energy use. According to the Energy Information Administration, a single family

[1] About ENERGY STAR https://energystar.gov/about
[2] Real World Impacts https://energystar.gov/about

detached home uses 46% of its energy for space heating, 8% for air-conditioning, 17% for water heating, and the remaining 29% for all other uses.[3] It is clear, that the single most important question regarding energy consumption in a home is "How is it heated?"

Making the BEST choice

Typically, most consumers make the decision on how to heat their home when the existing appliance has either failed, is too expensive to operate, or does not provide for the needs of the house. Critical factors in this decision are the cost of the appliance, the cost of installation, the expected energy use of the appliance, and the cost of the respective fuels that may be used. Given that many of these decisions are made under duress because the furnace failed during the heating season and the need for a new furnace is immediate, the time to decide is compressed. It is particularly useful for both the customer and the appliance contractor to have an unbiased source of information regarding efficiency in such a time-compressed atmosphere. OMA believes that ENERGY STAR® provides immense value in these instances.

Further, the ability to change to a competing fuel source or a radically different appliance may not be feasible. In some cases, changing to a different fuel type, e.g., changing from a furnace to a heat pump may be impossible. For example, a dwelling, often a multi-family dwelling, may not have space to install an outdoor compressor. Additionally, as noted above, such a change may require changes to the dwelling that may not be feasible in the short term. Where will the compressor be located? how will it be provided with electricity? will the electrical panel need an upgrade? or will the installation of new piping to the air handler be required? All of these may result in considerable additional costs to the homeowner and unacceptable delays, which may lead the consumer to do a simple like-for-like replacement of the existing unit.

Consumers who can make choices between fuels and appliances and systems consider the operating efficiencies, the price of the fuel, environmental benefits of the fuel; the capital cost of installation and expected useful life of the appliance; and aesthetic concerns such as noise, comfort, and impact on home interior. In many cases, the actual operating costs of a heat pump may not be acceptable in all locations. The cost of electricity varies widely from a low of approximately $0.09 kwh in North Dakota to a high of approximately $0.24 kwh in Suffolk County, NY (Hawaii at $0.44 kwh) making the fuel choice an economic choice as much as an efficiency choice. Where the electric costs are high and weather is cold, consumers may recognize that the heat pump savings in energy use are offset by the different fuel costs and capital costs of installation. This will have an increased effect on low-income consumers, who may not have the resources to change fuels.

OMA believes that a better understanding of how consumers make choices in appliance selection is essential and critical. The failure to do this full evaluation is likely to mean that ENERGY STAR® is no longer providing information in the most critical energy decision the household makes. OMA believes it is important that the furnace choice reflects the highest efficiency available, which should be facilitated by ENERGY STAR® guidance.

The areas with typically high electric costs mostly overlay the liquid heating fuel market footprint making continued furnace inclusion particularly valuable. Additionally, in many of these cold

[3] https://www.eia.gov/energyexplained/use-of-energy/homes.php#:~:text=Water%20heating%2C%20lighting%2C%20and%20refrigeration,year%2Dround%20home%20energy%20uses

weather and high electric cost areas, many homeowners do not use air-conditioning. By encouraging a switch to heat pumps, ENERGY STAR® may also be creating an additional demand for energy in a home.

ENERGY STAR® specifications treat different 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. [4]

As an unbiased resource, ENERGY STAR® guides the well-informed decision-making process towards higher efficiencies. This offers measurable benefits to the consumer via lower operating costs and to the environment through reduced fuel consumption.

Real-world considerations

It is recognized by ENERGY STAR® and the EPA that heating solely with heat pumps in very cold climates may not be adequate to keep homeowners warm.

At the same time, EPA recognizes that households in the coldest climates may not be comfortable relying solely on a heat pump and may therefore retain their existing furnace in the near term. EPA intends to serve as a trusted source for consumers by providing guidance about how to use such a dual fuel system to save energy and minimize greenhouse gas emissions while staying comfortable. [5]

Essentially, in this statement, ENERGY STAR® acknowledges that in cold weather areas, furnaces or other backup heating may be essential to the health and safety of the homeowner. This proposal to eliminate furnaces leaves the homeowner without information. Additionally, having to have multiple units will severely increase the overall capital cost of heating and likely discourage installation of a second heating source. Whether continuing to incorporate a furnace in the heating system in these cases, or with the possible introduction of a liquid fuel furnace/heat pump hybrid, the continued availability of information on the best efficiencies remains crucial to ensuring the best choice is made by consumers. Partnering liquid fuel/biofuel powered appliances with heat pumps addresses this way in a that is currently available and scalable, and not readily available with other cold climate applications.

Decarbonizing benefits

As recognized by ENERGY STAR®, the need to decarbonize American homes is critical. Residential energy use is more than 20% of all energy use. As a result, residential space heating accounts for approximately 10% of all consumption of energy in the United States[6].

Our industry recognizes the critical role that we play in greenhouse gas emissions and has focused on improving emissions of appliances and developing alternative liquids with a lower carbon intensity that can be implemented seamlessly into our distribution system. Liquid fuel and biofuel

[4] *ENERGY STAR Products Program Strategic Vision and Guiding Principles*
[5] *Energy Star Sunset Furnaces and Central Air Conditioners notice of May 18, 2023*

[6] https://www.eia.gov/consumption/

powered furnaces (currently categorized by ENERGY STAR® as "Fuel Type-Oil") have the current capacity to immediately reduce greenhouse gas emissions using either blends of biodiesel or 100% biodiesel as the fuel choice. Biodiesel is an *Advanced Biofuel* as defined by the Department of Energy and as such its use reduces atmospheric carbon emissions. For each gallon of biofuels used, carbon intensity falls by 60-80%.

Reducing carbon with biodiesel powered furnaces has multiple advantages. There are no major changes to the system needed. Introducing biodiesel into an existing furnace yields an immediate carbon reduction. As the blend ratio increases, the reductions increase also. This immediate benefit is a high value proposition while the "greening" of the electric grid progresses. As carbon reduction is crucial to the country's continued wellbeing and is the policy of the Administration, liquid fuel appliance's ability to immediately accomplish this should be an important factor when considering their continued inclusion in ENERGY STAR®.

OMA believes that a conversion to biodiesel/bioheat provides the most efficient and rapid way to lower the carbon intensity of the residence. First, it can be done immediately and does not rely on the natural life cycle of appliances which may be 15-25 years. Second, the capital costs to the homeowner are likely to be negligible. Third, a rapid conversion of 100% of the homes will reduce carbon emissions much more quickly than the occasional home that switches to electricity—presuming that the electricity for that home comes from a renewable resource, which is unlikely in most areas of the country.

Such a conversion to low carbon fuels is now occurring. The appliance manufacturers have been working to ensure such a conversion is smooth. The National Oilheat Research Alliance (NORA) has been conducting research on biofuels for decades, both to develop new fuels and ensure the fuels flowing into the market work successfully. Similarly, burner and appliance manufacturers have invested time and research dollars to develop appliances that can burn 100% biodiesel without incident. OMA is extremely disappointed that ENERGY STAR® instead of rewarding these efforts, chooses to ignore these efforts and accomplishments.

In closing, the liquid heating fuels industry has made a significant commitment to carbon reduction. This is demonstrated by:

- **Public statement of commitment:** In September 2019 at a meeting or the National Energy & Fuels Institute, liquid fuel retail companies, state associations and equipment manufacturers voted unanimously to take the upgraded step to voluntary reduce greenhouse emissions culminating in net zero fuel in 2050.
- **Legislative action**: The liquid fuel industry has aggressively pursued state legislators to mandate the use of biodiesel blends in home heating. Massachusetts, New York, Connecticut and Rhode Island in conjunction with the liquid fuel heating industry have developed schedules and mandates for the implementation of biofuels. Again, ENERGY STAR® ignores these efforts to improve the carbon intensity in states with significant cold weather and high use of liquid fuels. Undermining volunteer efforts to improve the carbon intensity of fuel seems contrary to the spirit of ENERGY STAR®, which is based on voluntary actions.
- **Heating appliance compatibility**: Liquid fuel heating appliance manufacturers have been on the path to incorporate the use of biodiesel in their product for many years. Through

engineering and testing, most liquid fueled appliances and 20% biodiesel compatible and 100% biodiesel products have just been approved for the market.

- **Currently in action**: The inclusion of carbon reducing biodiesel liquid heating fuel is not aspirational as millions of homes are currently using some blend of biodiesel in their home heating.
- **Financial Commitment**: Millions of dollars have been spent by industry stakeholders to demonstrate the efficacy of biodiesel powered appliances and to encourage their industry-wide adoption.

Incentives & Rebates

The EPA's proposal also ignores Congress's desire to tie ENERGY STAR® and use of biofuels to tax credits. Additionally, organizations such as NORA provide rebates for installation of high efficiency equipment. Detaching ENERGY STAR® from liquid fueled appliances will eliminate a tool for states and industry to use to improve efficiency.

Given the reasons stated above, OMA requests that the ENERGY STAR® program defer making any significant changes in what appliances are included or excluded. Since its inception in 1992, ENERGY STAR® has been a guiding light for consumers who wish to purchase the most energy efficient product in 58 product categories. These categories include low-energy use products such as light bulbs and coffee makers and high-energy use products such as home heating appliances. ENERGY STAR® should continue to steer consumers in the direction of lowering energy consumption by guiding them to make the best choice. The efficiency gains when using the most efficient heating furnaces has much greater impact than that of a coffee maker. Removing furnaces is ill considered.

Respectfully Submitted,

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