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**Re: ENERGY STAR Version 5.0 Furnaces Draft 1 Specification**

Dear ENERGY STAR:

The National Propane Gas Association (NPGA), American Gas Association (AGA), American Public Gas Association (APGA), and Plumbing-Heating-Cooling Contractors—National Association (PHCC) (collectively, Commenters) respectfully submit these joint comments in response to the ENERGY STAR Version 5.0 Draft 1 Specification.<sup>1</sup> The EPA published the proposal to update, rather than sunset the ENERGY STAR furnace specification.<sup>2</sup>

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 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.

AGA, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 78 million residential, commercial and industrial natural gas customers in the U.S., of which 95 percent — more than 74 million customers — receive their gas from

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<sup>1</sup> See Email from ENERGY STAR; ENERGY STAR Version 5.0 Draft 1 Specification, April 16, 2024.

<sup>2</sup> *Id.*

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.<sup>3</sup> Currently, 52% of U.S. households use natural gas for space heating in their homes.<sup>4</sup>

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.<sup>5</sup>

Established in 1883, PHCC is the oldest national trade association representing approximately 3,200 plumbing and HVAC open shop and union contractor members collectively employing 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).<sup>6</sup>

### **Proposal Summary**

Through the proposal, the EPA seeks an increase in efficiency for the gas furnaces to 97 Annual Fuel Use Equivalent (AFUE), under which the EPA claims nearly 500 furnace models, representing all common sizes and all major manufacturers will already be compliant. EPA further seeks to eliminate the regional distinction for ENERGY STAR furnaces, to align with current minimum efficiency standards and simplify program administration and participation. The EPA states that sales data reported to the EPA indicates that consumers are generally not taking advantage of the U.S. South performance level. Finally, the EPA seeks an increase in efficiency for the oil furnace requirement to 87 AFUE, under which it claims that 13% of current oil furnaces will already be compliant.<sup>7</sup>

### **Feedback**

The EPA states that “leading up to this 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.”<sup>8</sup> 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.<sup>9</sup> In fact, by only promoting

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<sup>3</sup> For more information, please visit [www.aga.org](http://www.aga.org).

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

<sup>5</sup> For more information, please visit [www.apga.org](http://www.apga.org).

<sup>6</sup> 42 U.S.C. § 6294a.

<sup>7</sup> Email from ENERGY STAR; ENERGY STAR Version 5.0 Draft 1 Specification, April 16, 2024.

<sup>8</sup> *Id.*

<sup>9</sup> 42 U.S.C. § 6294a(c)(1)-(5) (2022).

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. Commenters suggest that the EPA submit the proposal to the normal course of notice and comment rulemaking, pursuant to the Administrative Procedures Act,<sup>10</sup> so the EPA can provide a basis for its decision and solicit public feedback and evaluation of its proposal.

## **Emissions**

Commenters note that DOE, a partner in the ENERGY STAR program,<sup>11</sup> operates under a “Statement of Policy” calling for the use of “Full Fuel Cycles (FFC) measures of energy use and emissions.”<sup>12</sup> 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 conservation standards.<sup>13</sup> 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 request 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.<sup>14</sup> Instead of evaluating or updating its own analysis on source emissions, the EPA jeopardizes the integrity of the ENERGY STAR program<sup>15</sup> 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.<sup>16</sup>

ENERGY STAR labeling is also helpful to advance the Biden Administration’s policy goal of addressing climate change.<sup>17</sup> 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.<sup>18</sup>

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<sup>10</sup> 5 U.S.C. § 551 *et seq.*

<sup>11</sup> 42 U.S.C. § 6294a(b) (2022).

<sup>12</sup> 76 Fed. Reg. 51282-89 (Aug. 18, 2011).

<sup>13</sup> 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.

<sup>14</sup> ENERGY STAR, *Source Energy*, <https://portfoliomanager.energystar.gov/pdf/reference/Source%20Energy.pdf> (last visited June 22, 2023).

<sup>15</sup> 42 U.S.C. § 6294a(c)(3) (2022).

<sup>16</sup> *Id.* at 2.

<sup>17</sup> 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).

<sup>18</sup> PERC, *Understanding Carbon Intensity Regional Collection*, <https://propane.com/resource-catalog/resources/understanding-carbon-intensity-regional-collection/> (last visited Dec. 19, 2022) (finding that

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 greenhouse gas emissions, and provides more comprehensive information to the public through labels.<sup>19</sup> 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.

### **Consumer Interest in Energy Efficiency**

Studies show that consumers do care about energy efficiency when it comes to furnaces. 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.<sup>20</sup> In addition, a stated willingness to pay more to make a home energy efficient is also high.<sup>21</sup> 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.<sup>22</sup> Moreover, at least half are very likely to do so.<sup>23</sup> 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.<sup>24</sup> Cost-effectiveness is a key driver of consumer choice for household appliances.<sup>25</sup> 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<sup>26</sup> while nearly 70 percent of consumers say they prefer natural gas home heating, water heating, and cooking.<sup>27</sup> According to the 2021 American Community Survey, approximately 70 million homes use

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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).

<sup>19</sup> 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).

<sup>20</sup> The Harris Poll, *ZNE Home Survey*, Propane Education & Research Council (Dec. 4, 2018).

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

<sup>24</sup> 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").

<sup>25</sup> 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).

<sup>26</sup> *Id.* (citing NW Natural, *Increase the Value of Your Home with Natural Gas*).

<sup>27</sup> *Id.* (citing Energy Solutions Center 2016).

oil, natural gas, or propane as their primary heating fuel, representing over 56% of all homes.<sup>28</sup> 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, 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 \$2,890<sup>29</sup> 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 electrification<sup>30</sup> and natural gas generated electricity averages a source-to-site efficiency of 32 percent.<sup>31</sup> 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.<sup>32</sup>

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.”<sup>33</sup> 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. The EPA should consider clarifying the ENERGY STAR label to enhance consumer information and awareness, to provide for better purchasing decisions.

### **Reliance on Final Rulemaking for Consumer Furnaces**

In its Notice, the EPA states, “With the Department of Energy’s recent finalization of the gas furnace federal minimum efficiency standards at the current ENERGY STAR efficiency level of 95 AFUE and an ENERGY STAR market share of about 40%, the Agency sees an opportunity for further differentiation as the market advances to meet the new minimum requirements effective in December 2028.”<sup>34</sup> The EPA’s reliance is premature and flawed. First, the Department of Energy’s Final Rule on consumer furnaces is currently under challenge at the U.S. Court of Appeals for the District of Columbia. Instituting changes to ENERGY STAR based on a contested rule well in advance of its effective date (2028) could lead to consumer confusion and frustration, especially if petitioners are successful in their challenge.<sup>35</sup> Consequently, the EPA should suspend their changes pending the outcome of the lawsuit, as the outcome of the suit would have a critical and substantial effect on available products.

Further, the EPA states that it is targeting an effective date for Furnace Specifications 5.0 in 2026.<sup>36</sup> However, this is potentially two years prior to the effective date for the Consumer Furnace Rule, creating an artificial, expedited effective date for manufacturers who seek to comply with both ENERGY STAR

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<sup>28</sup> Selected Housing Characteristics. 2021 American Community Survey, United States Census Bureau, [DP04 - Census Bureau Tables](#), Jan. 26, 2023 (last visited June 13, 2023).

<sup>29</sup> 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.

<sup>30</sup> *Id.* (citing EPA Energy Star Program, *What are the Site-to-Source Conversion Factors?*).

<sup>31</sup> *Id.*

<sup>32</sup> 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](https://www.aga.org/wp-content/uploads/2018/07/aga_study_on_residential_electrification.pdf).

<sup>33</sup> 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).

<sup>34</sup> Email from ENERGY STAR; ENERGY STAR Version 5.0 Draft 1 Specification, April 16, 2024.

<sup>35</sup> Commenters National Propane Gas Association, American Gas Association and American Public Gas Association are among the challengers of the Consumer Furnace Rule.

<sup>36</sup> Email from ENERGY STAR; ENERGY STAR Version 5.0 Draft 1 Specification, April 16, 2024.

and the Consumer Furnace Rule (should the Consumer Furnace Rule survive its legal challenge). By effectively cutting the effective date for compliant manufacturers by two years, the EPA is undercutting manufacturer concerns in the DOE Consumer Furnace rule by placing an unreasonable and unacceptable burden on manufacturers.

Further, the EPA's proposed standard of 97 AFUE is not aligned with the DOE's Consumer Furnace Rule. By seeking a higher standard than the rule, the EPA is seeking to push the efficiency of the consumer furnace market beyond the bounds analyzed by DOE. DOE's analysis specifically focused on market capacity to meet the final AFUE standard, analysis completely ignored by the EPA. Through their avoidance, the EPA is seeking to finalize an unachievable, unworkable, and product-eliminating ENERGY STAR standard of efficiency for consumer furnaces.

Commenters suggest that any changes suggested by the EPA have an effective date at the same time as the Consumer Furnace Final Rule and be contingent upon that rule's survival of legal challenge. Such an action would reduce consumer confusion and manufacturer burden, as it would allow effective compliance with the EPA and DOE simultaneously.

### **Regional Sales Data and Differentiation**

The EPA states that sales data reported to the EPA indicates that consumers are generally not taking advantage of the U.S. South performance level.<sup>37</sup> The EPA does not provide a source for their data, or the underlying data itself. Consequently, it is challenging to evaluate the quality or the veracity of the EPA's claim. Commenters endorse and support analysis provided by the American Gas Association in their individual comments.<sup>38</sup>

### **Incentives and Rebates**

EPA's proposal may also confuse consumers with respect to incentives and rebate benefits. While the proposal attempts to align rebates and incentives under the Inflation Reduction Act (IRA) for gas furnaces,<sup>39</sup> it would set a standard for oil furnaces in excess of the AFUE required for federal tax credits. Oil furnace consumers may not fully understand that they may be eligible for credits. As consumers evaluate their choices, whether electric, gas, natural gas, propane, or oil, EPA should not create unnecessary confusion that could undermine the effectiveness of the ENERGY STAR label and its applicability or non-applicability to the eligibility requirements under the IRA., even if their furnace does not meet ENERGY STAR specifications. Consumers may not fully understand that they may be eligible for credits, even if their furnace does not meet ENERGY STAR specifications.

Furthermore, EPA is warping the congressional intent from the IRA by limiting consumers to only a particular furnace with a specific rebate program significantly ahead of when new minimum efficiency standards potentially would go into effect. Since 97 AFUE is currently the highest level of gas furnaces available on the market, this proposal would also significantly limit the opportunity for consumers to take advantage of a rebate that Congress intended to be fuel-neutral.

### **Conclusion**

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<sup>37</sup> Email from ENERGY STAR; ENERGY STAR Version 5.0 Draft 1 Specification, April 16, 2024.

<sup>38</sup> AGA Comments at 3-9.

<sup>39</sup> See AGA Comments at 8-9 for a discussion of the Inflation Reduction Act incentives related to natural gas products.

The ENERGY STAR program has been working as intended with respect to furnaces, and the EPA has failed to articulate credible grounds or a reason to change the current AFUE. 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. Thank you for your attention to our concerns, and please contact us with any questions.

Respectfully Submitted,



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