AMERICAN PUBLIC GAS ASSOCIATION

April 30, 2014

Abigail Daken, Product Manager
ENERGY STAR HVAC Program
US Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Draft 1 Version 3.0 ENERGY STAR® Water Heater specification

Dear Ms. Daken,

The American Public Gas Association (APGA) is pleased to submit comments in response to the US Environmental Protection Agency's (EPA) proposal to revise ENERGY STAR® Water Heater specifications.

APGA is the national association for publicly-owned natural gas distribution systems. There are approximately 1,000 public gas systems in 37 states and over 700 of these systems are APGA members. Publicly-owned gas systems are not-for-profit, retail distribution entities owned by, and accountable to, the citizens they serve. They include municipal gas distribution systems, public utility districts, county districts, and other public agencies that have natural gas distribution facilities.

The recently proposed revisions to the ENERGY STAR® criteria for residential water heaters will introduce product classes for the first time in the water heater market. The market will now be differentiated based on size of less than or equal to 55 gallons and greater than 55 gallons. APGA would like to applaud EPA for recognizing the need for distinct product classes under the ENERGY STAR® program based on technology and size.

APGA agrees there is no need to artificially manipulate the market for gas storage and electric storage water heaters less than or equal to 55 gallons.

However, APGA has serious concerns over the EPA proposal to raise the ENERGY STAR® levels for gas storage greater than 55 gallons and for gas instantaneous water heaters.

The ENERGY STAR® certification program is designed so appliances meet strict performance criteria that are technology and fuel neutral, providing a level playing field for current and future technologies while ensuring a positive consumer experience. However the current proposal is

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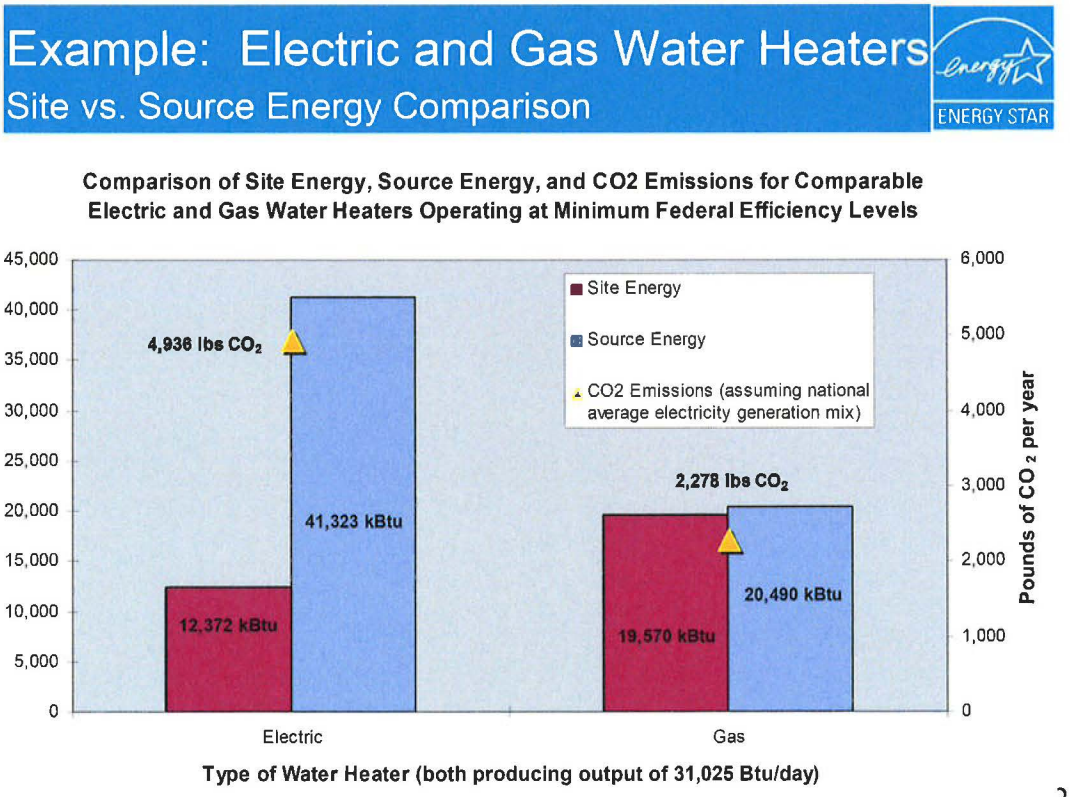
ignoring this guiding principle. The notes associated with the proposal clearly illustrate this fact by noting for the electric storage water heaters market:

> *"Most of the units currently available in the market would meet the proposed requirement. However, with the federal standards raising the baseline efficiency level to nearly 2.0 EF, EPA anticipates an increase in the number of units offered at 2.0 EF or higher thus creating product differentiation in the market and also leading to reduction in the price premium of energy efficient products."*

Whereas the notes supporting the proposed increase to the over 55 gallon natural gas water heater market demonstrate there are no products that would meet the new standard:

> *"Currently there are no gas water heaters greater than 55 gallon available in the market that would meet the proposed requirement. However, EPA anticipates that as manufacturers prepare products for the market that meet the forthcoming federal standard, market availability for products that meet the proposed level will grow. An ENERGY STAR level of 0.80 EF will provide sufficient product differentiation between the standard and efficient products."*

The current proposal would eliminate any current over 55 gallons natural gas water heaters from the ENERGY STAR® program and tilt the market 100% towards the electric water heater appliances. By proposing these standards, the ENERGY STAR® certification program is clearly ignoring one of its primary criteria. Furthermore, this change is completely counter to the program objectives. More electric water heaters would equal more energy consumption and more pollution. Below is an example that further illustrates this point. This information was taken from an EPA Presentation to National Academy of Sciences in February 2008.



The current site-based measurement methods only calculate the energy consumed at the end-use point and hence do not properly account for the total energy consumed. A source or full-fuel-cycle (FFC) analysis examines all impacts associated with energy use, including those from extraction/production, conversion/generation, transmission, distribution, and ultimate energy consumption. The current practice of using site (or point-of-use) measurement fails to account for the impacts between the processes of energy extraction through delivery to the point of final consumption, when comparing energy use intensity of optional fuels.

APGA understands that, under EPCA, DOE is authorized to set energy conservation standards for covered products based on point-of-use. However, there is nothing preventing the EPA under the ENERGY STAR® Program from adopting a superior, more comprehensive methodology which considers FFC. DOE itself has recognized the shortcoming of site-based analysis and the need "to use FFC measures of energy use and GHG and other emissions in the national impact analyses and environmental assessments included in future energy conservation standards rulemakings." [1] DOE has also recognized the importance of making "readily available to consumers and other users of regulated products information on the FFC energy use and emissions associated with specific products, whether or not these other products use the same type of energy." [2] The use of FFC analysis is endorsed by the National Academy of Sciences in a 2009 report.[3] In addition to both the DOE and the Academies recognizing the use of FFC, the ENERGY STAR® Portfolio Manger program is already utilizing and promoting the use source based energy analysis. APGA strongly encourages the EPA to begin to utilize the FFC analysis when establishing standards for ENERGY STAR® certified appliances.

An additional advantage to providing source based energy efficiency data under the Energy Star® Program is that it will help customers to make intelligent purchasing decisions based on an appliance's true potential energy savings and emissions impact.

The final concern APGA has with the proposed standard is the failure to not only recognize the potential environmental harm but also the potential to steer consumers unknowingly towards costlier-to-operate electric appliances. The current proposal fails to recognize the average natural gas water heater is nearly 50% cheaper to operate on a yearly basis when compared to a similar electric water heater.

The Energy Star® Program must continue to recognize the benefits of energy efficient products on the environment. The average electric water heater will emit three tons of CO_2 per year compared to the average natural gas water heater that only emits 1.3 tons of CO_2 per year. However, the proposed standards will only increase GHG by eliminating the entire market of clean burning natural gas water heaters and advising consumers to purchase the more polluting and expensive-to-operate electric appliances.

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[1] DOE Statement of Policy, 76 Fed. Reg. 51281, 51282 (2011).
[2] *Id.*
[3] Review of Site (Point-of-Use) and Full-Fuel-Cycle Measurement Approaches to DOE/EERE Building Appliance Energy Efficiency Standards, available at http://www.nap.edu/catalog.php?record_id=12670.

As the public becomes more aware of their environmental footprint and its impact, the source based or FFC energy efficiency metrics will give consumers the necessary information to aid in decisions that will help them reduce their potential carbon footprint. The use of FFC is already being done within the ENERGY STAR®. Allowing customers to shift to cleaner energy sources will not only have an environmental benefit but it will also have positive health impacts.

APGA thanks the EPA for its consideration of these comments. Please do not hesitate to contact APGA if you would like to further discuss our comments and recommendations.

Respectfully submitted,

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