



November 11th, 2021

VIA E-mail: WaterHeaters@energystar.gov

Abigail Daken
EPA Manager
ENERGY STAR HVAC Program
U.S. Environmental Protection Agency

Re: Draft 1, ENERGY STAR Version 5.0 Residential Water Heaters Specification.

Dear Ms. Daken,

Giant Factories Inc. respectfully submits the following comments in response to the U.S. Environmental Protection Agency's (EPA) revision of the ENERGY STAR specification for water heaters announced on October 5th, 2021. In the announcement, EPA released the first draft of the Version 5.0 ENERGY STAR specification for Residential Water Heaters.

Giant Factories Inc. is a water heater manufacturer located in Montreal, Quebec. We manufacture electric, gas and oil residential and commercial storage water heaters. Our sale network is from coast to coast in Canada and the New England region in the United States.

Draft 1, Version 5.0 ENERGY STAR Residential Water Heaters Specification.

Giant is in general agreement with EPA staff's decision to propose more stringent criteria for gas-fired instantaneous water heaters. We believe that there is a good rationale to raise the UEF level for this category of product but would recommend a level of $UEF \geq 0.93$. This proposed level would allow consumers a broader choice of high efficiency products while maintaining differentiation in the market place.

On the other hand, Giant does not agree with EPA proposal to raise the UEF level for Gas-Fired Storage Water Heaters and Gas-Fired Storage Residential-duty Commercial Water Heaters to a value of one or greater. This would literally remove all gas-fired storage water heaters from the Energy Star certified products list in Canada and the USA as no commercialized products are meeting this requirement ($UEF \geq 1.0$) today. We believe that

this requirement would have a negative impact in the market in different ways:

- Many gas utilities are referencing Energy Star levels to promote higher efficiency gas storage water heaters with incentive programs. Without any product meeting the proposed criteria, we believe that many incentives programs could be jeopardized, leaving consumers without any affordable higher efficiency options. This will inevitably drive consumers towards the cheapest products on the market or like to like replacement, which will most probably be the least efficient ones.
- Recommending a level where there is no product commercially available is, in our opinion, going against Energy Star's important role of pointing consumers towards higher efficiency products. We believe that consumer choice is important and that Energy Star Specifications should include different categories of water heaters from various technologies and fuel types. This will help consumers make an energy efficient decision within those categories. EPA is going towards an Energy Star Specification almost exclusive to electric Heat Pump Water Heaters but we know that not every installation is well suited for those products. Thus far, consumers will turn to other technologies for that reason, or other reasons, and it is our opinion that they need to have some direction towards most efficient products. We know that gas heat pump water heater technology is promising and we really hope that it will be available commercially in the near future as another option to help improve overall energy savings and GHG reductions. Nevertheless, it seems to us that a new technology should be able to demonstrate its performance, reliability and cost effectiveness in the field prior to be referenced in the Energy Star Program. It could be very detrimental to the Energy Star mark if those products do not provide the level of performance or the reliability that everyone is hoping they will deliver in the field.

Giant's proposal would be to come up with a UEF level that would allow gas storage condensing water heaters to be recognized through the Energy Star Program. This would provide consumers with options for commercialized high efficient gas storage products but also put storage water heaters on the same playing field as gas instantaneous water heaters. We are of the opinion that those products are providing a meaningful differentiation in the market but would also provide incentives for manufacturers to expand their offering and continue to improve products in this category.

Giant can appreciate the trend in this first draft proposal which is consistent with the Biden Administration's dedication to decarbonization (electrification). Just want to emphasis the fact that many gas utilities are working on renewable natural gas and other technologies that are really promising (biogas, hydrogen enriched natural gas, etc.). Usage of low carbon natural gas should not be neglected as it should be part of the overall effort to reduce

GHG. We know that electrification alone is not the solution. It is pretty obvious when you look at site versus source energy and you can then appreciate that gas appliances can sometimes make a lot more sense than electric appliances. What we are saying here is that Energy Star should not favor one technology over another or one source of energy over another. We believe that we should point consumers towards different technologies that are in fact saving energy and reducing greenhouse gas emissions in real life conditions and applications. We are of the opinion that the direction Energy Star is taking could undermine all of the efforts the gas industry is putting forward to reduce its carbon footprint and it would be contrary to our common goal.

Also, the adoption of EPA Energy Star criteria in Canada has always been a little puzzling for Giant. EPA conducts its analysis in the USA only to determine its specifications. That takes into consideration environmental, economic, social and demographic conditions that are specific to the USA. EPA uses that data to justify any of their proposals based on payback period, annual energy savings and GHG reductions. We know that those conditions are often much different in Canada and that it could drastically change the conclusions of performance analyses when Canadian specific conditions are applied. We would really encourage Energy Star Canada to conduct analysis that would be supported by data that are specific to Canada to validate some of the conclusions drawn by the U.S. EPA. We believe that for some technologies, notably heat pump technologies, environmental conditions will have a huge impact on the real performance of those products in the field and that it should be taken into consideration for the Canadian market. We are aware that some organizations (NEEA, CSA Group) have looked at Cold Climate Specifications for heat pump water heaters and we believe that a closer look at performance variations when products are tested to those specifications could be helpful to characterize those products when installed in Canada.

We appreciate this opportunity to submit comments and thank you in advance for your consideration.

Sincerely,



Paul Hikspoors, Eng.
Director of Engineering
Giant Factories Inc.