

Appliance Standards Awareness Project
American Council for an Energy-Efficient Economy
Natural Resources Defense Council

April 12, 2019

Dr. Stephanie Johnson
U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
Building Technologies Office, EE-5B
1000 Independence Avenue SW
Washington, DC 20585

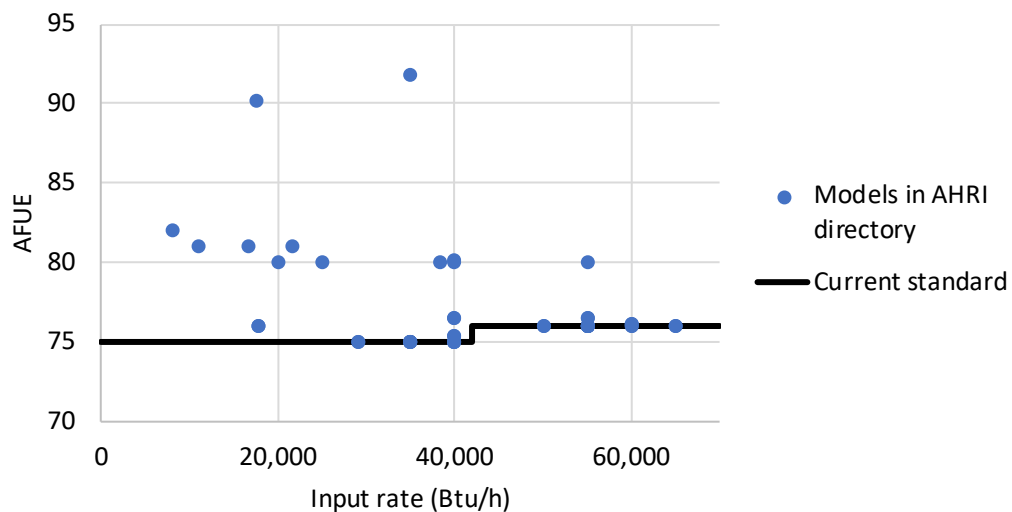
RE: Docket Number EERE-2019-BT-STD-0002: Request for Information for Energy Conservation Standards for Direct Heating Equipment

Dear Dr. Johnson:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), American Council for an Energy-Efficient Economy (ACEEE), and Natural Resources Defense Council (NRDC) on the request for information (RFI) for energy conservation standards for direct heating equipment. 84 Fed. Reg. 6095 (February 26, 2019). We appreciate the opportunity to provide input to the Department.

There may be an opportunity for significant energy savings from amended standards for direct heating equipment. In particular, as shown in Figures 1 and 2 below, there is significant market availability of gas wall heaters (both fan type and gravity type) that exceed the current standard levels. For gas wall fan type heaters, the current standard is either 75% AFUE or 76% AFUE depending on input rate. There are models across a wide range of input rates with AFUE values of 80% or above.

Figure 1. Gas wall fan type heater models in the AHRI directory¹

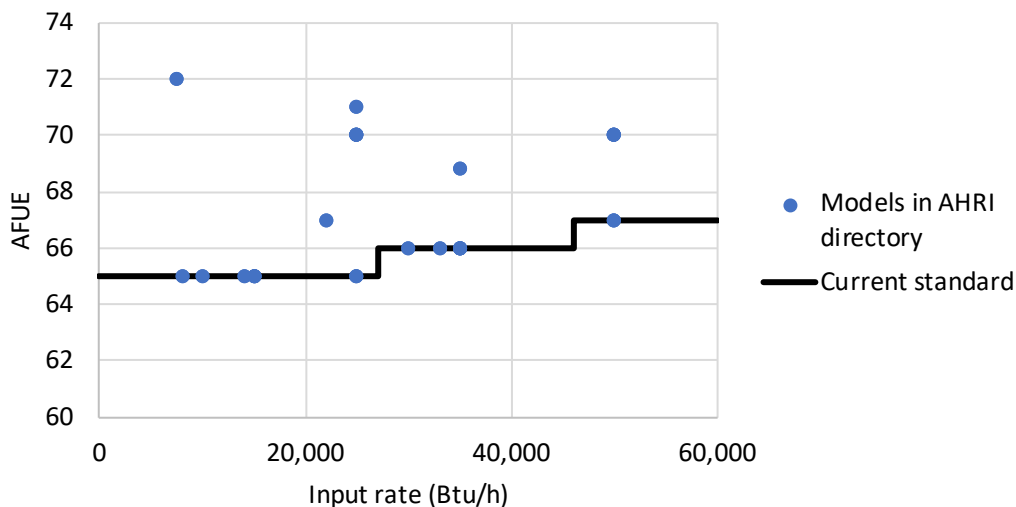


¹ As of April 2, 2019.

Even greater savings could be achieved with condensing products. Figure 1 shows that there are two models of condensing gas wall fan type heaters with AFUE values of 90% and 92%, respectively. We would expect that these condensing products would reduce energy use by about 17-18% relative to heaters just meeting the current standards.²

For gas wall gravity type heaters, the current standard is between 65% and 67% AFUE depending on input rate. There are models across a wide range of input rates with AFUE values of 70% or above.

Figure 2. Gas wall gravity type heater models in the AHRI directory³



We encourage DOE to consider potential amended efficiency levels for direct heating equipment, and in particular for gas wall heaters.

We encourage DOE to consider a standard for unvented heaters addressing off mode energy consumption. We understand that unvented heaters with standing pilot lights may waste a significant amount of energy in off mode (i.e. during the non-heating season). We encourage DOE to investigate the off mode energy use of unvented heaters and the feasibility of a potential standard.

Energy conservation standards for direct heating equipment help overcome persistent market failures. In the RFI, DOE requests comment on market failures.⁴ Market failures for direct heating equipment include the split incentive problem, panic purchases, a lack of information, and limited stocking of efficient products. The split incentive problem refers to instances in which the purchaser of a product does not pay the utility bills to operate that product. We understand that direct heating equipment is largely used in older homes, many of which may be occupied by renters. In these situations, the landlord purchases the heating equipment, while the tenant typically pays the heating bill. Since the landlord does not pay the heating bill, they have no incentive to purchase a more-efficient product.

² (90-75) / 90 = 17%; (92-75) / 92 = 18%.

³ As of April 2, 2019.

⁴ 84 Fed. Reg. 6106.

Panic purchases occur in situations when a product such as a heating appliance has failed and the consumer's top priority must be to replace the product as soon as possible. When a consumer's heater fails during the heating season, the consumer will be without heat until the product is replaced. In this situation, the consumer will not have time to research their available options and will likely be stuck with whatever product their contractor has on the truck.

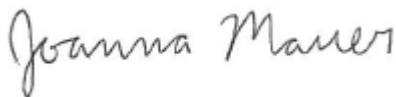
Consumers of direct heating equipment will generally lack the information necessary to make an informed decision about purchasing a more-efficient product. It would be almost impossible for a consumer to calculate the life-cycle costs of different models, which would require knowing such information as their heating load, projected energy prices, and average equipment lifetimes. In many cases consumers may not even know that different models of direct heating equipment may have significantly different efficiencies.

Finally, limited stocking of efficient products can limit the choices available to consumers. Retail stores and equipment distributors have only limited space to store and display products. In the case of direct heating equipment, consumers may only have limited options to choose from, which may not include the most-efficient products available on the market.

Energy conservation standards help overcome each of these market failures by ensuring that all products meet a minimum level of efficiency.

Thank you for considering these comments.

Sincerely,



Joanna Mauer
Technical Advocacy Manager
Appliance Standards Awareness Project



Chris Perry
Senior Analyst, Buildings Program
American Council for an Energy-Efficient
Economy



Joe Vukovich
Energy Efficiency Advocate
Natural Resources Defense Council