



Consumer Federation of America

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November 22, 2016

Mr. John Cymbalsky
U.S. Department of Energy
Building Technologies Program
Mailstop EE-5B
1000 Independence Avenue, SW.
Washington, DC 20585-0121

RE: Supplemental Notice of Proposed Rulemaking for Energy Conservation Standards for Residential Furnace Standards; Docket Number: EERE-2014-BT-STD-0031; RIN: 1904-AD20

Dear Mr. Cymbalsky:

The Consumer Federation of America (CFA)¹ and the National Consumer Law Center (NCLC)² are writing to provide comments on the September 23, 2016 Supplemental Notice of Proposed Rulemaking (SNOPR) for Residential Furnace Energy Conservation Standards in the above-referenced docket. We have long advocated for an updated standard to provide greater furnace efficiency to benefit consumers through lower energy bills.

We are pleased to see that the Department of Energy (DOE) has proposed a two-tiered, size-based product standard for non-weatherized gas furnaces which basically exempts furnaces under 55,000 Btu/hour from the new, higher standard being proposed and sets an Annual Fuel Utilization Energy (AFUE) level of 92% for furnaces at and above the 55,000 Btu/hour threshold. On October 14, 2015, consumer groups advocated for this approach in response to the DOE's Notice of Data Availability³.

The DOE did extensive analysis on the question of setting thresholds, prior to settling on the proposed standard of an 80% AFUE below 55,000 Btu/hour and 92% above. This proposal dramatically reduces any negative impacts that a single standard might have had.

¹ The Consumer Federation of America (CFA) is an association of more than 250 non-profit consumer groups that, since 1968, has sought to advance the consumer interest through research, education, and advocacy.

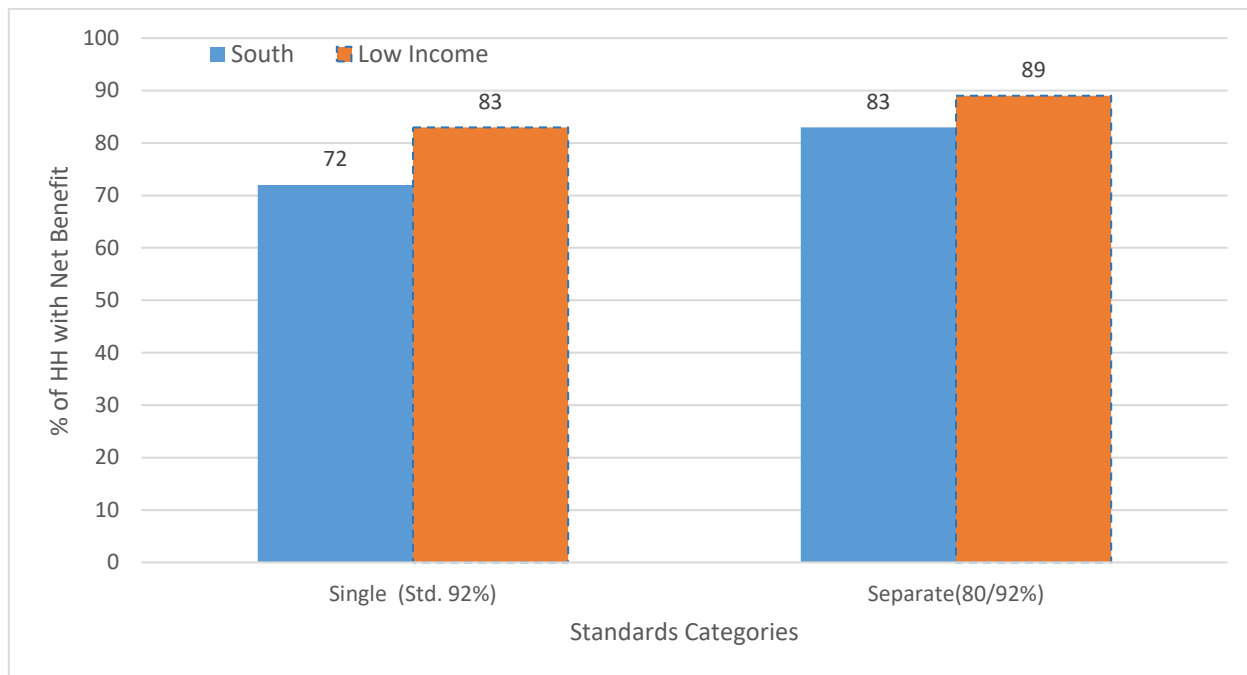
² The National Consumer Law Center (NCLC) is a non-profit organization with a broad mission of seeking economic justice in the marketplace for low-income households. NCLC has a particular focus on making sure that low-income consumers can obtain the essential amounts of energy they need, and that their homes and appliances are as efficient as reasonably possible.

³ <http://consumerfed.org/testimonial/cfa-comments-for-the-department-of-energys-notice-of-data-availability-in-the-proposed-rulemaking-on-energy-conservation-standards-for-residential-furnaces/>

As was shown in Figure 2 of the comments CFA and NCLC submitted on October 14, 2015, (reproduced below), the two-tiered, 80%/92% AFUE standard provides net benefits to 89% of low-income households across the country, and to 83% of households in the south, where smaller furnaces often meet heating load needs.⁴ Moreover, as also seen in the figure below, a two-tier standard significantly increases the percent of households who are net winners compared to a nationwide standard of 92% AFUE. For those in the south, households with a net benefit increase from 72% to 83%; for low-income households, the increase is from 83% to 89%. Under a two-tiered standard, households who benefit vastly outnumber those who do not, by a ratio of 8-to-1 for low-income households⁵ and 5-to-1 for households in the south.⁶

FIGURE 2: SEPARATE SMALL AND LARGE STANDARDS AT 80%/92% DRAMATICALLY IMPROVE THE BENEFIT OF THE STANDARD (from October 14, 2015 consumer group comments)

% of Households with a Net Benefit



Moreover, the net present value of the savings from the proposed non-weatherized gas furnace and mobile home furnace standards range from \$5.6 billion to \$21.7 billion, depending on the assumed discount rate.⁷

As noted above, almost 90% of low income consumers benefit from the proposed standards. Federal furnace standards are particularly important for low-income households because they are disproportionately renters. This means that the owner makes the purchase decision, not the tenant. In the absence of standards, owners will purchase lower-cost, less efficient furnaces, saddling the

⁴ This data is shown in the two right-hand bars of the graph, above the label “Separate (80/92%).”

⁵ 89% enjoy a net benefit, 11% do not, for a ratio of 8-to-1.

⁶ 83% enjoy a net benefit, 17% do not, for a ratio of approximately 5-to-1.

⁷ September 23, 2016 Supplemental Notice of Proposed Rulemaking, § I.C.1., National Benefits and Costs, AFUE Standards (“The cumulative net present value (NPV) of total consumer benefits of the proposed AFUE standards for NWGFs and MHGFs ranges from \$5.6 billion (at a 7-percent discount rate) to \$21.7 billion (at a 3-percent discount rate.)”)

tenant with the higher operating (natural gas) costs. By definition, low-income households have less ability to afford their energy bills, and having inefficient heating equipment means the tenants may go without heat at times due to the bills being unaffordable.⁸

Although some in the industry want to impose unnecessary costs on the almost 90% of consumers who would benefit from the proposed standards to protect the 10% who may not benefit from DOE’s proposal of 92% AFUE for furnaces 55,000 Btus/hr and above, we think it is long past the time to implement this standard. As shown in the graph below, expanding the size exemption to 60,000 Btu/hour does not serve the consumer or national interest. While it is true that 4.5% fewer households would suffer a net cost at the 60,000 Btu threshold⁹, energy savings would decline by 20%.¹⁰ More importantly from a consumer perspective, the net present value of savings would decline between \$900 million¹¹ (at an assumed discount rate of 7%) and \$4.6 billion¹² (at an assumed discount rate of 3%).

Cutoff (Btu/h)	AFUE 92					
	LCC Savings	Simple Payback (years)	% of consumers w/net cost	Energy Savings (quads)*	NPV @ 7% (\$B)	NPV @ 3% (\$B)
55	\$692	6.1	11.1%	2.86	5.31	20.70
60	\$741	5.9	6.6%	2.27	4.43	16.09

As we noted in the CFA/NCLC October 14, 2015 written comments and in oral comments by CFA at the October 17, 2016 DOE hearing, if any change is made, it would be reasonable to raise the standard for large furnaces to 95% AFUE. While this would slightly increase the number of households that suffer a net cost, low income households would see an average increase in Life Cycle Cost (LCC) savings of more than 10%, national energy savings and present value would increase by over 33% and payback periods would be largely unchanged.

We appreciate the opportunity to offer our views on the Department’s SNOPR. An updated standard for furnaces that provides meaningful efficiency improvements and energy savings to consumers is long overdue. We believe the Department’s proposal of 92 AFUE for large furnaces, 55,000 Btu/hour and above, to be the right approach that benefits a vast majority of consumers.

Respectfully submitted,



Mel Hall-Crawford
 Energy Projects Director
 Consumer Federation of America



Charles Harak
 Senior Attorney for Energy Issues
 National Consumer Law Center
 On behalf of its low income clients

⁸ See <http://nlihc.org/article/low-income-african-american-and-renter-households-have-highest-energy-cost-burdens> for a discussion of low-income energy burdens.

⁹ 6.6% have a net cost at a 60,000 Btu threshold; 11.1% have a net cost at the proposed 55,000 threshold.

¹⁰ From 2.86 quads of energy to 2.27 quads.

¹¹ From \$5.31 billion to \$4.43 billion.

¹² From \$20.7 billion to \$16.09 billion.