Appliance Standards Awareness Project
American Council for an Energy-Efficient Economy
Consumer Federation of America
National Consumer Law Center

June 16, 2025

Mr. David Taggart
U.S. Department of Energy
Office of the General Counsel, GC-1
1000 Independence Avenue SW
Washington, DC 20585

RE: EERE-2025-BT-STD-0038: Energy Conservation Standards for Consumer Furnace Fans

Dear Mr. Taggart:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), American Council for an Energy-Efficient Economy (ACEEE), Consumer Federation of America (CFA) and the National Consumer Law Center (NCLC) on behalf of its low-income clients on the request for information (RFI) for standards for consumer furnace fans. 90 Fed. Reg. 20873 (May 16, 2025). We appreciate the opportunity to provide input to the Department.

DOE states in the RFI that it is revisiting the furnace fan standards set in the July 2014 final rule to determine whether they continue to be economically justified and that it may consider levels both higher and lower than the current standards. However, weakening the furnace fan standards would violate EPCA's anti-backsliding provision and would be harmful to consumers and the electric grid. Efficient products meeting the existing standards provide significant cost savings for American households, perform better, and yield significant national energy savings that reduce strain on the electric grid. Weakening the furnace fan standards would also undermine American manufacturers, who have already made capital investments to meet the existing standards.

DOE cannot set standards for furnace fans that are weaker than the current standards. The current standards for furnace fans were adopted in 2014 and took effect in 2019. DOE states in the RFI that the Department may consider amended standards both higher and lower than the current standards. However, setting standards lower than those in effect would violate the anti-backsliding provision in EPCA, which states that "The Secretary may not prescribe any amended standard which increases the maximum allowable energy use… or decreases the minimum required energy efficiency, of a covered product."[1] A federal appeals court ruled in *NRDC v. Abraham* that the DOE is under statutory mandate to not reduce efficiency standards already promulgated in the Federal Register.[2] Further, DOE's suggestion that one can read the anti-backsliding provision as not applying to furnace fans overlooks, among other things, that any standards amended pursuant to 42 U.S.C. 6295(m)(1)(B) are subject to the

[1] 42 U.S.C. 6295(o)(1).
[2] NRDC v. Abraham, 355 F.3d 179 (2nd Cir. 2004).

anti-backsliding provision, and the inclusion of furnaces in the list of covered products found at 42 U.S.C. 6292.

The existing standards for furnace fans are a big cost saver for American households. Furnace fans are among the largest users of electricity in a typical home. Prior to the current standards taking effect, most furnace fans, utilizing inefficient permanent split capacitor (PSC) motors, consumed about 1,000 kWh of electricity per year on average,[3] or nearly 10% of an average home's electricity use.[4] In the July 2014 Final Rule, DOE estimated that the life-cycle cost savings between a baseline furnace fan and one just meeting the current standards are nearly $800 for the most common product class.[5] Cumulatively, the Department estimated that consumer operating cost savings nationwide over 30 years of sales will be up to about $35 billion.[6] Weakening the existing standards would significantly raise utility bills for American households.

Efficient furnace fans perform better. The current standards for furnace fans led to a shift away from less-efficient PSC motors towards electronically commutated motors (ECMs). In addition to being more efficient, ECMs have several practical advantages over traditional PSC motors.[7] ECMs are quieter than PSC motors and are better able to maintain airflow even in installations with high static pressure (e.g., from a dirty air filter), leading to more consistent indoor temperatures, humidity, and comfort.

The existing furnace fan standards are delivering significant energy savings for the nation. DOE estimates that common furnace fans just meeting the current standards use nearly 50% less energy than the least efficient products on the market prior to the standards.[8] Nationally, DOE estimated that that the current standards will yield about 4 quads of full-fuel-cycle energy savings over 30 years;[9] this is roughly equivalent to 4% of total annual U.S. energy use.[10]

Weakening the furnace fan standards would needlessly strain the electric grid and require costly infrastructure upgrades. DOE found in the July 2014 final rule that the standards will reduce electricity consumption by 6,340 gigawatt-hours (GWh) in 2025 and 17,317 GWh in 2040 and lower total installed generation capacity by 1,617 MW in 2040.[11] Weakening the existing standards would increase electricity demand at a time when the electrical grid is strained.[12]

A recent report estimates that U.S. electricity demand will grow 25% by 2030 and 78% by 2050 relative to 2023 levels, with peak demand growing 14% by 2030 and 54% by 2050.[13] Greater electricity demand means increased spending on generation, transmission, and distribution infrastructure, which translates

[3] June 2014 Technical Support Document (TSD), p. 7-25. www.regulations.gov/document/EERE-2010-BT-STD-0011-0111. DOE adopted TSL 4.
[4] www.eia.gov/tools/faqs/faq.php?id=97&t=3
[5] Difference in LCC between baseline and TSL 4 for non-weatherized, non-condensing gas furnaces. Table V.2. 79 Fed. Reg. 38130, 38184 (July 3, 2014)
[6] 79 Fed. Reg. 38130, 38132 (July 3, 2014).
[7] unitedhvacmotors.com/blogs/hvac-guide/ecm-blower-motors#
[8] Table I.1. 79 Fed. Reg. 38130, 38131 (July 3, 2014).
[9] 79 Fed. Reg. 38130, 38132 (July 3, 2014).
[10] www.eia.gov/energyexplained/us-energy-facts/
[11] June 2014 TSD, p. 15-11. www.regulations.gov/document/EERE-2010-BT-STD-0011-0111. DOE adopted TSL 4.
[12] Executive Order 14262 of April 8, 2025; www.govinfo.gov/content/pkg/FR-2025-04-14/pdf/2025-06381.pdf
[13] www.icf.com/-/media/files/icf/reports/2025/energy-demand-report-icf-2025_report.pdf?rev=c87f111ab97f481a8fe3d3148a372f7f. p. 3.

to higher electricity bills for consumers. The same recent report projects that rising electricity demand could result in residential retail electricity rates increasing by between 15% and 40% by 2030, with electricity rates doubling for some utilities by 2050.[14] Repealing the current standards for furnace fans would further exacerbate increases in electricity demand that will cost utilities and ultimately consumers money. Conversely, DOE found in the July 2014 final rule that the furnace fan standards will save utilities $2.27 billion by reducing generation capacity needs—savings that ultimately are passed on to consumers.[15]

Weakening standards for furnace fans would undermine manufacturer investments. The existing furnace fan standards have been in effect for nearly six years, so the capital investments made by furnace fan and HVAC equipment manufacturers, estimated to be about $41 million,[16] to comply with the standards have already been made. Weakening the standards would only serve to undermine investments made by American manufacturers, potentially putting them at a disadvantage versus foreign competition.

Thank you for considering these comments.

Sincerely,

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[14] *Ibid*.
[15] June 2014 TSD, p. 15-13. www.regulations.gov/document/EERE-2010-BT-STD-0011-0111. DOE adopted TSL 4.
[16] Tables IV.12, IV.14. 79 Fed. Reg. 38130, 38173–38174 (July 3, 2014).