EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES
NORTHWEST ROCKY MOUNTAIN WASHINGTON, D.C. INTERNATIONAL

July 10, 2015

Re: "Energy Conservation Program for Consumer Products: Energy Conservation Standards for Residential Furnaces," 80 Fed. Reg. 13,120 (Mar. 12, 2015).

Docket No. EERE–2014–BT–STD–0031; RIN 1904–AD20

Earthjustice submits the following comments on the Department of Energy's (DOE's) Notice of Proposed Rulemaking (NOPR) for energy conservation standards for residential furnaces.

I. Separate product classes for non-condensing furnaces are not authorized.

In the NOPR, DOE correctly concludes that any unique venting and drainage characteristics do not provide a basis for dividing gas furnaces into condensing and non-condensing product classes. The Energy Policy and Conservation Act (EPCA) narrowly constrains DOE's authority to create product classes, and as explained in the NOPR and discussed below, creating a separate product class to carve-out non-condensing furnaces from energy conservation standards that are based on technologically feasible and economically justified condensing technology would exceed the Department's statutory authority.

EPCA includes two provisions relevant to the subject of product class creation: section 325(q)(1) and section 325(o)(4). Section 325(q)(1) establishes two paths by which DOE may develop new product classes: one that is mandatory and one that is permissive.[1] Under subparagraph (A), separate product classes are required when different varieties of the same covered

[1] Section 325(q)(1) provides as follows:

> (1) A rule prescribing an energy conservation standard for a type (or class) of covered products shall specify a level of energy use or efficiency higher or lower than that which applies (or would apply) for such type (or class) for any group of covered products which have the same function or intended use, if the Secretary determines that covered products within such group—
>
> (A) consume a different kind of energy from that consumed by other covered products within such type (or class); or
>
> (B) have a capacity or other performance-related feature which other products within such type (or class) do not have and such feature justifies a higher or lower standard from that which applies (or will apply) to other products within such type (or class).
>
> In making a determination under this paragraph concerning whether a performance-related feature justifies the establishment of a higher or lower standard, the Secretary shall consider such factors as the utility to the consumer of such a feature, and such other factors as the Secretary deems appropriate.

42 U.S.C. § 6295(q)(1).

WASHINGTON, DC OFFICE 1625 MASSACHUSETTS AVENUE, SUITE 702 WASHINGTON, DC 20036

T: 202.667.4500 F: 202.667.2356 DCOFFICE@EARTHJUSTICE.ORG WWW.EARTHJUSTICE.ORG

product "consume a different kind of energy." 42 U.S.C. § 6295(q)(1)(A). For example, separate product classes are required under this provision for gas and oil-fired furnaces. In contrast, subparagraph (B) is permissive, but limited: DOE has discretion to create separate classes for products based on the presence of "a capacity or other performance-related feature," but the Department may exercise this authority only if "such feature justifies a [different] standard." *Id.* § 6295(q)(1)(B). The provision then sets out criteria for DOE to apply in determining whether a given feature justifies a unique standard. Although DOE must consider the utility of the feature, the Department is free to supplement this consideration with any other factors it deems appropriate. *Id.* § 6295(q)(1).

In contrast to section 325(q)(1), which explicitly provides for the creation of product classes, section 325(o)(4) implicates such authority indirectly.[2] Although the main thrust of the provision is to prohibit the adoption of standards that eliminate certain product attributes, the last sentence clarifies that DOE may separate covered products into distinct classes to avoid such a conflict. *Id.* § 6295(o)(4). However, standards that group all varieties of a covered product into a single class are only prohibited under 325(o)(4) when such standards would likely result in the unavailability of features that are substantially the same as those currently available. *Id.*[3] In enacting section 325(o)(4), Congress was careful to emphasize that DOE must balance the preservation of consumer utility with the energy-saving objectives of the statute: "A valid standard may entail some minor loss of characteristics, features, sizes, etc.; for this reason, the Act requires that 'substantially the same,' though not necessarily identical, characteristics or features should continue to be available." H. Rep. 100-11, at 23 (1987). In sum, Congress did not intend the resulting unavailability of *any* and *every* feature to be a barrier to the imposition of strong efficiency standards. Rather, EPCA only bars standards that would have a substantial impact on consumer utility.

Applying this statutory framework to gas furnaces shows that DOE is not compelled to create separate product classes for condensing and non-condensing models; on the contrary, separating gas furnaces into condensing and non-condensing classes would be arbitrary and unlawful. First, gas furnaces do not fit within EPCA's narrow criterion for mandatory product class separation – condensing gas furnaces and non-condensing gas furnaces consume the same kind of energy. *See* 42 U.S.C. § 6295(q)(1)(A). Therefore, to separate condensing and non-condensing models, DOE would need to find that the venting and drainage characteristics of non-condensing

---

[2] Section 325(o)(4) provides as follows:

> (4) The Secretary may not prescribe an amended or new standard under this section if the Secretary finds (and publishes such finding) that interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States in any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States at the time of the Secretary's finding. The failure of some types (or classes) to meet this criterion shall not affect the Secretary's determination of whether to prescribe a standard for other types (or classes).

42 U.S.C. § 6295(o)(4).

[3] Congress, in enacting this language in 1987, explained that "[t]he burden of producing evidence and proving that a standard level will result in the unavailability of certain characteristics, etc., rests on interested persons asserting the claim of unavailability." H. Rep. 100-11, at 23 (1987).

furnaces are performance related features that justify a weaker standard, because, for example, the elimination of non-condensing furnaces from the market would leave consumers with no substantially similar alternatives. *See id.* §§ 6295(o)(4), (q)(1)(B). But as the NOPR explains, condensing and non-condensing furnaces "provide the same utility to the consumer," and nothing about the venting and drainage characteristics of gas furnaces "provide unique utility to consumers beyond the basic function of providing heat, which all furnaces perform." 80 Fed. Reg. at 13,138. That being the case, the NOPR correctly concludes that "DOE has no statutory basis for defining a separate class based on venting and drainage characteristics." *Id.*

DOE's previous treatment of gas appliances using condensing technology confirms that non-condensing models do not merit protection from energy conservation standards in a separate product class. In the 2007 furnace standards rulemaking, DOE considered and rejected comments recommending that the Department group condensing and non-condensing furnaces into separate product classes. DOE explained that "the addition of a second heat exchanger" in condensing models "represents a feature that does not change utility to the consumer. Therefore, the Department included condensing and non-condensing designs in a single product class." 69 Fed. Reg. 45,420, 45,429 (July 29, 2004). Similarly, in 2010, DOE adopted energy conservation standards for gas storage water heaters that require condensing performance in the larger storage capacity sizes. In that final rule, DOE recognized that condensing gas water heaters pose the same venting and condensate disposal issues as condensing furnaces. 75 Fed. Reg. 20,112, 20,138 (Apr. 16, 2010) (discussing comments of the American Council for an Energy Efficient Economy). However, DOE determined that it was appropriate to treat condensing gas-fired water heaters as a technology option to improve the efficiency of gas water heaters, not as a separate class of water heaters altogether. *Id.*

Although energy conservation standards for some products have established classes of equipment based on parameters similar to those that distinguish condensing and non-condensing gas furnaces, none of these examples suggest that a similar approach here would be appropriate. The NOPR discusses the example of ventless clothes dryers, and correctly concludes that the treatment of such dryers reflects the unique utility that the venting characteristics of such dryers provide to consumers – utility that non-condensing furnaces do not duplicate. 80 Fed. Reg. at 13,138. A few additional examples are discussed below.

For commercial package boilers, DOE has adopted standards that distinguish between natural draft and forced draft steam boilers, 10 C.F.R. § 431.87(b), but the separate classes for this equipment were established by the American Society of Heating, Refrigeration and Air-Conditioning Engineers and adopted by DOE pursuant to section 342 of EPCA, upon finding that clear and convincing evidence did not show that stronger standards for this equipment would be technologically feasible and economically justified. 74 Fed. Reg. 36,312, 36,313 (July 22, 2009).[4] Because ASHRAE established these product classes and EPCA, with limited exceptions, compels

[4] Moreover, the manufacturers of commercial package boilers have disputed the need for separate product classes for natural draft and forced draft models. *See* Comments of Air-Conditioning, Heating, and Refrigeration Institute (Jan. 20, 2015) at 2 (Document ID # EERE-20130BT-STD-0030-0037) ("Although DOE may see the need to classify natural draft commercial packaged boilers as covered equipment; we do not believe that need extends to creating a separate equipment class for those products in the efficiency standards."); Comments of Lochinvar, LLC (Jan. 19, 2015) at 1 (Document ID # EERE-20130BT-STD-0030-0034) (opposing "different minimum ratings for natural draft and mechanical draft boilers").

adoption of the ASHRAE standards, *see* 42 U.S.C. § 6313(a)(6), the standards for commercial package boilers do not inform how DOE should address venting characteristics in the first instance.

Similarly, for furnace fans, although the DOE standards establish separate product classes for furnace fans used in condensing and non-condensing furnaces, the decision to establish separate classes was based on the higher static pressure that the presence of a secondary heat exchanger creates in a condensing furnace. To fulfill consumers' performance needs for a furnace fan – i.e., to circulate warmed air, DOE determined that furnace fans used in condensing furnaces would need to consume more electrical energy. *See* Furnace Fans NOPR TSD § 3.1.2 (Sept. 2013) (Document ID # EERE-2010-BT-STD-0011-0068). In other words, the ability to circulate warmed air – the primary consumer utility of a furnace fan – would be adversely affected if DOE could not distinguish between furnace fans for condensing and non-condensing applications. But here, the ability to generate heat – the primary consumer utility of a gas furnace – would not be adversely affected if DOE maintains a single product class encompassing both condensing and non-condensing furnaces.

II. DOE may not lawfully ignore gas furnace manufacturers' production of substitute products.

If DOE concludes that stronger standards for gas furnaces would result in a market shift to other products, such as heat pumps or electric furnaces, the Department must take into account any positive impacts of that market shift on gas furnace manufacturers who also produce the substitute products. It would be arbitrary and unlawful for DOE to examine one side of the ledger while ignoring the other.

Manufacturers of heat pumps hold significant market share in the gas furnace industry. As DOE's Technical Support Document (TSD) for the NOPR explains, seven manufacturers "hold the domestic gas furnace market almost entirely: Carrier, Goodman, Lennox, Trane, Rheem, York, and Nordyne." NOPR TSD at 3-5. These same manufacturers supply the vast majority of the market for central air conditioners and heat pumps. As reproduced in Table 1 below, the TSD for the 2011 standards for residential central air conditioners, heat pumps, and furnaces[5] showed that the manufacturers (and/or parent companies) that control 99% of the U.S. residential non-weatherized gas furnace market also control 97% of the air conditioner and heat pump market. Therefore, because gas furnace manufacturers also produce heat pumps, if a new energy conservation standard for gas furnaces prompts households to purchase heat pumps instead of gas furnaces, the companies that manufacture gas furnaces would likely receive greater revenue from the sale of heat pumps, offsetting in full or in part, the loss of revenue from gas furnace sales.

[5] Central Air Conditioners, Heat Pumps, and Furnaces TSD (June 2011) at 3-13 to 3-15 (Document ID # EERE-2011-BT-STD-0011-0012).

Table 1 – Manufacturer Market Shares for Non-Weatherized Gas Furnaces and Air-Conditioners and Heat Pumps

Manufacturer	NWGF Market %	ACHP Market %
Carrier	32	27
Goodman	15	14
Lennox	13	12
Trane	13	14
Rheem	12	12
York	9	9
Nordyne	5	9
TOTAL	**99**	**97**

The plain language of EPCA unambiguously requires DOE to consider this impact on gas furnace manufacturers. EPCA requires DOE to examine "the economic impact of the standard on the manufacturers . . . of the products subject to such standard." 42 U.S.C. § 6295(o)(2)(B)(i)(I). As defined by the statute, "'manufacturer' means any person who manufactures a consumer product." 42 U.S.C. § 6291(12).[6] For purposes of this definition, the term "person" includes "(A) any individual, (B) any corporation, company, association, firm, partnership, society, trust, joint venture, or joint stock company, and (C) the government and any agency of the United States or any State or political subdivision thereof." 42 U.S.C. § 6202(2). Thus, a "person who manufactures" includes the entire corporation that manufactures, not just a part thereof. Congress obviously knew how to define "person" as including subdivisions of a larger entity, as it expressly defined the term as including "any State *or political subdivision thereof,*" but plainly chose not to do so with respect to subdivisions of corporations. *Id.* (emphasis added).

Additionally, the requirement that a revised standard achieve "the maximum improvement in energy efficiency" that "is technologically feasible and economically justified," 42 U.S.C. § 6295(o)(2)(A), indicates Congress's intent to examine all manufacturer impacts, including positive impacts, that foster achievement of that goal. An analytical approach that accounts for only the potentially negative impacts of energy conservation standards while completely ignoring offsetting benefits would undermine Congressional intent.

Such an approach would also be arbitrary and capricious, because DOE's analysis of the cumulative regulatory burden considers that regulatory actions that cover other kinds of products will affect the profitability of gas furnace manufacturers. *See* 80 Fed. Reg. at 13,172 (considering that gas furnace manufacturers also produce other appliances that have existing or upcoming DOE energy conservation standards rulemakings). Moreover, in this rulemaking, DOE has evaluated the benefit-reducing impacts of a market shift to substitute product, e.g., by reducing the projected energy savings from the proposed standards to account for the energy consumption of the substitute products. *See id.* at 13,173. For DOE to consider the full scope of manufacturers' product offerings when it weighs against the imposition of strong standards, but fail to recognize that same degree of

[6] EPCA defines "manufacture" broadly to include "manufacture, produce, assemble or import." 42 U.S.C. § 6291(10).

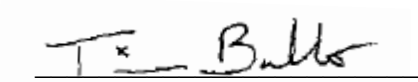
horizontal integration when it can mitigate an adverse impact is the antithesis of reasoned decisionmaking.[7]

DOE's practice also confirms the appropriateness of taking into account the potential benefits to manufacturers of covered products from the increased sales of substitute products. For example, in the 2009 rulemaking prescribing standards for general service fluorescent lamps and incandescent reflector lamps, "DOE recognize[d] that the energy conservation standards may induce sales of non-covered products which are in whole or in part manufactured by the same manufacturers as the products covered by this rulemaking. These sales will increase the revenues and possibly increase the profits of the manufacturers that make covered [lamps]." 74 Fed. Reg. 34,080, 34,127 (July 14, 2009). Therefore, DOE considered as an upward bound for the manufacturer impact analysis, that the substitution of other lamps for the lamps covered by the 2009 rule would re-direct those lost revenues to the same manufacturers. *Id.* at 34,127-28.

In sum, EPCA requires the Department to evaluate the impact of gas furnace standards on the company or entity that manufactures, produces, assembles or imports gas furnaces. Therefore, DOE cannot confine its analysis of the impact on manufacturers only to the gas furnace producing divisions of large corporations. Even if a shift in demand might require gas furnace manufacturers to re-allocate some capital and labor to other products they make, that would not obviate the requirement that DOE analyze the net impacts of these changes and provide supporting data.

Thank you for the opportunity to participate.

Sincerely,



Timothy D. Ballo
Earthjustice
1625 Massachusetts Ave., NW
Suite 702
Washington, DC 20036
(202) 667-4500
tballo@earthjustice.org

[7] *See, e.g.*, *Air Transp. Ass'n of Am. v. DOT*, 119 F.3d 38, 43 (D.C. Cir. 1997) (rejecting an "internally inconsistent" agency explanation).