Attachment C

Petition for Rulemaking
(October 18, 2018)

October 18, 2018

BEFORE THE

OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

UNITED STATES DEPARTMENT OF ENERGY

WASHINGTON, D.C.

Petition for Rulemaking

Energy Conservation Program:
Energy Conservation Standards for Residential Furnaces
Docket Number EERE-2014-BT-STD-031; RIN No. 1904-AD20

Energy Conservation Program:
Energy Conservation Standards for Commercial Water Heaters
Docket Number EERE-2014-BT-STD-042; RIN No. 1904-AD34

Introduction

The undersigned organizations submit this petition for rulemaking under 5 U.S.C. §553(e). As explained below, we request that the Department of Energy ("DOE"):

- Issue an interpretive rule confirming that energy conservation standards effectively limiting the market for natural gas and/or propane gas ("fuel gas") furnaces or water heaters to products using condensing combustion technology would result in the unavailability of "performance characteristics" within the meaning of the Energy Policy and Conservation Act of 1975, as amended ("EPCA"), 42 U.S.C. § 6291 *et seq.*, and, consistent with that determination,

- Withdraw its proposed standards for residential furnaces and commercial water heaters on the grounds of appropriate written findings as specified by 42 U.S.C. §§ 6295(0)(4) and 6313(a)(6)(B)(iii)(II), respectively.[1]

We believe that these actions would appropriately resolve issues that have already contributed to delays in both the residential furnace and commercial water heater rulemaking proceedings, thereby facilitating a more orderly and efficient resolution of the remaining issues in these proceedings.

The basis for this petition is straight forward. The compatibility of a product with conventional atmospheric venting systems is an important product feature, as is the ability of a product to operate without generating liquid condensate requiring disposal *via* a plumbing connection. Residential furnaces and commercial water heaters that provide these features are generally available in the United States now. Products that use condensing combustion technology ("condensing products") lack either one of these features. Efficiency standards that can only be achieved through the use of condensing combustion technology would therefore have the effect of rendering products with these features unavailable in the United States, a circumstance that EPCA was specifically designed to preclude.

EPCA expressly provides that DOE:

> may not prescribe an amended standard . . . if the Secretary finds (and publishes the finding) that interested persons have demonstrated by a preponderance of the evidence that a standard is likely to result in the unavailability in the United States or any product type (or class) of performance characteristics (including reliability, features, sizes,

[1] Standards for non-weatherized residential furnaces were published in a notice of proposed rulemaking at 80 Fed. Reg. 13120 (March 12, 2015) ("NOPR") and in a supplemental notice of proposed rulemaking published at 81 Fed. Reg. 65720 (September 23, 2016) (Docket No. EERE-2014-BT-STD-0031); standards for commercial water heating equipment were published at 81 Fed. Reg. 34440 (May 31, 2016) (Docket No. EERE-2014-BT-STD-0042). Petitioners request that DOE withdraw all of the standards proposed in these two proceedings. The same issue is presented in the proposed rule for commercial packaged boiler energy conservation standards, Notice of Proposed Rulemaking and Announcement of Public Meeting, 81 Fed. Reg. 15836 (Mar. 24, 2016); litigation concerning that rulemaking is currently pending in the United States Court of Appeals for the Ninth Circuit. *NRDC v. Perry*, (Nos. 18-15380, 18-1545).

capacities, and volumes) that are substantially the same as those generally available in the United States at the time of the finding of the Secretary.[2]

There are no material facts in dispute. In both the residential furnace and commercial water heater rulemaking proceedings,[3] interested parties have demonstrated by a preponderance of the evidence – and DOE has itself acknowledged[4] – that:

- The standards proposed for residential furnaces and commercial water heaters (with a limited exception for certain "small" residential furnaces) can only be achieved by condensing products;

- Condensing products lack both the ability to function with atmospheric venting systems and the ability to function without generating liquid condensate requiring disposal *via* a plumbing connection;

- Products that have the ability to function with atmospheric venting systems and without generating liquid condensate requiring disposal *via* a plumbing connection are currently available in the United States; and

- Standards that can be achieved only by condensing products would make such products unavailable.

The only issue to be resolved is whether the product features at issue are "performance characteristics" for purposes of 42 U.S.C. §§ 6295(0)(4) and 6313(a)(6)(B)(iii)(II), and they plainly are.[5] Accordingly, DOE should issue an interpretive rule confirming that this is the case, and – consistent with that determination – should withdraw its proposed standards for residential furnaces and commercial water heaters on the basis of appropriate written findings pursuant to 42 U.S.C. §§ 6295(0)(4) and 6313(a)(6)(B)(iii)(II), respectively.

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[2] 42 U.S.C. §§ 6295(0)(4) (applicable to residential furnaces) and 6313(a)(6)(B)(iii)(II) (identical provision applicable to commercial water heaters).

[3] *See* note 1.

[4] 81 Fed. Reg. 65720 at 65752-53 (Sept. 23, 2016) (residential furnaces); 81 Fed. Reg. 34440 at 34462-63 (May 31, 2016) (commercial water heating equipment). *Cf.* "An Energy Revolution" [an interview with DOE Secretary Perry] *American Gas* (October 2017) ("We are not going to pursue policies that tell businesses and consumers to choose one energy source over another. … The American people should be able to use the type of energy that they think is best for their businesses, their lives and their families."). http://read.nxtbook.com/aga/american_gas_magazine/american_gas_oct_2017/index.html?utm_source=twitter&utm_medium=social&utm_content=Oktopost-twitter-profile&utm_campaign=Oktopost-WGC+2018#an_energy_revolution

[5] *See* Joint Request for Interpretation, EERE-2014-BT-STD-0031 (filed June 6, 2017) at p. 3 ("It is absurd to suggest that features that may be necessary to make the use of a product practical (or even possible) are not "performance-related features" for EPCA purposes.). *See also* White Paper Developed by the American Gas Association and American Public Gas Association, "In the Upcoming Rulemaking on Amendments to the Minimum Efficiency Standards for Non-Weatherized Residential Gas Furnaces, DOE Should Employ Separate Product Classes for Condensing and Noncondensing Furnaces" (Oct. 22, 2014) (detailing the unique performance-related characteristics and consumer utility of non-condensing furnaces) (attached to Joint Request for Interpretation, supra).

Features Precluded by the Use of Condensing Combustion Technology

Conventional fuel gas products are designed for atmospheric venting, typically through vent systems that carry exhaust gases, via buoyancy, vertically through the roof of the buildings in which they are installed. The vast majority of existing buildings and homes in which fuel gas products are installed in the United States were built with atmospheric venting systems designed to accommodate such products. Atmospherically-vented products are compatible with these existing venting systems (and with other atmospherically-vented products that use them); condensing products are not.

Gas products using condensing combustion technology provide increased thermal efficiency by extracting additional heat from combustion gases before they are vented. As a result, condensing products produce liquid condensate and cooler exhaust gases that lack sufficient buoyancy to exit a building via an atmospheric venting system. Condensing products therefore require plumbing for condensate disposal and "power" (*i.e.*, positive pressure) venting, typically through horizontal venting penetrating an exterior building wall.

Importantly, power-vented products *cannot share* common vent systems with atmospherically-vented products under the prevailing national model codes.[6] Positive pressure in such a vent system would force combustion products into occupied spaces within the building through draft hoods and other atmospheric vent system structures. For this reason, safety standards and installation codes specifically separate vented fuel gas appliances and equipment into different categories based on their venting characteristics and specify that power-vented products cannot be connected to atmospheric venting systems or share common venting systems with atmospherically-vented gas products. In addition, condensing products require plumbing for condensate disposal that other vented gas products generally do not.

As further explained below and in comments submitted previously in the residential furnace and commercial water heater rulemaking proceedings, the features condensing products lack – compatibility with existing atmospheric venting systems and the ability to operate without a plumbing connection – are extremely important to consumers. Products with these features can be installed in locations inside buildings where condensing products cannot. Most significantly, non-condensing products can *replace* existing atmospherically-vented products without triggering the need for expensive building modifications or premature replacement of other commonly-vented gas products. Therefore, if these features were unavailable, there would be many cases in which it would be impractical to replace existing gas products with new gas products.

[6] "National Fuel Gas Code, 2015 Edition," ANSI Z223.1/NFPA 54/, American Gas Association/National Fire Protection Association, 2015, and "International Fuel Gas Code," International Code Council/American Gas Association, 2015.

The Statutory Scheme, Precedent, and Application

Energy Policy and Conservation Act

Products that offer different features are often capable of achieving different measured efficiencies. Where this is the case, there is a potential that a particular efficiency standard could be achievable for products with some features but not achievable for products with other features, in which case the standard would effectively ban products with the latter features.

Congress anticipated such situations, and it made it clear that DOE is authorized to regulate product efficiency but *not to restrict the range of features that covered products can provide.* In fact, Congress expressly sought to ensure "that energy savings are not achieved through the loss of significant consumer features."[7] EPCA expressly prohibits the adoption of an energy conservation standard if it has been shown that the standard would have the effect of eliminating a currently-available product feature from the market. 42 U.S.C. §§ 6295(o)(4) and 6313(a)(6)(B)(iii)(II). If DOE determines that a more stringent standard would be appropriate for products with specific product features, it can impose such standards *for products with those features*. Specifically, DOE can "establish different standards within [a] type of covered product . . . based upon performance-related features of the product."[8] However, DOE can do this only by creating *separate product classes* for products with different performance-related features and specifying different (and achievable) standards for each. 42 U.S.C. § 6295(q)(1). This statutory scheme was expressly designed "to ensure that an amended standard does not deprive consumers of product choices and characteristics, features, sizes, etc.," and to "preclude" the adoption of standards "that manufacturers are only able to meet by adopting engineering changes that eliminate performance characteristics."[9] Unfortunately, that is exactly what DOE's proposed standards for residential furnaces and commercial water heaters would do.

Again, there is no dispute as to the relevant facts: DOE has acknowledged that its proposed efficiency standards can only be achieved through use of condensing combustion technology, and that those standards would effectively eliminate gas products that are compatible with atmospheric venting systems and do not require a plumbing connection.[10] DOE has simply suggested that the elimination of such products does not constitute a loss of product features for purposes of 42 U.S.C. §§ 6295(0)(4) and 6313(a)(6)(B)(iii)(II).[11] This suggestion is inconsistent both with EPCA's provisions and DOE's own previous determinations.

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7 H.R. Rep. No. 100-11, 22 (1987).

8 National Energy Conservation Act 1978, H.R. Rep. 95-1751, 115 (1978).

9 H.R. Rep. No. 100-11, 23 (1987).

10 *See* 81 Fed. Reg. 65720 at 65752-53 (Sept. 23, 2016) (residential furnaces); 81 Fed. Reg. 34440 at 34462-63 (May 31, 2016) (commercial water heating equipment).

11 Furnace SNOPR, 81 Fed. Reg. at 65752. This suggestion dates back to the vacated Direct Final Rule, Energy Conservation Program: Energy Conservation Standards for Residential Furnaces and Residential Central Air Conditioners and Heat Pumps, 76 Fed. Reg. 37407, (June 27, 2011) ("Direct Final Rule"). Under an April 24, 2014 order of the United States Court of Appeals for the District of Columbia Circuit approving a settlement among the parties including DOE, that rule (including but not limited to DOE's determination that residential furnaces constitute a single class of products for purposes of 42 U.S.C. 6295(q)(1)(B)) was vacated and

DOE Precedent

One of the ways in which DOE can avoid the adoption of standards that would eliminate available product features is to create separate product classes, with separate (and achievable) standards for products with those features.[12] In addressing the need for separate product classes, DOE has recognized again and again that features that significantly affect the conditions under which products can be used are *performance-related features* for EPCA purposes; *i.e.*, features that should be preserved rather than made "unavailable" by an energy conservation standard.

DOE has recognized different product classes for electric residential clothes dryers to address differences in product features concerning installation space constraints and differences in available electrical power supply.[13] Similarly, DOE's decision to maintain separate product classes for "space-constrained" heat pump and air conditioning products reflects the legal conclusion that product features that resolve significant installation constraints are *performance-related features* providing utility that other products lack.[14] The fact that DOE characterized the need to modify existing buildings to accommodate new products as a matter of "installation cost" did nothing to undermine that legal conclusion.[15] The same legal conclusion is reflected in the provisions of EPCA itself: for example, EPCA provides separate product classes for residential direct heating equipment based on variations in the manner in which such products are designed to be installed.[16]

In light of these precedents, DOE's continued failure to acknowledge that standards effectively eliminating atmospherically-vented gas products would result in a loss of

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remanded to DOE for notice and comment rulemaking. Thus, DOE agreed, and the court ordered, that DOE reconsider the question of whether condensing and non-condensing non-weatherized gas furnaces should be treated as separate product classes in future rulemaking covering these products. DOE's subsequent failure to appropriately resolve this issue has significantly complicated (and thus delayed) development of a final rule regarding residential furnace standards, and has been the subject of extensive adverse comment. *E.g.*, APGA Residential Furnace Comments at 6-11 (filed Nov. 22, 2016) ("DOE fails to address the line of contrary precedent that APGA brought to its attention."); AGA Comments at 32-43 (filed Nov. 22, 2016) ("AGA's view is that the utility and performance characteristics of non-condensing furnaces do require the creation of a separate product class for non-condensing furnaces.").

[12] *See* 42 U.S.C. § 6295(q)(1).

[13] 10 C.F.R. § 430.32(h)(3).

[14] *See* Direct Final Rule, 76 Fed. Reg. at 37446 ("Because physical size constraints for through-the-wall products continue to exist, DOE determined that continuation of the space-constrained product class is warranted.").

[15] *Id*. at 37404 ("DOE believes that through-the-wall equipment intended for replacement applications can meet the definition of space-constrained products because they must fit into a pre-existing hole in the wall, and a larger through-the-wall unit would trigger a considerable increase in the installation cost to accommodate the larger unit.").

[16] *See* 42 U.S.C. § 6295(e)(3). *See also* Final Rule, Energy Conservation Program: Energy Conservation Standards for Ceiling Fans, 82 Fed. Reg. 6826, 6833 (Jan 19, 2017) (adopting 7 product classes: highly-decorative, belt-driven, very small-diameter, hugger, standard, high-speed small-diameter and large-diameter fans). *Cf.* 10 C.F.R. § 430.32(y) (separate the product classes for furnace fans for non-condensing and condensing furnaces; thus DOE distinguished between non-condensing and condensing furnaces as an appropriate basis for creating separate product classes under EPCA).

performance characteristics for purposes of 42 U.S.C. §§ 6295(0)(4) and 6313(a)(6)(B)(iii)(II) would be arbitrary and capricious.

Application

The ability of a product to function without a plumbing connection is a feature that is no less important than features that affect where products will fit, what type of wiring they require, or whether they are designed to be free-standing as opposed to being installed in a wall or a floor. The ability of a product to function with atmospheric venting is an even *more* important feature because *it enables products to be used as replacements for atmospheric-vented products without the need for building alterations or the risk of adverse impacts on other atmospheric-vented gas products tied to a common venting system.*

These product characteristics are very important to the pocketbooks of many American homeowners using natural gas. Many homes with a conventional gas furnace have a commonly-vented conventional gas water heater. If standards make atmospherically-vented furnaces unavailable, furnace replacement may result in venting problems for the commonly-vented water heater, with the result that a perfectly good water heater may need to be replaced as well.[17]

The importance of performance characteristics such as the ability of a product to operate with a building's existing infrastructure and other commonly-vented products cannot be dismissed on the grounds that the building could be modified and other appliances scrapped. It is unreasonable to characterize the lack of such performance characteristics as a mere matter of "installation costs"[18] or to dismiss them as such.[19] In any event, there are cases in which the features condensing products lack are necessary if a gas product is to be used at all. This can occur, for example, in scenarios involving multistory housing in which vented gas products are common-vented into a central venting system that serves multiple floors of residential units that are under different ownership. In such cases, the inability of a consumer to replace an atmospherically-vented product with another atmospherically-vented product would not merely present problems for the consumers involved; it could adversely affect the venting of common-vented products owned by other parties in the same building.

DOE's prior assertion that standards requiring the use of condensing combustion technology would not impose a loss of product "features" is based on two conflicting legal arguments. The first, as stated in the residential furnace rulemaking, is that "the consumer utility of a furnace is that it provides heat to a dwelling, and the type of venting used for particular

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[17] Spire Residential Furnace SNOPR Comments (filed Jan. 6, 2017) (https://www.regulations.gov/contentStreamer?documentId=EERE-2014-BT-STD-0031-0309&attachmentNumber=1&contentType=pdf) (open the PDF document and use the search function for the word "stranded").

[18] *See* 81 Fed. Reg. at 65753.

[19] *Id.* at 37404 ("DOE believes that through-the-wall equipment intended for replacement applications can meet the definition of space-constrained products because they must fit into a pre-existing hole in the wall, and a larger through-the-wall unit would trigger a considerable increase in the installation cost to accommodate the larger unit.").

furnace technologies does not impact that utility."[20] One obvious problem with this argument is that it is wrong on the facts: atmospheric-venting does impact the ability of a furnace to provide heat to a dwelling, because there are some cases in which atmospherically-vented furnaces can be used and condensing products cannot. Another is factors that limit the circumstances under which products can reasonably be used – size, for example – plainly have an impact on the utility of a product and are unmistakably within the range of "performance characteristics" that standards may not make unavailable.[21]

The second argument (again as stated in the context of the residential furnace rulemaking) is that the only "features" that must be preserved are those that "provide unique utility to consumers beyond the basic function of providing heat, which all furnaces perform."[22] The argument that a "feature" must have unique utility "beyond the basic function" of a product is obviously difficult to square with the argument that a "feature" must "impact the ability of a [product] to provide" that basic function. However, the most obvious problem is that there is simply no statutory basis to assert either that a feature must have "unique utility" or that such utility must somehow be "beyond the basic function" of the product. EPCA simply states that DOE may not impose standards if it has been shown that they would likely result in unavailability of currently-available "performance characteristics (including reliability, features, sizes, capacities, and volumes)."[23]

The policy concern driving these meritless legal arguments has been stated by DOE as follows:

> Tying the concept of "feature" to a specific technology would effectively lock-in the currently existing technology as the ceiling for product efficiency and eliminate DOE's ability to address significant technological advances that could yield significant consumer benefits in the form of lower energy costs while providing the same functionality for the consumer."[24]

This policy concern is at odds with the policy judgment Congress made when it adopted the relevant statutory provisions. The limitations on DOE's authority to impose design choices on manufacturers and consumers were not just designed to ensure the continued availability of products having the same "functionality," particularly if "functionality" means nothing more than the basic ability of a product to provide heat (or hot water, as the case may be). Instead, Congress expressly sought to ensure "that energy savings are not achieved through the loss of significant consumer features."[25] Features such as the compatibility of a product with an existing building's venting system and appliances, as well as its ability to operate without the need for a

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[20] 81 Fed. Reg. at 65752.

[21] *See* 42 U.S.C. § 6295(0)(4) (expressly including "sizes" – apart from "capacities or volumes" – among the examples of "performance characteristics" that cannot be made unavailable).

[22] 81 Fed. Reg. at 65753.

[23] 42 U.S.C. §§ 6295(0)(4) and 6313(a)(6)(B)(iii)(II).

[24] 81 Fed. Reg. at 65752 (residential furnaces); 81 Fed Reg. at 23363 (commercial water heaters).

[25] H.R. Rep. No. 100-11, 22 (1987).

plumbing connection, are unquestionably significant to consumers. Arguments to the contrary in the pending rulemaking proceedings amount to transparent attempts to justify exactly the kind of outcome Congress intended to preclude: the adoption of standards that would achieve higher efficiency by eliminating currently available "performance characteristics" (including "features") that are important to many purchasers.

Conclusion

DOE's rulemaking proceedings concerning standards for residential furnaces and commercial water heaters have been fatally undermined by their failure to recognize that EPCA precludes the adoption of standards that would effectively eliminate fuel gas products that do not use condensing combustion technology. Petitioners believe that prompt action to correct that failure is both warranted and necessary to facilitate any reasonably efficient path forward in those rulemaking proceedings. Accordingly, Petitioners respectfully request that DOE – after soliciting and appropriately considering public comment on this Petition – promptly take final action by:

- Issuing an interpretive rule confirming that energy conservation standards limiting the market for natural gas and/or propane gas furnaces or water heaters to products using condensing combustion technology would result in the unavailability of "performance characteristics" within the meaning of 42 U.S.C. §§ 6295(0)(4) and 6313(a)(6)(B)(iii)(II), and

- Withdrawing its proposed standards for residential furnaces and commercial water heaters on the grounds of appropriate written findings as specified by 42 U.S.C. §§ 6295(0)(4) and 6313(a)(6)(B)(iii)(II), respectively.

Further deliberation in the two pending rulemaking proceedings can then occur, with appropriate consideration – as EPCA requires – of any need for separate standards (and separate product classes) for products that use condensing combustion technology and those that do not.[26]

Respectfully submitted,

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[26] *See* 42 U.S.C. § 6295(q)(1).

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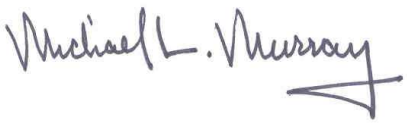

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