

September 26, 2023

via: <http://www.regulations.gov>

**Department of Energy, Energy Conservation Program: Energy  
Conservation Standards for Consumer Water Heaters:  
Notice of Proposed Rulemaking  
Docket Number EERE-2017-ST-STD-0019  
88 FR 49,058 (July 28, 2023)**

**Comments Submitted by the Competitive Enterprise Institute, Heritage Foundation,  
Project 21, 60 Plus Association, Consumers' Research, AMAC Action, Free Enterprise  
Project, Center of the American Experiment, Roughrider Policy Center, Eagle Forum,  
Caesar Rodney Institute, American Consumer Institute, Committee for a Constructive  
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Institute for Energy Research, Rio Grande Foundation**

## I. INTRODUCTION

The undersigned free market and consumer organizations have a longstanding interest in bringing to light the deleterious consequences of federal regulations, which are often neglected by agencies in their attempts to adopt a regulatory agenda. For over 20 years, we have participated in rulemakings conducted by the Department of Energy (DOE) regarding energy and water conservation standards for home appliances. This includes agency rulemakings and subsequent litigation impacting dishwashers, air conditioners, clothes washers and dryers, showerheads, light bulbs, furnaces, and stoves.<sup>1</sup>

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<sup>1</sup> See, Brief Amicus Curiae of the Competitive Enterprise Institute and FreedomWorks, in *Louisiana v. United States Department of Energy*, United States Court of Appeals for the Fifth Circuit, No. 22-60146, July 9, 2022, [https://cei.org/wp-content/uploads/2022/07/DishwasherAmicus-Final\\_FILED.pdf](https://cei.org/wp-content/uploads/2022/07/DishwasherAmicus-Final_FILED.pdf); Comments Of The Competitive Enterprise Institute Regarding The Energy Conservation Program For Consumer Products And Commercial And Industrial Equipment, December 5, 2001; Consumers Research Comment of the Notice of Proposed Rulemaking and Announcement of Public Meeting Concerning the Energy Conservation Program's Test Procedures for Showerheads, <https://consumersresearch.org/cr-comment-on-the-nprm-on-showerhead-test-procedures/>; Comments of Free-Market Organizations to the Department of Energy, Energy Test Procedure for Showerheads, Notice of Proposed Rulemaking, September 20, 2021, <https://cei.org/wpcontent/uploads/2021/09/Showerheads-9-2021.pdf>; Comments of Free Market Organizations to the Department of Energy, Energy Conservation Standards for General Service Incandescent Lamps, Notice of Proposed Determination, November 4, 2019, [https://cei.org/sites/default/files/GSIL\\_Comment-10-2019.pdf](https://cei.org/sites/default/files/GSIL_Comment-10-2019.pdf);

Our focus has been on ensuring that the consumer protections built into the underlying statute, the Energy Policy and Conservation Act of 1975 (EPCA), are given full weight by DOE in the rulemaking process, and that the statutory option of declining to set a standard is chosen when appropriate.<sup>2</sup> In our view, these consumer protections have frequently been downplayed or ignored by the agency when setting excessively stringent appliance efficiency standards that raise overall costs and/or compromise product quality and choice.

Over the last two years, the risk of DOE appliance overregulation has been heightened by the Biden administration’s “whole of government” prioritization of climate change considerations, which has been fully adopted by the agency.<sup>3</sup> This agenda serves as a finger on the scale favoring more stringent appliance regulations on the grounds that they help reduce greenhouse gas emissions. It is also being used by the administration to discourage the use of residential natural gas in favor of the electrification of all appliances.<sup>4</sup> However, doing so subordinates the best interests of consumers to unrelated environmental objectives and thus is contrary to EPCA’s overriding emphasis on consumer utility.

In the first eight months of 2023 alone, we have seen proposed new efficiency standards for stoves, refrigerators, clothes washers, ceiling fans, dishwashers, and now water heaters. All of them would be detrimental to the interests of consumers. Some will raise the up-front cost of appliances enough to make it prohibitive for some homeowners and less likely to be recouped in the form of energy savings for others. Some would compromise choice, features, and performance. The water heaters proposal may well do both.

As will be discussed below, we believe the proposed efficiency standard is not compliant with the consumer protections in EPCA. In particular, it would reduce product choice and also encourage fuel switching by disproportionately burdening natural gas-using water heaters relative to electric ones. For these and other reasons, we believe the proposed rule should be withdrawn.

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Comments of Free Market Organizations to the Department of Energy, Energy Conservation Standards for General Service Incandescent Lamps, Notice of Proposed Rule, January 27, 2022, [https://cei.org/regulatory\\_comments/cei-leads-coalition-opposing-proposed-doe-lightbulb-rule/](https://cei.org/regulatory_comments/cei-leads-coalition-opposing-proposed-doe-lightbulb-rule/); Comments of Free Market Organizations to the Department of Energy, Energy Conservation Standards for Consumer Furnaces, Notice of Proposed Rule, October 5, 2022, [https://cei.org/wp-content/uploads/2022/10https://cei.org/opeds\\_articles/restrictions-on-natural-gas-stoves-are-climate-policy-by-another-name//FurnaceComment-10-5-2022-final.pdf](https://cei.org/wp-content/uploads/2022/10https://cei.org/opeds_articles/restrictions-on-natural-gas-stoves-are-climate-policy-by-another-name//FurnaceComment-10-5-2022-final.pdf); Comments of Free-Market Organizations on Department of Energy Conservation Standards for Consumer Conventional Cooking Products, April 17, 2023, [https://cei.org/regulatory\\_comments/cei-comments-to-department-of-energy-on-proposed-stove-regulation/](https://cei.org/regulatory_comments/cei-comments-to-department-of-energy-on-proposed-stove-regulation/).

<sup>2</sup> 42 U.S.C. §6291 *et seq.*

<sup>3</sup> Executive Order 14008, “Tackling the Climate Crisis at Home and Abroad,” January 27, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>; Department of Energy, “Climate Change,” <https://www.energy.gov/climate-change>.

<sup>4</sup> White House, “Fact Sheet: New Innovation Agenda Will Electrify Homes, Businesses, and Transportation to Lower Energy Bills and Achieve Climate Goals,” December 14, 2022, <https://www.whitehouse.gov/ostp/news-updates/2022/12/14/fact-sheet-new-innovation-agenda-will-electrify-homes-businesses-and-transportation-to-lower-energy-bills-and-achieve-climate-goals/>.

## II. SUMMARY OF THE ARGUMENT

EPCA authorizes DOE to consider setting and periodically revising energy conservation standards for most home appliances, including water heaters.<sup>5</sup> Such standards are to be set so as to “achieve the maximum improvement in energy efficiency...which the Secretary determines is technologically feasible and economically justified.”<sup>6</sup>

EPCA does not prioritize efficiency above all else in the standards-setting process. Instead, the statute contains a number of provisions protecting consumers from excessively stringent standards that may do more harm than good. Most relevant here is the provision in the law, hereinafter the “features provision,” which categorically prohibits any new or amended standard if the Secretary finds, by a preponderance of evidence, that the standard is “likely to result in the unavailability in the United States...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.”<sup>7</sup> This provision prohibits setting an efficiency standard if there is sufficient evidence that it would sacrifice any desired product characteristics. The statute further forbids overly broad appliance standards by requiring that product versions which “consume a different kind of energy,” or have “a performance-related feature which other products within such type (or class) do not have,” be given a separate standard level achievable by them.<sup>8</sup>

Here, the proposed rule impermissibly constrains choice by discriminating among types of gas-fired water heaters. It also engages in improper fuel switching by disproportionately burdening gas-fired models and thus favoring electric versions.

In addition, the extensive and detailed calculations of monetized climate change benefits included in the proposed rule are inappropriate given EPCA’s primary focus on direct consumer benefits. And in any event, this climate change analysis is flawed in that it is based on impermissibly speculative estimates of the social cost of greenhouse gases to calculate regulatory benefits.

## III. THE PROPOSED RULE DISFAVORS CERTAIN TYPES OF GAS-FIRED WATER HEATERS AND IMPERMISSIBLY SKEWS THE OVERALL MARKET TOWARDS ELECTRIC

No two homes are exactly alike, nor are any two homeowners. Given the wide range of home sizes, configurations, existing water heater and venting systems, installation requirements, usage patterns, and other factors, retaining the widest variety of water heater types best serves the interests of the American people and is protected under EPCA. Here, the proposed rule would narrow the range of available water heaters, to the detriment of many consumers.

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<sup>5</sup> 42 U.S.C. §§6292(a)(4), 6295(e).

<sup>6</sup> 42 U.S.C. §6295(o)(2)(A).

<sup>7</sup> 42 U.S.C. §6295(o)(4).

<sup>8</sup> 42 U.S.C. §6295(q)(1).

It is not within the agency's discretion to decide whether a particular feature is important enough to warrant protection under EPCA – the law requires that any feature available at the time of the proposed rule must remain available after a final rule goes into effect. Nonetheless, DOE interprets the features provision very narrowly, essentially assuming that providing hot water is the only thing that matters to the consumer and that the technical details about the system providing it are irrelevant.<sup>9</sup> However, the feature most at issue here is compatibility of the new water heater with the residence in which it is to be installed, and this is a feature of great importance to homeowners and one which is clearly protected under the statute. The proposed rule would significantly hamper and possibly eliminate the water heater types that are the best choice for millions of homes.

Under the proposed rule, a number of homeowners replacing their current non-condensing gas water heater with a new one would be faced with serious installation challenges. This is especially true for older and space constrained homes. In this regard, it is worth noting that the proposed rule disproportionately burdens lower income and senior homeowners more likely to live in residences where installation of a compliant new gas furnace would not only impose high costs but may also jeopardize performance and safety.

Further reducing consumer choice, non-condensing gas-fired instantaneous (tankless) water heaters are subject to an extremely stringent standard under the proposed rule and quite likely would disappear as an option.<sup>10</sup> Although such water heaters are a relatively small percentage of the current market, they are still protected under EPCA since there are homeowners who prefer them. Among the advantages are relative ease of installation due to smaller size as well as the ability to provide an unlimited supply of hot water - factors that provide "utility to the consumer," and thus should be preserved under the law.<sup>11</sup> Ironically, instantaneous water heaters are inherently more energy efficient than comparable storage water heaters since they heat the water when needed rather than maintain a tank full of hot water at all times. But by subjecting them to an impossibly high standard, the proposed rule would effectively take them off the market.

Although both natural gas and electric water heaters are impacted under the proposed rule, gas water heaters are more heavily burdened, raising concerns about fuel switching which is prohibited under EPCA. Under the proposed rule, a significant number of homeowners currently served by a natural gas water heater cannot easily stay with gas for their next water heater. Thus, some homeowners may have little choice but make their next new water heater an electric one. For these reasons, we believe the proposed rule does not, as is required under EPCA, accommodate the needs of all consumers. The proper course of action would have been to consider a separate efficiency level achievable by all types of currently available gas furnaces, but the proposed rule lacks this option.

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<sup>9</sup> 88 FR 49,079-80.

<sup>10</sup> 88 FR 49,060.

<sup>11</sup> 42 U.S.C. §6295(q)(1)(B).

Water heaters, like stoves and furnaces, come in both natural gas and electric versions, and the proposed standards for all three favor electric over gas.<sup>12</sup> At the same time, there is a documented and growing risk to electric reliability across much of the nation, especially as baseload generation sources like coal and natural gas are being retired and replaced by wind and other intermittent renewable sources.<sup>13</sup> In other words, the same Biden Administration climate agenda that favors electric appliances over gas is also adding to the risk of reliance on electric appliances from future power outages. Nonetheless, DOE explicitly declined to consider water heaters that can operate during a blackout as a protected feature under the law.<sup>14</sup>

In sum, the proposed rule could lead to millions of homeowners being limited to water heater options that are not the best choice for their homes. For this reason, it flouts the pro-consumer intent of the statute.

#### IV. CLIMATE CHANGE CONSIDERATIONS ARE SUPERSEDED BY THE CONSUMER PROTECTIONS IN EPCA, AND THEIR QUANTIFICATION BY DOE IS TOO SPECULATIVE TO BE INCLUDED IN THE PROPOSED RULE

Climate change is not mentioned in EPCA’s detailed instructions to DOE on how to set and amend appliance efficiency standards. Regardless, the agency has proclaimed that “[a]ddressing the effects of climate change is a top priority of the Energy Department,” and that this new agency-wide agenda includes “working to dramatically increase the efficiency of appliances....”<sup>15</sup> The NOPR itself references Executive Order 13990, “Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis,” (January 25, 2021), as well as “the need to confront the global climate crisis” as justification for strengthening water heater standards.<sup>16</sup>

The economic analysis in the NOPR incorporates the social cost of greenhouse gas emissions (SC-GHG) and thus the benefits of avoiding these emissions. It quantifies projected climate benefits for the proposed rule of \$25 billion dollars.<sup>17</sup>

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<sup>12</sup>Comments of Free Market Organizations to the Department of Energy, Energy Conservation Standards for Consumer Furnaces, Notice of Proposed Rule, October 5, 2022, [https://cei.org/wp-content/uploads/2022/10https://cei.org/opeds\\_articles/restrictions-on-natural-gas-stoves-are-climate-policy-by-another-name//FurnaceComment-10-5-2022-final.pdf](https://cei.org/wp-content/uploads/2022/10https://cei.org/opeds_articles/restrictions-on-natural-gas-stoves-are-climate-policy-by-another-name//FurnaceComment-10-5-2022-final.pdf); Comments of Free-Market Organizations on Department of Energy Conservation Standards for Consumer Conventional Cooking Products, April 17, 2023, [https://cei.org/regulatory\\_comments/cei-comments-to-department-of-energy-on-proposed-stove-regulation/](https://cei.org/regulatory_comments/cei-comments-to-department-of-energy-on-proposed-stove-regulation/).

<sup>13</sup> See, North American Electric Reliability Corporation (NERC), “2023 ERO Reliability Risk Priorities Report,” August 17, 2023, [https://www.nerc.com/comm/RISC/Related%20Files%20DL/RISC\\_ERO\\_Priorities\\_Report\\_2023\\_Board\\_Approved\\_Aug\\_17\\_2023.pdf](https://www.nerc.com/comm/RISC/Related%20Files%20DL/RISC_ERO_Priorities_Report_2023_Board_Approved_Aug_17_2023.pdf); PJM, “PJM Energy Transition: Resource Retirements, Replacements and Risks, February 23, 2023, <https://www.pjm.com/-/media/library/reports-notice/special-reports/2023/energytransition-in-pjm-resource-retirements-replacements-and-risks.ashx>.

<sup>14</sup> 88 FR 49,079.

<sup>15</sup> Department of Energy, “Climate Change,” <https://www.energy.gov/scienceinnovation/climate-change>

<sup>16</sup> 88 FR 49,131, 49,072.

<sup>17</sup> 88 FR 49,062.

Environmental considerations can be taken into account in the agency's multi-factor determination whether a proposed rule is economically justified.<sup>18</sup> However, they would in any event be superseded by the consumer protections in the statute. In particular, the features provision preserves consumer choice and does so independently of the agency's determination of economic justification. In other words, a new or amended standard, no matter how environmentally beneficial the agency believes it to be, cannot sacrifice a product characteristic that is on the market at the time of the rulemaking. This includes the above-mentioned types of water heaters whose future availability is jeopardized by the proposed rule. In this way, EPCA ensures that the best interests of consumers take precedence over the pursuit of any environmental agenda.

Furthermore, the agency's attempt at quantifying these climate impacts is highly problematic. SC-GHG is an estimate in dollars of the "present value" of the cumulative climate change damages caused by an additional ("marginal") ton of carbon dioxide-equivalent (CO<sub>2</sub>e) greenhouse gases emitted in a given year. It is also an estimate of the benefit of avoiding or reducing one ton of emissions in that year. DOE uses the estimates of SC-GHG from the U.S. government's 2021 Intergovernmental Working Group on the Social Cost of Greenhouse Gases (IWG). The agency multiplies the estimated tons of greenhouse gas emissions avoided by the proposed rule by SC-GHG to arrive at the monetary benefits.

We incorporate by reference a more detailed discussion of the flaws with DOE's use of SC-GHG included in our October 5, 2022 comment to the agency's similar proposed rule for furnace efficiency standards.<sup>19</sup> All of these flaws serve to overstate the calculated benefits of avoided emissions. Among them are the use of improperly low discount rates, reliance on climate models that have consistently overstated actual warming, reliance on baseline emission scenarios that implausibly assume an increasingly coal-centric global energy system through 2100 and beyond, downplaying the capacity for adaptation to mitigate climate impacts, the inclusion of claimed climate benefits out nearly 300 years into the future, and the use of global rather than national benefits. If IWG had used plausible alternative assumptions for some of these inputs, the SC-GHG could have declined substantially or even turned negative.<sup>20</sup> A negative SC-GHG is another way of saying a net benefit.

SC-GHG depends on so many questionable and biased methodological choices that it raises questions about the legality of relying upon it in the proposed rulemaking. In a series of cases dealing with the Environmental Protection Agency's (EPA) modeling of air pollutant risks, the D.C. Circuit Court of Appeals has repeatedly held that an agency's use of a model is "arbitrary" if the model bears "no rational relationship to the reality it purports to represent."<sup>21</sup> Logically, an

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<sup>18</sup> 42 U.S.C. §6295(o)(2)(B).

<sup>19</sup> Comments of Free Market Organizations to the Department of Energy, Energy Conservation Standards for Consumer Furnaces, Notice of Proposed Rulemaking, October 5, 2022, [https://cei.org/regulatory\\_comments/comments-to-doe-energy-conservation-standards-program/](https://cei.org/regulatory_comments/comments-to-doe-energy-conservation-standards-program/).

<sup>20</sup> Kevin Dayaratna, Ross McKittrick, and Patrick Michaels. 2020. Climate sensitivity, agricultural productivity and the social cost of carbon in FUND. *Environmental Economics and Policy Studies* 22: 433-448, <https://link.springer.com/article/10.1007/s10018-020-00263-w>.

<sup>21</sup> *Chem. Mfrs. Ass'n v. EPA* 28 F.3d 1259, 1264 (D.C. Cir. 1994); *Am. Iron & Steel Inst. v. EPA*, 115 F.3d 979, 1004 (D.C. Cir. 1997); *Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 923 (D.C. Cir. 1998); *Sierra Club v. EPA*, 356 F.3d 296, 307 (D.C. Cir. 2004).

agency's reliance on unrealistic emission scenarios or adaptation assumptions is also arbitrary and capricious. Because DOE's benefit-cost analysis incorporates SC-GHG estimates that rely on unrealistic models, emission scenarios, and adaptation assumptions, it is vulnerable to challenge as arbitrary and capricious.

## V. CONCLUSION

The proposed rule would likely deprive millions future water heater buyers of the models best suited for their homes. Not only is this bad public policy but veers far from the intent of EPCA to regulate only if in the best interests of consumers. The inclusion of speculative climate change benefits further serves to undercut the statutory focus on consumer utility and choice. For these reasons, we believe the proposed rule should be withdrawn.

Respectfully submitted,

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