

**Appliance Standards Awareness Project  
American Council for an Energy-Efficient Economy  
California Energy Commission**

March 22, 2019

Mr. Daniel Simmons  
Assistant Secretary  
Energy Efficiency and Renewable Energy  
U.S. Department of Energy  
1000 Independence Ave. SW  
Washington, DC 20585-0121

**Re: Enforcement Policy Statement – Certain consumer water heaters**

Dear Assistant Secretary Simmons:

This letter constitutes comments of the American Council for an Energy-Efficient Economy, the Appliance Standards Awareness Project, and the California Energy Commission regarding the draft Water Heater Definitions Enforcement Policy published by the Energy Efficiency Enforcement Policy Office on March 4, 2019. We have serious concerns with this proposed policy, since it will increase energy use and energy bills, open the door to undercut US manufacturers who produce products that comply with current standards, and violate the “anti-backsliding” provision in the Energy Policy and Conservation Act (EPCA). We strongly urge the Department to drop the provision pertaining to units over 55 gallons storage capacity and to establish a firm sunset date in the policy for units of 55 gallons and less.

The petition has two major provisions, one for water heaters greater than 55 gallons storage capacity (provision II) and one for products of 55 gallons or less (provision III). We discuss each in turn.

**Products Greater than 55 Gallons**

Since April 2015, consumer water heaters greater than 55 gallons of storage capacity have been required to meet efficiency levels that are achievable with electric heat pump water heaters and gas condensing water heaters. DOE established this standard in a final rule published in April 2010, determining that these levels are both technologically feasible and economically justified. This determination was not contested in the courts. US manufacturers have made extensive investments to comply with these duly-promulgated standards and now produce and sell water heaters that use substantially less electricity and gas than under prior standards. However, the new efficiency levels provided in this draft enforcement guidance would more than double electricity use relative to the 2015 standards and would increase gas use by more than 50%. Using DOE data from the 2010 final rule, under the proposed new efficiency levels a US household that purchased an 80-gallon water heater would experience increased energy use that translates to over \$2000 in higher costs over the 13-year lifetime of a residential electric storage water heater and over \$1000 in higher costs over the lifetime of a residential gas storage water heater. These figures are in 2008 dollars and would be

about 20% greater if adjusted for inflation over the past decade. In the 2010 final rule establishing the current standards for residential water heaters, DOE estimated that they would result in energy savings of about 2.58 quads over the 2015-2045 period while providing discounted net benefits to consumers of \$1.4-8.7 billion.

We also suspect there may be an error in the formula published for gas water heaters in the draft enforcement policy. For the 80 gallon example in the paragraph above (assuming a medium draw), the UEF will be only .506, which is lower than even the .518 EF standard that applied from 2004-2015.

Under the proposed enforcement policy, US manufacturers would need to decide whether or not to introduce less efficient products to the market. But for foreign manufacturers who may produce similar products for other countries, this new policy could well provide an entry point to the US market, undercutting US manufacturers.

Furthermore, this new policy would create a new standard that is weaker than the current standard. Under section 325(o)(1) of EPCA “[t]he 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.” That DOE issues these weaker standards in the guise of an enforcement policy instead of a change to the regulations is irrelevant. As the well-known “duck test” goes, if it looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck.<sup>1</sup>

Even if DOE chooses not to enforce this standard, under EPCA section 335, “any person may commence a civil action against any manufacturer or private labeler who is alleged to be in violation of any provision of this part or any rule under this part.” This provision allows any state, company, organization or citizen to sue a manufacturer that produces or imports products that do not meet the standard published in 10 C.F.R. 430.32(d). This could well lead to a checkerboard of enforcement actions, leaving manufacturers and importers with a decision on whether or not to roll the dice on producing or importing products that take advantage of the proposed enforcement policy.

We fail to see why it would be in the public interest for DOE to waste energy and lose energy bill savings, create potential threats to US manufacturers, and risk a checkerboard of local enforcement actions. We urge DOE to drop the proposed policy for units greater than 55 gallons in its entirety.

*Note: DOE’s current enforcement policy for high-temperature storage water heaters also applies to products greater than 55 gallons, as discussed in the section below. Given what appears to be widespread leakage of these units into the residential market for water heaters over 55 gallons (also discussed below), we recommend that the current enforcement policy be ended for units over 55 gallons. For the few applications where quick recovery times are needed, contractors can install true commercial water heaters (power draw of 12 kW or more) and have an electrician de-rate the element for power input needed by the application.*

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<sup>1</sup> Similarly, an enforcement policy that substitutes no standard for a duly-promulgated standard would also violate the anti-backsliding clause. Furthermore, even if the anti-backsliding provision did not exist, DOE could not legally replace a standard developed through a notice-and-comment rulemaking with an alternative standard through an enforcement policy.

## **Products of 55 Gallons or Less**

In the same final rule establishing the minimum efficiency standard for residential water heaters over 55 gallons, DOE also set standards for products of 55 gallons or less. DOE is now proposing to make an exception to this standard for existing electric storage products that “are designed to heat and store water at a thermostatically controlled temperature greater than 180° F.” Our understanding is that the intent is to provide an exemption for products that are used in commercial applications (hence the 180° F provision) but are now classified as consumer water heaters. An enforcement policy for high-temperature water heaters (including a few over 55 gallons) has been in effect since December 2016, but expires on March 31, 2019. Our understanding is that many manufacturers are taking advantage of this lack of enforcement to sell less-efficient commercial electric resistance water heaters into the residential market.<sup>2</sup>

While we understand that water heater manufacturers may need some time to upgrade products not previously understood to fall within the scope of the consumer water heater definition, lack of enforcement is not a long-term solution. There is energy to be saved by upgrading these products to meet the standards. We are also very concerned that products designed for commercial applications above 180° F can leak into the consumer market, undercutting consumer product efficiency standards. Some manufacturers may be better positioned than others to exploit this policy, which would provide an unfair competitive advantage. DOE should also avoid creating potential loopholes.

Therefore, instead of just extending the non-enforcement policy, we believe that DOE should explicitly establish a specific schedule for when it will enforce the consumer water heater standard, so that manufacturers are on notice that they need to modify current products. Since many DOE standards take effect on January 1, we recommend that DOE clarify that this waiver will only be effective until Jan. 1, 2021, providing manufacturers with another 21 months to bring complying products to market. We believe this is sufficient time for them to make the necessary modifications, particularly since work has likely begun because manufacturers know that the current enforcement policy is about to expire.

The proposed DOE policy falls short in two respects – it is not explicit that DOE intends no further extensions of the enforcement policy, and it provides more time than we think is needed or justified. In our view, the keys are that there is an explicit statement that non-enforcement will sunset and that the sunset date should not be so far into the future that there is an incentive to figure out ways to sell these products in the consumer market.

## **Cross-Cutting**

As noted in the proposal, “DOE enforcement policies may be modified at any time.” We think any non-enforcement policy DOE adopts should be designed in a way that garners broad support from a range of stakeholders so that a sudden change in enforcement in the future would be unlikely.

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<sup>2</sup> According to the Air-conditioning Heating and Refrigeration Institute (AHRI), from 2015 to 2018, residential gas and electric storage water heater shipments and commercial gas water heater shipments all increased by an average of less than 1% annually (residential electric storage water heater shipments actually declined over this period). On the other hand, commercial electric storage water heater shipments increased by an average of over 18% annually. AHRI data (<http://ahrinet.org/statistics>) does not differentiate by tank size and thus includes water heaters both above and below 55 gallons.

## Summary

We urge DOE to drop the proposed non-enforcement policy for residential storage water heaters with rated capacity over 55 gallons and to sunset the proposed policy for high-temperature units of 55 gallons or less by January 1, 2021. The proposed policy for units over 55 gallons should be dropped to avoid the multiple adverse consequences of such a policy – higher energy use and energy bills, a patchwork of enforcement actions by states and others, and likely court challenges and the resulting uncertainty for product production and stocking decisions. Likewise, setting a January 2021 sunset date for non-enforcement of the standard for high-temperature units of 55 gallons and less, will save additional energy and will avoid a loophole that some manufacturers may try to exploit in the future.

Sincerely,

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