



**Secretary Jennifer M. Granholm**  
**Secretary of Energy**  
**Office of Energy Efficiency and Renewable Energy**  
U.S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585-0121

**RE: Comments on Notice of Proposed Rulemaking Docket ID No. EERE-2021-BT-STD-0016 - Definition of Showerhead**

Dear Secretary Granholm:

The Alliance for Water Efficiency (“AWE”) and the undersigned XX organizations write to express our strong support for the Department of Energy’s (DOE) proposal to reinstate its past definition of “showerhead,” by revoking the improper definition the agency adopted in December 2020. This definition skirts federal standards, which became law in 1992 and took effect in 1994, that require showerheads to have a maximum flow rate of 2.5 gallons per minute. The 2020 rules allow fixtures with multiple showerheads to meet that standard, which means fixtures with multiple showerheads bypass the standard and can have exorbitant flow rates, consume more energy, and increase customers’ utility bills.

The Energy Policy and Conservation Act (EPCA) specifies a water conservation standard for showerheads: a maximum water use threshold of 2.5 gallons per minute (gpm) for “any showerhead.” 42 U.S.C. § 6295(j). In 2011, DOE made clear its understanding that a multi-nozzle product counts as one “showerhead” that is, as a whole, subject to the 2.5-gpm maximum.

In 2013, DOE adopted a regulatory definition of “showerhead” to mean “[a] component or set of components . . . for attachment to a single supply fitting, for spraying water onto a bather, typically from an overhead position.” 78 Fed. Reg. at 62,973. The 2013 rulemaking explained that this definition comported with DOE’s 2011 understanding. The reinstatement of the 2013 Rule definition of “showerhead” will rightfully restore the successful showerhead water efficiency standard that has been in effect since 1994 and will ensure consistency with the purposes of the EPCA.

**The Proposal to Reinstate the 2013 Rule’s Definition of “Showerhead” is Consistent with EPCA and Commonsense**

**1. The 2020 Rule was unlawful.**

Before the 2020 Rule, DOE had stated clearly that a multiple-nozzle product counts as one “showerhead” for purposes of the 2.5-gpm limit. The 2020 Rule altered the standard, so that each nozzle can flow 2.5 gpm on its own. On its face, that change amended the standard applicable to showerheads, and did so in a way that increased the “maximum allowable water use” of showerheads. The 2020 Rule thus violated EPCA’s “anti-backsliding” rule, 42 U.S.C. § 6295(o)(1).

33 N LaSalle Street  
Suite 2275  
Chicago, IL 60602

OFFICE (773) 360-5100

TOLL-FREE (866) 730-A4WE

FAX (773) 345-3636

[allianceforwaterefficiency.org](http://allianceforwaterefficiency.org)  
[home-water-works.org](http://home-water-works.org)



The 2020 Rule rationalized that DOE had not established the previous interpretation through a standards rulemaking. But the anti-backsliding rule does not require, as a predicate, that there was a previous standards-setting rulemaking. The 2.5-gpm standard was established by Congress, just as EPCA establishes many other initial conservation standards. The law before 2020 was clear. DOE established the pre-2020 status quo in an appropriate way—explaining its interpretation through a guidance document, reiterating that interpretation in the 2013 rulemaking, and confirming it in a regulatory definition. Regardless of whether the process involved a standards-setting rule, the outcome was certain: Until December 2020, a multiple-nozzle product was only allowed to flow 2.5 gpm. DOE is therefore obligated to revoke the 2020 Rule, because that Rule is simply contrary to EPCA and unlawful.

## **2. Reinstating the prior definition is consistent with the purposes of EPCA.**

DOE's proposal to reinstate the definition from the 2013 Rule will better effectuate EPCA's water conservation purposes - to conserve water by improving water efficiency of certain plumbing products and appliances and to improve energy efficiency of major appliances and consumer products. To manage and mitigate the scarcity of water, it is necessary to have policies that foster water conservation, because, to supply growing populations from ever-tighter water sources, we need to reduce per-capita usage. The "showerhead" definition set out in the 2013 Rule will better manage and mitigate the unnecessary waste of water.

As DOE noted in the 2010 Draft Interpretive Rule, its approach that a showerhead is determined to be non-compliant if the standard components, operating in their maximum design flow configuration, taken together use in excess of 2.5 gpm, furthers the goal of EPCA to "conserve water by improving the water efficiency" of showerheads. (See <https://www.regulations.gov/document?D=EERE-2010-BT-NOA-0016-0002>).

## **3. DOE's revised approach to defining "showerhead" sensibly concludes that a showerhead is a showerhead.**

A "showerhead" is simply "a fixture for directing the spray of water in a bathroom shower." *Showerhead*, *Merriam-Webster.com*, <https://www.merriam-webster.com/dictionary/showerhead> (last visited Aug. 16, 2021). This is the ordinary English usage of the term. When you take a shower you expect water to come out through the showerhead, not the showerheads. The definition of "showerhead" in the 2013 Rule appropriately aligns with this understanding. By contrast, the 2020 Rule meant that a person taking a shower from a multi-nozzle product would be using multiple showerheads at once—a concept that is awkward under common, ordinary usage of the word "showerhead." Reasonable interpretations of the term "showerhead" should not produce that uncomfortable usage.

By reinstating the definition set out in the 2013 Rule, DOE affirms that its previous understanding, that EPCA unambiguously subjects a whole showerhead to the 2.5-gpm standard, was correct. As DOE explained in its 2011 guidance, all components that are supplied together and function together to spray water onto a single bather form a single showerhead for purposes of the water conservation standard under EPCA. In the 2013 rulemaking, DOE elaborated: "[A] a system of spraying components that is packaged and/or distributed in commerce as a single 'accessory' or a single set of 'accessories,' designed to be attached to a single fitting, would be defined as a single showerhead." 77 Fed. Reg. 31,742, 31,748 (May 30, 2012). This understanding of what constitutes

a “showerhead” is consistent with how DOE treats products across the board for standards purposes. Objects that are sold as a set together, installed together, and used together constitute a single product from the consumer’s point of view. And the usage of these objects simultaneously for the function of showering demonstrates that the collection of them—the nozzles all together—is the single product known as a “showerhead.”

**4. Withdrawing the definition of “body spray” is consistent with the purposes of the EPCA and will comply with current ASME A112.18.1/CSA B125.1 standards.**

AWE further supports DOE’s proposed withdrawal of the definition of “body spray.” The 2020 Rule excluded “body spray” from the water conservation standard, and thus these products can flow at any flow rate. That exclusion is inconsistent with the express purpose of the EPCA to conserve water by improving the water efficiency of certain plumbing products and appliances. Allowing these products to remain unregulated can lead to wasteful and unnecessary “deluge” showers, which also consume much more hot water. The exclusion was also inconsistent with the ordinary understanding of the statutory term “showerhead.” A body spray is a component or set of components that is used to spray water onto a bather, in a shower, for all the same purposes that a ceiling-mounted showerhead is used. Nothing in the term “showerhead” denotes that a showerhead must spray water from over the top of the bather. Nothing in the purpose of the EPCA conservation standard supports an exclusion based on the direction from which the water is sprayed onto the bather. And the body spray exclusion constitutes a significant loophole, allowing a product to be sold, installed, and used with water flow far in excess of the statutory standard, just because the water approaches the bather from a different angle.

**5. AWE supports DOE’s proposal to retain the current definition of “safety shower showerhead.”**

The current definition for “safety shower showerhead” was established in the December 2020 Final Rule and is particularly useful because this class of showerheads is excluded from standards under EPCA. The rule appropriately aligns the definition with ANSI standard Z358.1.

**The 2020 Rule Wastes Water and Energy and Undermines Water Reliability and Affordability**

**6. The 2020 Rule jeopardizes water reliability and increases utility costs.**

The U.S. is already experiencing serious water shortages, as documented in a US Government Accountability Office Report, and the Current Rule only serves to increase the consumption of drinking water that will have severe impacts on water supplies across the country. AS AWE set out in its comments on Docket ID No. EERE-2020-BT-TP-0002, the Current Rule allows multiple shower head systems to increase flows from the previous 2.5 gpm to 5.0 gpm or more, which could increase residential water consumption upwards of 160 billion gallons annually.<sup>1</sup>

---

<sup>1</sup> Mitchell D. (June 2020) Showerhead Water & Energy Savings. M. Cubed. Oakland, CA. Available from AWE.

Utilities in many states are already confronting serious water shortages.<sup>2</sup> The pressure on water utilities will continue to grow, due to population increases in areas like the west where water is scarce, and climate change, which is causing long-term declines in rainfall in many regions. The increased consumption of treated drinking water as a result of the Current Rule will ultimately increase water utility costs as it becomes necessary to provide new water supplies, and therefore may increase customer bills, as the costs for procuring needed new water supplies is passed on to consumers.

As AWE noted in its comments on Docket ID No. EERE-2020-BT-TP-0002, every 1 gpm of increased flow in a shower has a huge impact on national water and energy demands, with the national annual domestic water use increasing by 55 billion gallons.

### **7. The water savings under the prior definition are critical for the nation.**

AWE previously demonstrated to DOE, in its comments on Docket ID No. EERE-2020-BT-TP-0002, the significant water and energy savings from the existing definition of “showerhead.”<sup>[1]</sup> For years, 2.5 gpm showerheads have replaced older, high-flow showerheads in existing homes and buildings while also being used in new construction, providing 11 billion gallons per year in water savings and 5 trillion Btu per year in energy savings in the U.S. Given that some people will purchase ultra-efficient showerheads (< 1.6 gpm), the savings are likely to be ever more. The cumulative savings over ten years from 2.5 gpm showerheads could supply up to 1 million homes with water and 670,000 homes with energy for a year, assuming average annual water and energy consumption for a typical US household. These are significant savings that could be diminished going forward without reinstatement of the 2013 rule.

### **8. The 2020 Rule undermines the affordability of water and energy.**

Increased water flow in showers also increases energy consumption, both to heat the water and to produce the clean water.

AWE previously highlighted to DOE in its comments on Docket ID No. EERE-2020-BT-TP-0002, that the Current Rule could increase annual energy consumption by 25 trillion BTUs for each gpm increase in shower flow rate,<sup>3</sup> and together with the increased annual domestic water use, could increase annual water and energy bills for American consumers by an estimated \$1.14 billion.<sup>4</sup> These amounts represent just what showerhead users will pay. The societal costs can be even greater. The consumption of fossil fuels—a staple in the nation’s energy diet—inevitably produces pollutants such as particulate matter and carbon dioxide.

## **Conclusion**

---

<sup>2</sup> Freshwater Supply Concerns Continue, and Uncertainties Complicate Planning.” US Government Accountability Office Report (May 2014), [www.gao.gov/assets/670/663343.pdf](http://www.gao.gov/assets/670/663343.pdf)

<sup>[1]</sup> DeOreo, W., P. Mayer, et. al. 2016. Residential End Uses of Water, Version 2. Water Research Foundation. Denver, CO.

<sup>3</sup> Mitchell D. (June 2020) Showerhead Water & Energy Savings. M. Cubed. Oakland, CA. Available from AWE.

<sup>4</sup> Mayer, Peter. Memo to AWE on the Costs of 1 gpm Increase in Shower Flow. Available from AWE.

AWE supports DOE's proposal to revise the current definition of "showerhead" as adopted in the Current Rule and reinstate the prior definition of "showerhead" as set out in the 2013 Rule, and commends DOE for its efforts to ensure consistency with the purposes of the EPCA and to foster water and energy conservation.

Sincerely,

XXX

Due Date: Sept 20, 2021

Submitted using the Federal eRulemaking Portal: <https://www.regulations.gov>.