

U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC. 20585

Comment on the Delay in Adopting Energy Conservation Program: Energy Conservation Standards for Consumer Gas-Fired Instantaneous Water Heaters
Docket EERE-2017-BT-STD-0019
March 13, 2025

To Whom It May Concern,

I am writing to express my concern about the delay in implementing the final rule to amend the energy conservation standards for gas-fired instantaneous water heaters, as published in the Federal Register on December 26, 2024. Although the Department of Energy (DOE) is temporarily postponing the effective date, I want to highlight the significant benefits the proposed energy efficiency standards will have on energy conservation, emission reductions, and public health, particularly compared to the current standards.

The December 2024 final rule proposes important amendments to the energy conservation standards for gas-fired instantaneous water heaters that will dramatically improve energy efficiency over the current regulatory framework. The new standards are designed to increase the minimum efficiency levels for certain product classes, specifically those with less than 2 gallons of storage volume and input ratings greater than 50,000 Btu/h. These standards represent an increase in the overall performance and efficiency of these units, requiring them to use less energy to perform the same function. This reduction in energy consumption is critical to curbing overall demand for energy, thus contributing to both immediate and long-term reductions in greenhouse gas (GHG) emissions, including carbon dioxide (CO₂) and methane (CH₄).

In particular, DOE's analysis underscores how these new standards will deliver measurable reductions in power sector emissions. By improving the energy efficiency of gas-fired instantaneous water heaters, the standards will reduce the demand for electricity generation, particularly from fossil-fuel-based power plants. Lower energy demand translates into reduced CO₂ emissions from power plants, which are a primary source of GHGs contributing to climate change, which endangers health. In fact, DOE has projected a decrease in CO₂ emissions over the lifetime of the affected products due to reduced energy consumption. This reduction in electricity demand will also lead to a decrease in the emissions of air pollutants such as nitrogen oxides (NO_x), sulfur dioxide (SO₂), and fine particulate matter (PM_{2.5}), which are associated with respiratory issues and other health harms.

Furthermore, the transition from the existing Energy Factor (EF) rating system to the more accurate and consistent Uniform Energy Factor (UEF) metric will help standardize how efficiency is measured across the industry. This change will ensure that energy savings are more accurately calculated and will provide consumers with clearer information on the relative

efficiency of different products, empowering them to make choices that prioritize both energy and cost savings. For manufacturers, these updated standards will drive innovation, encouraging the development of higher-efficiency models that deliver even greater environmental benefits.

The impact of these changes will be far-reaching. The updated standards are estimated to result in a substantial reduction in energy consumption across the country, with projections showing that these efficiency improvements will contribute to a lower national energy demand. This, in turn, will help enhance the security and reliability of the nation's energy system by reducing the strain on power grids, especially during peak usage times.

In addition to the direct environmental and energy savings, the proposed standards will also provide economic benefits. By improving the energy efficiency of these appliances, households and businesses will experience lower operating costs over the lifetime of the product. The energy savings alone will make these products more cost-effective for consumers, who will benefit from reduced utility bills and improved long-term performance.

Importantly, the reduction in harmful air pollutants, such as NO_x and SO_2 , will have substantial public health benefits. These pollutants contribute to the formation of ground-level ozone and particulate matter, both of which are associated with respiratory and cardiovascular diseases. By decreasing electricity demand and lowering emissions from power generation, the proposed standards will help improve air quality, leading to better public health outcomes.

Reducing Air Pollutants and Improving Lung Health

The proposed efficiency standards will lower energy consumption for heating water, which in turn reduces the need for electricity from fossil fuel-fired power plants. This reduction in energy demand will decrease emissions of NO_x and SO_2 , two pollutants that are particularly harmful to lung health.

NO_x contributes to the formation of ground-level ozone, a major component of smog. Ozone exposure can cause significant respiratory problems, especially for vulnerable groups such as children, the elderly, and those with pre-existing lung conditions. Elevated ozone levels can trigger asthma attacks, worsen bronchitis, and lead to long-term lung damage. By reducing electricity demand, the new standards will lower NO_x emissions and, consequently, reduce ozone levels, decreasing the risks associated with poor air quality.

SO_2 , another harmful pollutant, is a major contributor to acid rain and respiratory issues. Exposure to SO_2 can irritate the airways, leading to coughing, inflammation, and shortness of breath, and can worsen conditions like asthma and bronchitis. The proposed standards will reduce SO_2 emissions from power plants, helping to alleviate these respiratory problems and improve overall lung health.

In addition to NO_x and SO₂, the energy efficiency standards will help lower emissions of fine particulate matter (PM_{2.5}) from power plants. PM_{2.5} consists of tiny particles that can penetrate deep into the lungs, exacerbating chronic respiratory diseases such as asthma and COPD, and even causing lung cancer. Exposure to PM_{2.5} is linked to serious health issues, including heart disease and strokes. By reducing energy consumption and decreasing fossil fuel-based electricity generation, the new standards will help lower PM_{2.5} emissions and reduce their harmful impact on public health.

The proposed standards will lead to cleaner air and better health outcomes. Reducing emissions helps reduce asthma attacks, respiratory infections, and other health harms. It means lowering healthcare costs and improving the quality of life for millions of Americans.

Improving air quality will also reduce emergency room visits, hospitalizations, and school and work absenteeism due to illness, resulting in both direct healthcare savings and broader societal benefits, including improved productivity.

Enhancing Public Health through Energy Efficiency

Energy efficiency improvements, such as those proposed for gas-fired instantaneous water heaters, have a profound positive impact on public health, particularly by reducing exposure to pollutants that contribute to respiratory issues and other health harms. The proposed standards align with broader efforts to promote clean energy solutions that reduce environmental impacts while improving public health outcomes. The energy savings and emissions reductions achieved through these standards will ultimately create a cleaner, healthier environment for all, especially for those with lung conditions.

In conclusion, the proposed amendments to the energy conservation standards for gas-fired instantaneous water heaters will lead to energy savings, emission reductions, and economic benefits for consumers and businesses. Delaying these crucial standards will only prolong the environmental and health risks associated with inefficient energy consumption. I urge DOE to implement these standards as originally finalized without further delay.

Sincerely,

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