



## State Appliance Efficiency Standards Focus on: Air Purifiers

Air purifiers (or room air cleaners) are portable units that remove fine particles, such as dust or pollen, and even unpleasant odors from indoor air. According to Consumer Reports, air purifiers are a growing product category for consumers, but the worst products may not be worth the investment due to high operating costs and poor performance. In fact, typical air purifiers that do not meet the ENERGY STAR specification use more than 500 kWh per year on average, equivalent to the annual energy consumption of an average new refrigerator.

### Appliance standards are the best energy policy you've never heard of

Many of the products in our homes and businesses are covered by appliance standards that limit energy and/or water waste. Appliance standards can cover any energy- or water-using device, including home appliances, plumbing products, lighting products, and commercial and industrial equipment. In general, states can set standards for any products that are not subject to national standards. State standards are set by legislatures or state agencies and apply to products sold or installed in a state.

## Proposed air purifier standard will cut energy waste by 40%

Air purifiers that meet the proposed efficiency levels save about 40% relative to baseline products. The average lifetime of an air purifier is 9 years, and the average per-unit annual savings are about 200 kWh. That means nearly 2,000 kWh of electricity can be saved over the lifetime of an air purifier by switching from a baseline product to an ENERGY STAR-qualified product which would meet the proposed standard.

## Consumers would benefit from the standard

The proposed standard would weed out the most inefficient air purifiers. Consumers on average would save about \$30 a year with a payback period of 2.6 years, well within the typical 9-year life of an air purifier.

If enough states adopted an air purifier standard such that only compliant products were sold nationally, by 2025 annual electricity savings would reach 1.5 billion kWh and consumers would save \$229 million on their annual electricity bills. The projected annual electricity savings in 2025 would be equivalent to the annual electricity use of about 130,000 US households. Carbon dioxide emissions would be reduced by about 600,000 metric tons in 2025, which is equivalent to the emissions from about 127,000 cars in one year.

### Savings

Consumers save about \$30 a year on utility bills

Annual electricity savings by 2025 are enough to power about 130,000 households for a year

Annual emissions reductions equivalent to the emissions from more than 127,000 cars in one year

#### Energy

**1.5**

Billion kWh  
Annually by 2025

#### Money

**229**

Million \$\$  
Annually by 2025

#### Emissions

**600,000**

Metric tons CO<sub>2</sub>  
Annually by 2025

## The standard is based on well-researched efficiency levels

The proposed standard for air purifiers is based on the current ENERGY STAR specification, which has been in effect since 2004.

## Efficient models are readily available now

As of 2018, 69% of air purifier models certified through the Association of Home Appliance Manufacturers (AHAM) Certification Program were ENERGY STAR-certified. An internet search in 2018 showed 28 ENERGY STAR-certified models selling for less than \$100 at Best Buy, Home Depot, Lowe's, Sears, and Walmart.

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