



## State Appliance Efficiency Standards Focus on: Computers and Monitors

Computers and monitors are an integral part of everyday life, with roughly 420 million found in offices, schools and homes in the U.S., and more sold every day. While there is a voluntary ENERGY STAR specification for computers and monitors, there is no mandatory national minimum energy efficiency standard.

### 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 standard will cut energy wasted by computers and monitors

Desktop computers typically use about four times as much energy as laptop or notebook computers. Most people don't think about the energy used by computers that are in "idle" mode - turned on but not being used. However idle-mode energy use is significant, especially in desktop computers. An efficiency standard would mean that computers consume less energy in idle mode and during active use but still perform just as well. A standard for monitors would set minimum efficiency requirements depending upon screen size and resolution, while preserving performance and consumer choice.

## The standard is already adopted in other states

California established the first efficiency standard for computers and monitors in 2016. Colorado, Hawaii, Washington and Vermont adopted the California standard.

## Efficient models are readily available now

As of 2016, 73 percent of laptop computers, 17 percent of desktop computers, and 14 percent of monitors already met the efficiency levels for the proposed standards. Desktop computers account for the largest share of the savings because they use the most energy and lag behind laptops in terms of energy efficiency. Manufacturers can easily improve the energy efficiency of desktop computers by incorporating technologies they already deploy in laptops. Meanwhile the standard will improve the efficiency of the worst-performing laptops on the market.

### Savings

Consumers would save \$695 million annually on their electricity bills

Annual electricity savings by 2025 are enough to power about 480,000 households for a year

Annual emissions reductions equivalent to the emissions from more than 460,000 cars in one year

### Energy

**5.7**

Billion kWh saved  
Annually by 2025

### Money

**695**

Million \$ saved  
Annually by 2025

### Emissions

**2.2 million**

Metric tons CO2 saved  
Annually by 2025

## Consumers will benefit from the standard

The small cost to make computers and monitors compliant with the proposed state standard would be recouped through energy savings in two years, well within the life span of the equipment.

If enough states adopted the computer standard such that only compliant products were sold nationally, by 2025 annual electricity savings would reach 5.7 billion kWh – enough to power about 480,000 households for a year – and consumers would save \$695 million annually on their electricity bills, growing to \$1.2 billion in 2035. Carbon dioxide emissions would be reduced by about 2.2 million metric tons in 2025, which is equivalent to the emissions from more than 465,000 cars in one year.

### Industry helped develop and supports the California computer standard

The tech industry was instrumental in helping to develop the California standard. Rick Goss, Senior Vice President for Environment and Sustainability for the Information Technology Institute, said: "By collaborating, we've established an ambitious and achievable standard reducing computer idle power by 50% over the next five years, while still enabling the tech industry's innovation that is driving our economy."

Some industry trade organizations have expressed concern that manufacturers will face a patchwork of state regulations. Fortunately, the four states that adopted computer standards - Colorado, Hawaii, Vermont, and Washington – have copied the California standards, including a provision to update the standards as needed to align with updated California standards.

