ASAP | APPLIANCE STANDARDS AWARENESS PROJECT

State Appliance Efficiency Standards Focus on: Uninterruptible power supplies

Uninterruptible power supplies (UPS) are used in offices, hospitals, datacenters, homes or anywhere that digital electronic devices serve a critical function. UPS are battery backup systems that operate continuously, ready to kick in automatically to keep electronics running when the power goes out or falters

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 UPS standard will cut energy waste by 30%

These low-profile devices are usually kept out-of-sight under desks or in closets. Many of the more than 10 million that are shipped each year to homes and businesses are not very efficient. UPS that meet the proposed efficiency levels save about 30 percent relative to products that do not and perform all the same functions.

The standard is based on well-researched efficiency levels

The standard is the same as the UPS energy efficiency standard that the Department of Energy (DOE) completed in December 2016 but never officially published. Like all new appliance efficiency rules, the rule was subject to a 45-day waiting period for review and correction of potential errors. No errors were found but the 45-day period carried over into the Trump administration and the standard remains unpublished and in limbo. Several such standards are currently the subject of a lawsuit against DOE which, if successful, would require DOE to publish the standard.

UPS are covered by the California and Oregon battery charger standards. The Vermont legislature adopted this standard in May 2018, with a compliance date of July 1, 2020.

Savings

Consumers save $12-$36 over life of product.

Annual electricity savings by 2025 are enough to power about 120,000 households for a year

Annual emissions reductions equivalent to the emissions from more than 600,000 cars in one year

Energy	Money	Emissions
1.4	175	600,000
Billion kWh Annually by 2025	Million $$ Annually by 2025	Metric tons CO_2 Annually by 2025

Consumers and businesses will benefit from the standards

According to DOE, consumers will save between $12 and $36 over the 5-10-year lifetime of the product.[1] If enough states adopted the UPS standard such that only compliant products were sold nationally, by 2025 annual electricity savings would reach 1.4 billion kWh – enough to power about 120,000 households for a year – and consumers would save $175 million annually on their annual electricity bills. Carbon dioxide emissions would be reduced by about 600,000 metric tons in 2025, which is equivalent to the emissions from about 125,000 cars in one year.

Efficient models are readily available now

More than 50% of the UPS shipped each year in the US already meet the standard level. Manufacturers with products that do not already meet the standard level can comply by applying readily available technology. DOE identified a variety of technology options that manufacturers may use to improve the efficiency of their UPS, including more efficient semi-conductor materials and electronic components, digital signal processing, and variable speed cooling fans. "Transformer-less" UPS are also becoming more popular and offer both higher energy efficiencies and smaller footprints. The standards are performance-based, giving UPS manufacturers the flexibility to innovate and improve their products in the ways that are most cost-effective and make the most sense for them.

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[1] https://www.regulations.gov/docket?D=EERE-2016-BT-STD-0022