

Energy Efficiency Standards for Light Bulbs

July 2024

Light bulb efficiency standards ensure that new bulbs for sale do not needlessly waste energy. Today's LED bulbs save consumers money, have long lifespans, and can provide great lighting at a broad range of hues.

Energy efficiency standards for light bulbs lower energy costs for households and businesses and reduce climate pollution.

Congress established the first national light bulb standards in a bipartisan law signed by President George W. Bush in 2007 and directed the U.S. Department of Energy (DOE) to periodically strengthen them.

The standards unleashed innovation, leading to the low-cost, high-quality LEDs now widely available. Using at least 75% less energy than incandescents and lasting [far](#) longer, LEDs quickly pay off any increase in upfront costs and save consumers money.

“The best LED bulbs offer long life and efficiency, plus a look that matches that of a traditional incandescent,” says [Wirecutter](#).

Today's LEDs look good and meet a wide range of preferences

With LED bulbs available in a broad range of shapes, sizes, and hues—including smart bulbs that can be adjusted through apps—consumers today have more options than ever. Independent testing by [CNET](#) and by [Wirecutter](#) has found that today's LEDs can provide attractive lighting for a variety of uses.

“With so many choices available, the notion that the phase-out of incandescents is taking warm, cozy lighting with it is a complete myth at this point,” CNET has found. Wirecutter says “everything in a home looks great under the light” of its top-rated bulb.

Trump action flouted the law and allowed wasteful bulbs

In 2019, DOE under President Donald Trump announced that [it would block](#) updated light bulb standards mandated by Congress in its 2007 law from taking effect in 2020. Each month that the standards were delayed permitted continued sales of inefficient bulbs that over their lifetime cost consumers [nearly \\$300 million](#) in energy bills and caused 800,000 tons of preventable carbon dioxide emissions, according to ASAP estimates.

DOE undid the Trump-era action in 2022, ramping up enforcement until requiring full compliance in August 2023. These standards effectively phased out most incandescents and ensured that common bulbs meet an efficiency level easily achieved by LEDs.



Further improvements will take effect in 2028—and save consumers money

New [standards](#) DOE finalized this spring will make LED bulbs even more efficient and, the department estimates, save a typical household with 50 light bulbs about \$50 each year on their electricity bills.

The standards will require common light bulbs—nearly all now LEDs—to achieve the efficiency levels of today’s top-performing models. A common “60-watt equivalent” bulb—one that produces the same amount of light as an incandescent bulb using 60 watts—will need to use no more than 6.5 watts. Many LED bulbs today use 8 to 10 watts, while compact fluorescents—which are now rarely sold—often use about 13 watts. Manufacturers largely supported the new standards.



For more information, please contact Madeline Parker at mparker@standardsasap.org