

The New York Times

<https://www.nytimes.com/2019/09/04/climate/trump-light-bulb-rollback.html>

White House to Relax Energy Efficiency Rules for Light Bulbs



Congress passed legislation in 2007 to phase out inefficient incandescent and halogen bulbs.
Image: Alex Wroblewski for The New York Times

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Published Sept. 4, 2019

The Trump administration plans to significantly weaken federal rules that would have forced Americans to use much more energy-efficient light bulbs, a move that could contribute to greenhouse gas emissions that cause global warming.

The proposed changes would eliminate requirements that effectively meant that most light bulbs sold in the United States — not only the familiar, pear-shaped ones, but several other styles as well — must be either LEDs or fluorescent to meet new efficiency standards.

The rules being weakened, which dated from 2007 and the administration of President George W. Bush and slated to start in the new year, would have all but ended the era of the incandescent bulb invented more than a century ago. Eliminating inefficient bulbs nationwide would save electricity equivalent to the output of at least 25 large power plants, enough to power all homes in New Jersey and Pennsylvania, according to an estimate by the Natural Resources Defense Council.

The Trump administration said the changes would benefit consumers by keeping prices low and eliminating government regulation.

“The Energy Department flat out got it wrong today,” said Jason Hartke, president of the Alliance to Save Energy, a nonprofit coalition of business and environmental groups. Calling the move an “unforced error,” he said, “Wasting energy with inefficient light bulbs isn’t just costly for homes and businesses, it’s terrible for our climate.”

The actions are the latest by the Trump administration to weaken a broad array of rules designed to fight climate change. Last week it announced a far-reaching plan to cut back on the regulation of emissions of methane, a powerful greenhouse gas. Earlier this year it proposed freezing antipollution and fuel-efficiency standards for cars, and tried to replace the Clean Power Plan, a signature emissions-reduction measure of the Obama administration.

President Trump has repeatedly dismissed the scientific consensus that climate change is caused by human activity and requires urgent action to avoid its most dire effects, even as government scientists have warned about the damage that global warming is already causing the United States’ economy.

Shaylyn Hynes, a spokeswoman for the Department of Energy, said the 2007 law requires the department to issue standards “only when doing so would be economically justified. These standards are not.” She added that the administration’s action “will ensure that the choice of how to light homes and businesses is left to the American people, not the federal government.”

The trade association for companies that make light bulbs applauded the Energy Department’s decision. In a statement, the National Electrical Manufacturers Association said Americans are already buying the more efficient bulbs and the final rule “will not impact the market’s continuing, rapid adoption of energy-saving lighting.”

The group estimates that by the end of 2019, as much as 84 percent of “general purpose” light sockets will be filled by LED and compact fluorescent bulbs.

Rapid technological change in the lowly light bulb has been one of the largely unsung success stories in the fight to reduce energy use and greenhouse gas emissions.

Energy consumption in American homes had been on the rise for decades. But that has reversed significantly in recent years, thanks in part to the growing acceptance of technologies like LED bulbs and compact fluorescents. Since 2010, energy consumption in American homes has dropped by 6 percent, according to Lucas Davis, an energy economist at the Haas School of Business, which is part of the University of California, Berkeley. [See reference below.]

In 2007, Congress passed legislation to phase out inefficient incandescent and halogen bulbs. As part of that process, the oldest incandescent technology had already disappeared from standard pear-shaped bulbs by 2014 in favor of “halogen incandescents,” which look the same but use less power.

Around that time, some conservative lawmakers and commentators turned the transition into a partisan dispute during the Obama administration, warning that the Democratic administration would force people to buy inferior bulbs. More recently, though, that notion of a partisan divide has faded, Professor Davis said. “LEDs are being sold in large volumes in all 50 states,” he said, not just blue states.

LED bulbs show how seemingly modest shifts in technology can have a profound effect on people’s lives and wallets.

Because of their long life and energy efficiency, an LED bulb can save consumers an estimated \$50 to \$100 over its several-year lifetime, while reducing the number of times a year they need to climb a stepladder or kitchen table to replace burnt-out bulbs. LED bulbs, once many times more expensive than incandescent bulbs, have plunged in price and can often be found for less than \$2 each.

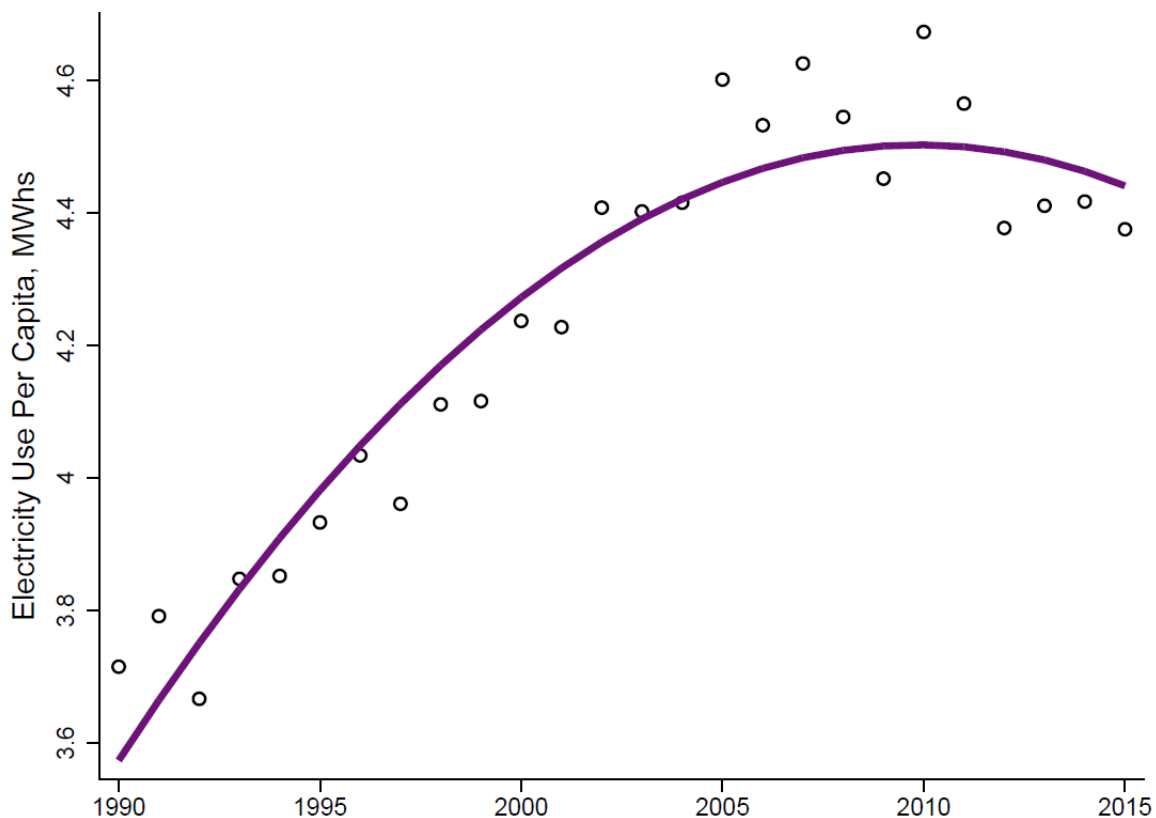
<https://thehill.com/blogs/blog-briefing-room/news/460630-trump-defends-lightbulb-efficiency-rollback-i-look-better-under/> 09/09/19

“I’m not a vain person. ... But I look better under an incandescent light,” Trump told a crowd in Fayetteville, N.C., on Monday.

Davis, Lucas. "Evidence of a Decline in Electricity Use by U.S. Households" *Energy Institute Blog*, UC Berkeley, May 8, 2017, <https://energyathaas.wordpress.com/2017/05/08/evidence-of-a-decline-in-electricity-use-by-u-s-households/>

Americans tend to use more and more of everything. As incomes have risen, we buy more food, live in larger homes, travel more, spend more on health care, and, yes, use more energy. Between 1950 and 2010, U.S. residential electricity consumption per capita increased 10-fold, an annual increase of 4% per year.

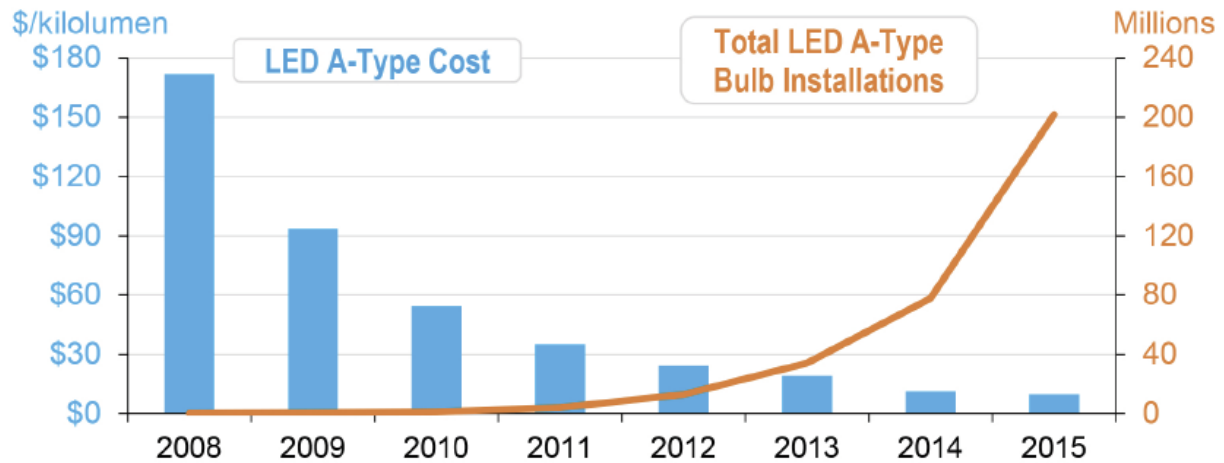
But that electricity trend has changed recently. American households use less electricity than they did five years ago. The figure below plots U.S. residential electricity consumption per capita 1990-2015.



Source: Constructed by Lucas Davis at UC Berkeley using residential electricity consumption from [EIA](#), and population statistics from the [U.S. Census Bureau](#).

So what is different? Energy-efficient lighting. Over 450 million LEDs have been installed to date in the United States, up from less than half a million in 2009, and nearly 70% of Americans have purchased at least one LED bulb. Compact fluorescent lightbulbs (CFLs) are even more common, with 70%+ of households owning some CFLs. All told, energy-efficient lighting now accounts for 80% of all U.S. lighting sales.

It is no surprise that LEDs have become so popular. LED prices have fallen 94% since 2008, and a 60-watt equivalent LED lightbulb can now be purchased for about \$2. LEDs use 85% less electricity than incandescent bulbs, are much more durable, and work in a wide-range of indoor and outdoor settings.



Source: Energy.Gov, "[Revolution...Now](#)", September 2016.

Is this really big enough to matter? Yes! Suppose that between LEDs and CFLs there are now one billion energy-efficient lightbulbs installed in U.S. homes. If operated 3 hours per day, this implies savings of 50 million megawatt hours per year, or 0.16 megawatt hours per capita, about the size of the decrease above. Thus, a simple back-of-the-envelope bottom-up calculation yields a similar decrease to the decline visible in aggregate data.