



FACT SHEET

THE \$2 TRILLION SUCCESS STORY: ENERGY EFFICIENCY STANDARDS

Ever since President Ronald Reagan established an efficiency standards program under the aegis of the U.S. Department of Energy (DOE) in 1987, national energy efficiency standards for appliances and equipment have saved American homes and businesses nearly \$2 trillion on utility bills. It's impossible to know just from looking at appliances and equipment whether they are energy hogs, and standards help ensure a minimum level of efficiency. They also cut energy waste, create jobs, encourage innovation, help U.S. manufacturers remain competitive, and reduce pollution. Energy efficiency standards are among the nation's most successful energy policies and have earned well-deserved bipartisan support. They also are required by law to be established and updated on a regular basis.

THREATS

In spite of the many benefits, efficiency standards face unprecedented threats. President Trump's January 30, 2017, executive order¹ states that for every new standard or regulation a federal agency establishes to defend our families, workers, and communities from harm, at least two existing measures must be scrapped, regardless of the benefits they provide. The order jeopardizes the decades-old efficiency standards program by arbitrarily limiting opportunities for significant energy savings.

Meanwhile, due to separate requirements that must be met before a standard becomes law, other energy efficiency standards issued in the final days of the Obama administration could be at risk. These include the first national standards for swimming pool pumps, portable air conditioners, and uninterruptible power supplies.

Threats by the Trump administration and GOP-controlled Congress to radically scale back the Environmental Protection Agency could jeopardize ENERGY STAR[®], a world-renowned voluntary program that identifies energy efficient products. It has helped consumers save \$362 billion on their utility bills² since 1992 while reducing climate-altering pollution.

CONSUMERS SAVE BIG

Just about every household, business, and industry in America has benefited from energy efficiency standards. They set minimum energy performance levels for more than 60 products ranging from residential refrigerators and hot water heaters to commercial and industrial equipment like boilers and motors. A typical U.S. household saves about \$500 on energy bills every year thanks to efficiency standards.³

One of the reasons the DOE efficiency standards program works so well is that standards are required to be cost-effective for consumers. Each standard must result in a cost savings above and beyond the product cost over its lifetime. An LED lightbulb, for example, pays for itself through lower energy bills in about a year (and produces dividends throughout its lifetime, which can be 25 years). Many products meet standards without costing consumers a penny more upfront. A study of nine appliance standards found that retail prices actually decreased by \$12 on average, even when the DOE anticipated small price increases.⁴

Polls repeatedly show that the majority of Americans support energy efficiency.^{5,6} In a 2016 postelection survey, 76 percent of Trump supporters said they back policies that require manufacturers to make appliances more energy efficient.⁷

The savings reach all segments of the economy, including low-income households. These households are more likely to be renters and are often responsible for paying utility bills even though they have little control over the appliances installed in

their homes. Efficiency standards guarantee that when a landlord replaces an ancient fridge or washing machine, the new model will save tenants money. As low-income families often spend a larger percentage of their income on energy bills than other consumers do—three times as much as higher-income families—these savings provide important relief.⁸

MANUFACTURERS INNOVATE AND STAY COMPETITIVE

Many standards are developed by the DOE in conjunction with manufacturers, who recognize the benefits they can reap from meeting national standards. Manufacturers much prefer a single federal standard to a patchwork of requirements that vary by state. American manufacturers also appreciate that since the standards apply to all products regardless of where they're made, they won't be undercut by foreign competitors selling cheap, inferior products. The DOE's standards enforcement division ensures that noncompliant products stay out of the U.S. market, protecting manufacturers and consumers.

Efficiency standards have spurred tremendous innovation in manufacturing because they're technology-neutral. Manufacturers can meet standards through whatever innovative means they prefer. The result is better products for consumers. Today's typical new refrigerator uses one-quarter of the energy a typical fridge did in 1973, while offering 20 percent more storage capacity and selling at half the retail cost. Since 1990, thanks to standards, new clothes washers use 70 percent less energy; new dishwashers, 40 percent less; and new air conditioners, 50 percent less.⁹

HUNDREDS OF THOUSANDS OF JOBS FOR AMERICAN WORKERS

Efficiency standards are and will continue to be important job creators in every state. Standards generated about 340,000 jobs by the end of 2010 and could create approximately 100,000 more by 2030, according to one analysis.¹⁰ The 2017 U.S. Energy and Employment Report shows there are more than 2.2 million U.S. jobs in the energy efficiency sector.¹¹ These include manufacturing energy-efficient appliances, as well as jobs in HVAC, lighting, installation, and engineering. And jobs that require workers in America to install and service energy-efficient appliances and equipment cannot be outsourced. One example of a manufacturer that has greatly benefited from standards is Cree Inc., one of the top-selling brands of LED lighting products. Cree employs more than 3,000 people in its North Carolina and Wisconsin plants and offices. The national efficiency standards have helped the company's LED lightbulbs become very competitive in the marketplace.

BROAD HEALTH AND ECONOMIC BENEFITS

By reducing the need for electricity, energy efficiency standards help cut carbon pollution from power plants (3 billion tons of avoided emissions since the standards program began).¹² They also reduce emissions of nitrogen oxides, sulfur dioxide, and mercury—pollutants that can worsen asthma and allergy symptoms, affect the nervous system, increase the risk of heart attacks, and lead to premature deaths.¹³ Cutting power plant pollution provides major health and environmental benefits for millions of Americans.

There's a broader economic benefit to reducing electricity use as well. Smarter energy use by consumers means utilities do not need to build as many costly power plants or install additional infrastructure like poles and transmission wires. These costs are typically passed on to consumers in the form of higher electricity rates.

Federal energy efficiency standards have a strong track record of success. They have been quietly saving billions of dollars every year for millions of Americans, creating jobs, providing a boost for U.S. manufacturers, and reducing air and climate-changing pollution. With continued bipartisan support, energy efficiency standards can provide benefits for decades to come.

ENDNOTES

1 The White House, "Presidential Executive Order on Reducing Regulation and Controlling Regulatory Costs," January 30, 2017, <https://www.whitehouse.gov/the-pressoffice/2017/01/30/presidential-executive-order-reducing-regulation-and-controlling>.

2 U.S. Environmental Protection Agency, "Energy Star Collaboration Aims to Increase Sales of Energy Efficient Products" [Press Release], October 24, 2016, <https://www.epa.gov/newsreleases/energy-star-collaboration-aims-increase-sales-energy-efficient-products>.

3 Appliance Standards Awareness Project, "Appliance Standards Questions and Answers," 2017, http://www.appliance-standards.org/sites/default/files/Why_National_Appliance_Standards%202017_0.pdf.

4 Steve Nadel and Andrew DeLaski, "Appliance Standards: Comparing Predicted and Observed Prices," American Council for an Energy-Efficient Economy (hereinafter ACEEE) and the Appliance Standards Awareness Project, July 2013, <http://aceee.org/research-report/e13d>.

5 Sheryl Carter, "Energy Efficiency Is Fueling the Economy, Growing Jobs," Natural Resources Defense Council (hereinafter NRDC), Expert Blog, December 19, 2016, <https://www.nrdc.org/experts/sheryl-carter/energy-efficiency-fueling-economy-growing-jobs>.

6 Hart Research, "Americans' Views on Federal Fossil Fuel Policy and Clean Energy," memo to NRDC and League of Conservation Voters, October 5, 2016, <https://www.nrdc.org/sites/default/files/views-on-fossil-fuel-policy-clean-energy-summary.pdf>.

7 Glover Park Group, "Survey of Trump Voters December 2016," <http://www.slideshare.net/GloverParkGroup/gpg-survey-of-trump-voters-december-2016>.

8 Ariel Drehobl and Lauren Ross, "Lifting the High Energy Burden in America's Largest Cities," Energy Efficiency for All and ACEEE, April 2016, http://energyefficiencyforall.org/sites/default/files/Lifting%20the%20High%20Energy%20Burden_0.pdf.

9 U.S. Department of Energy (hereinafter DOE), "Saving Energy and Money with Appliance and Equipment Standards in the United States," updated January 2016, https://energy.gov/sites/prod/files/2017/01/f34/Appliance%20and%20Equipment%20Standards%20Fact%20Sheet-011917_0.pdf.

10 Rachel Gold et al. "Appliance and Equipment Efficiency Standards: A Money-maker and Job Creator," ACEEE, January 26, 2011.

11 DOE, "U.S. Energy and Employment Report," January 2017, https://energy.gov/sites/prod/files/2017/01/f34/2017%20US%20Energy%20and%20Jobs%20Report_0.pdf.

12 DOE, "Saving Money and Energy with Appliance and Equipment Standards in the United States," updated October 2016, <http://energy.gov/sites/prod/files/2016/10/f33/Appliance%20and%20Equipment%20Standards%20Fact%20Sheet-101416.pdf>.

13 Diane Bailey, "Gasping for Air: Toxic Pollutants Continue to Make Millions Sick and Shorten Lives," NRDC, July 2011, <http://www.nrdc.org/health/files/airpollutionhealthimpacts.pdf> (accessed October 20, 2014).