



FACT SHEET

# BATTERY CHARGER STANDARDS: SAVING ENERGY & MONEY

The U.S. Department of Energy recently finalized energy efficiency standards for battery chargers, which will save energy, reduce consumer and businesses' energy bills by tens of millions of dollars annually, and help limit global warming, without reducing the ability of this equipment to power our mobile lifestyles and job sites. There are approximately 2 billion battery chargers in use in the United States, with an estimated 500 million new units shipped annually.

A battery charger is the set of components responsible for recharging the battery in products that use rechargeable batteries, including cordless personal care products like shavers, portable electronics, cordless vacuums and power tools, motorized toys, automotive and marine chargers, lawn mowers, golf carts, etc. Electric vehicles are excluded. The battery charger system in a consumer product typically includes the battery itself, some electronic circuitry to control the charge, and a power supply (a.k.a. power adapter).

## WHY A STANDARD?

The standards adopted by the Department of Energy (DOE) in June 2016 are the first federal energy efficiency standards for battery chargers, but they largely mirror the California standards adopted in 2012 and in effect since 2013 for most products. The DOE estimated that 95 percent of the U.S. market already met the California standards in 2014. The federal standards therefore largely codify de facto national standards, with the exception of inductive chargers (e.g. toothbrushes), and also uninterruptible power supplies (UPS), where DOE improved on the California standards for the battery backup systems in a separate rulemaking adopted in December 2016. The DOE's new standards are designed to make battery chargers more efficient by just over 10 percent on average when they go into effect in June 2018.

## BASIS IN LAW

The DOE was statutorily obligated by the Energy Independence and Security Act of 2007 (EISA) to prescribe battery charger standards by 2011 or to determine that no energy conservation standard was technologically feasible and economically justified. This mechanism is part of a federal standards program that has been saving Americans money since the bipartisan enactment of the National Appliance Energy Conservation Act of 1987, which was signed into law by President Reagan. The delay between the statutory deadline and the final rule was largely due to changes in the market as a result of the adoption by California of its own battery charger standards in 2012.

## AMERICAN CONSUMERS BENEFIT

Improved battery charger standards represent a double win for American consumers:

- **Utility bill savings.** Shipments of battery chargers in the United States are estimated at 500 million annually and still increasing. Together with the California standards already in effect, the federal standards will save consumers \$1.5 billion annually on their energy bills.
- **Energy and pollution savings.** Across the country, battery charger standards could save 18 billion kilowatt-hours of electricity annually, reducing climate-changing pollution by an amount equivalent to the harmful emissions from about 2 million cars—enough to power all the households in the state of Kentucky each year. Energy efficiency also reduces power plant pollution that damages human health.

## AMERICAN MANUFACTURERS BENEFIT

U.S. manufacturers support national appliance and equipment standards for several reasons:

- When there is a federal minimum efficiency standard, manufacturers need to meet only that one standard that is applicable in all 50 states, rather than navigate a patchwork of state-level requirements.
- Standards are technology neutral, meaning manufacturers may meet them through whatever ways they prefer, including using already available technology. Or they might choose to develop improved products that might be even more cost-effective.
- Since all products on the market must meet the federal standard regardless of where they are manufactured, standards also ensure that U.S. companies are not undercut by overseas manufacturers offering inexpensive—and often inferior—products to American consumers.

## ENERGY EFFICIENCY IMPACTS ON JOBS AND EQUITY

- Energy efficiency accounts for nearly 1.9 million U.S. jobs, including the production of efficient appliances and equipment.<sup>1</sup> This is 10 times the number of jobs in oil and gas drilling and 30 times more than in coal mining.<sup>2,3</sup> And thousands more jobs will be added in the coming year.
- Energy efficiency standards benefit low-income households, which spend a disproportionate share of their income on energy (sometimes two to three times the proportion paid by higher-income families) and often live in homes with inefficient appliances and equipment.<sup>4</sup>
- Pollution from fossil-fueled power plants can worsen asthma symptoms, exacerbate allergies, affect the nervous system, increase the risk of heart attack, and lead to premature death.<sup>5</sup> Efficient energy use helps reduce the need to burn fossil fuels to generate electricity.

## PUBLIC SUPPORT

Polls repeatedly show that the majority of Americans support energy efficiency.<sup>6,7</sup> In a 2016 postelection survey, 76 percent of Trump voters said they support policies that would require manufacturers to make appliances more energy efficient.<sup>8</sup>

### ENDNOTES

1 E2 and E4theFuture, “Energy Efficiency Jobs in America,” [http://www.e2.org/wp-content/uploads/2016/12/EnergyEfficiencyJobsInAmerica\\_FINAL.pdf](http://www.e2.org/wp-content/uploads/2016/12/EnergyEfficiencyJobsInAmerica_FINAL.pdf)

2 Bureau of Labor Statistics, *Quarterly Census of Employment and Wages, 2015 Second Quarter*, last modified June 2, 2016.

3 Environmental Entrepreneurs and E4TheFuture, “Energy Efficiency Jobs in America,” December 2016, <https://www.e2.org/energyefficiencyjobs/>.

4 Ibid.

5 Ariel Dreihobl and Lauren Ross, “Lifting the High Energy Burden in America’s Largest Cities,” Energy Efficiency for All and American Council for an Energy-Efficient Economy, April 2016, <http://energyefficiencyforall.org/resources/lifting-high-energy-burden-americas-largest-cities#sthash.O6JdtSvD.dpuf>.

6 Sheryl Carter, “Energy Efficiency Is Fueling the Economy, Growing Jobs,” NRDC Expert Blog, December 19, 2016, <https://www.nrdc.org/experts/sheryl-carter/energy-efficiency-fueling-economy-growing-jobs>.

7 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>.

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