

Proposed Stove Standards Would Save Households Money and Cut Pollution

MARCH 2023

The U.S. Department of Energy (DOE) recently proposed the first efficiency performance standards for new gas and electric residential stoves and cooktops and updated design standards for new residential ovens. Finalizing these standards would ensure all models waste less energy, saving money for their users and protecting the planet.

Stoves on the market today vary widely in their efficiency—even from one gas or electric model to another. If finalized, standards recently proposed by DOE would ensure that manufacturers use design features from today's better-performing models in all new stoves and ovens, reducing consumers' utility bills and planet-warming emissions.



Proposed stove standards would save U.S. consumers up to \$1.7 billion and avert about 22 million metric tons of carbon dioxide emissions over 30 years of sales.

The proposed standards for stoves would set separate efficiency requirements for electric smooth, electric coil, and gas models. Stoves have never had to meet any efficiency performance requirements. Today, some gas models use far more energy than others to do the same amount of cooking, and electric smooth models have a wide variation as well. DOE estimates that its proposed standards would reduce energy use by about 30% for both types to do the same amount of cooking, relative to the least efficient products on the market today.

The standards would ensure that all models take advantage of proven improvements already in use by many stoves today. For gas stoves, DOE's analysis found that the proposed efficiency level could be met by optimizing burner and grate design (including grate weight, flame angle, and distance from burner ports to the cooking surface). **Nearly half of the total gas stove market already meets the proposed efficiency level, including all entry level models.** And DOE has ensured that products with high-output burners and continuous cast iron grates—premium features that can increase energy use—can still be made to meet the standard.

For electric smooth cooktops, the proposed efficiency level could be met by reducing standby power consumption using low-standby-loss electronic controls. The proposed standards for ovens would require that the control systems of both electric and gas models use efficient power supplies. Most models already meet these requirements.

The proposed standards, which have been under development since 2014, are long overdue. DOE missed a 2017 legal deadline for issuing a final rule that should have resulted in new standards taking

effect in 2020. If finalized, the recently proposed standards would take effect in 2027, providing manufacturers adequate time to incorporate efficiency improvements across their product lines.

SAVE CONSUMERS MONEY AND CUT EMISSIONS

Inefficient cooking products cost consumers more over the lifetime of the product because they require more energy to operate. DOE's proposed standards for each type of product would ensure that any increase in purchase cost is paid back in electric and gas bill savings. DOE estimates that these standards along with those under development for other household appliances and products will together save consumers about \$570 billion over 30 years of sales, resulting in annual savings of more than \$100 per household.

The proposed cooking product standards would cut 22 million metric tons of carbon dioxide emissions, 245 thousand tons of methane emissions, and 52 thousand tons of NOx emissions over 30 years of sales. Combined with other standards under development, carbon dioxide emissions reductions would reach 2.4 billion metric tons over 30 years of product sales, an amount equal to the emissions from 21 coal-fired power plants over that period. The cooking product standards would also improve indoor air quality for homes with gas stoves by enabling the same amount of cooking with less combustion.