

Last week the Department of Energy (DOE) published a [proposed rule](#) setting energy efficiency standards for residential furnace fans, devices that are “used in residential central heating, ventilation, and air conditioning (HVAC) systems for the purposes of circulating air through duct work.” Prior to this proposal, DOE had no energy efficiency standards for residential furnace fans.

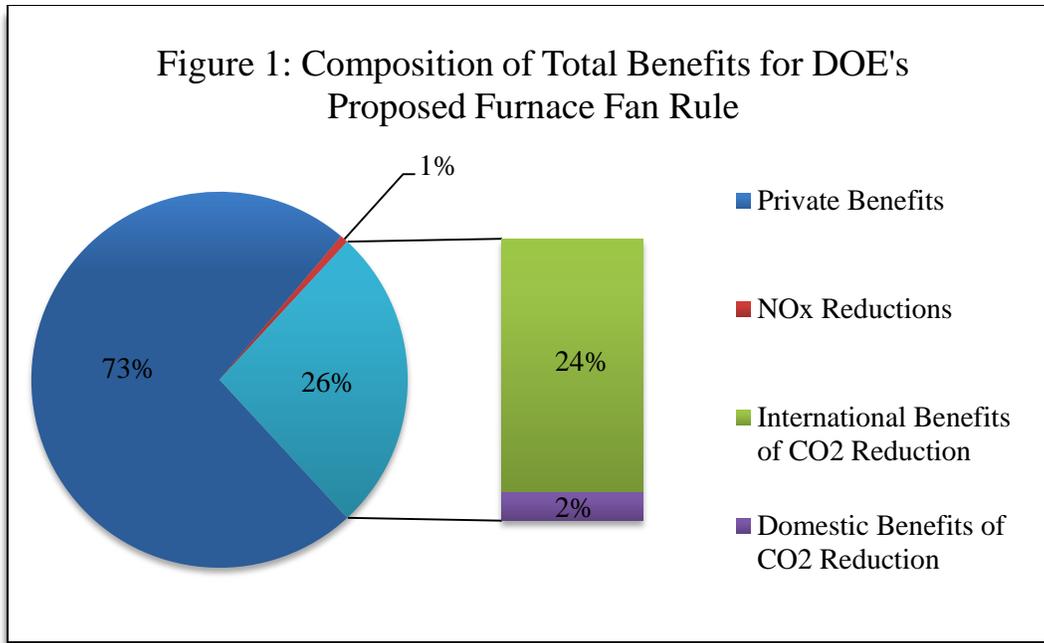
The Energy Policy and Conservation Act of 1975 (EPCA) requires DOE to set standards for residential appliances that achieve the maximum improvement in energy efficiency that is both technologically feasible and economically justified, while also resulting in “significant conservation of energy.” This statutory language gives the Department important guidelines when issuing energy efficiency standards, especially for appliances—such as air conditioners, dishwashers, clothes dryers, and furnace fans—that are a part of everyday life in many American households. Amendments to the EPCA require DOE to promulgate standards for residential furnace fans by December 31, 2013.

According to DOE’s analysis, the proposed rule would save a total of 4.58 quads of energy (or 4.58 quadrillion BTUs) over the first 30 years of implementation (2019 – 2048), the equivalent of 0.15 annualized quads saved over 30 years. The annualized energy savings amount to 1.5 percent of present annual [residential energy consumption](#), and 0.3 percent of total projected residential energy use in 2030. DOE contends that these energy savings would be a “significant conservation of energy” as required by the EPCA.

DOE estimates that these standards will cost furnace manufacturers [\\$54.4 million](#), 21.6 percent of the current industry net present value. The Department puts the total cost of the standards at between \$3.1 billion and \$5.8 billion dollars present value, with annualized costs of between \$231 million and \$290 million. For consumers, the efficiency standards are expected to raise the price of furnace fans by between \$67 and \$183 per unit, a price increase of between 31 and 54 percent. DOE expects 33 percent of consumers to experience a net loss as a result of this rule, and expects 53 percent of consumers to experience a net benefit resulting from reduced energy costs.

The majority of the benefits that DOE expects to result from this rule are private benefits, or the net energy savings to consumers resulting from increased appliance efficiency. The composition of benefits that DOE projects would result from its proposed rule over 30 years is illustrated in Figure 1 below.





Seventy-three percent of the rule’s anticipated benefits are private benefits, with the international benefits of CO₂ reduction comprising 24 percent of the rule’s benefits. Only 2 percent of the total benefits of DOE’s proposed rule are the benefits to the U.S. of reducing CO₂ emissions.

According to DOE’s proposed rule, furnace fans achieving these energy efficiency levels “are already commercially available for at least some, if not most, product classes covered by this proposal.” That is, in many cases, consumers already have the option to purchase a higher-cost, higher-efficiency product. The fact that consumers are not already availing themselves of this option indicates that consumers either are uninformed about the costs savings associated with purchasing the higher-efficiency products or they do not value future energy savings as much as DOE thinks they should. Neither of these constraints would be addressed by the Department’s proposed rule, which would instead set a blanket efficiency standard applicable to all consumers, regardless of preferences.

