

In September, the Department of Energy (DOE) published a [proposed rule](#) setting energy efficiency standards for 49 different types of commercial refrigeration equipment, establishing maximum allowable energy usage standards as a function of either refrigerated volume or total display area for each separate equipment class. The standards will increase appliance prices for commercial customers such as restaurants, supermarkets, warehouse stores, and convenience stores, but DOE also expects these customers to benefit from longer-term energy savings.

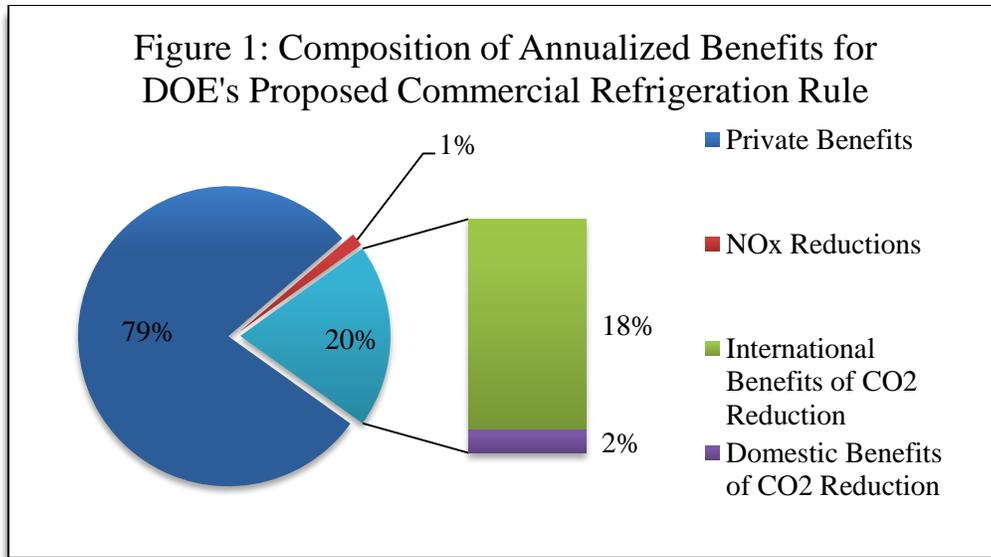
DOE expects the standards to result in \$379 million in annualized benefits and \$97 million in annualized costs through the year 2046. DOE also expects manufacturers of commercial refrigeration equipment to incur about \$87.5 million in total conversion costs. These standards are intended to reduce American energy consumption, decrease global greenhouse gas emissions, and reduce commercial customers' energy bills long-term.

As DOE explains in its proposed rule, two types of market failure could potentially be addressed by these energy efficiency standards. First, energy use related to commercial refrigeration results in some greenhouse gas emissions. Because the social cost of greenhouse gas emissions may not be fully represented in the price of energy, these emissions are externalities which regulatory policies could address. Second, retailers are currently purchasing commercial refrigerators with higher long-term energy costs, which may indicate that they do not have sufficient information about the energy cost savings that higher-efficiency products make possible. This asymmetric information, if it exists, could be remedied by improved labeling or other types of retailer education campaigns.

However, as I argue in a [public comment](#) submitted to DOE on its proposed rule, neither of the potential market failures cited by DOE is solved by its proposed energy efficiency standards, leaving the proposal economically unjustifiable.

The benefits expected to result from these standards fall into two categories: customer savings from reduced appliance operating costs, and the global monetized value of reduced carbon emissions. As can be seen in Figure 1, these two benefit categories comprise 97% of the total benefits of the proposed rule.





Source: Department of Energy's Technical Support Document for the Proposed Rule, *Energy Conservation Program: Energy Conservation Standards for Commercial Refrigeration Equipment*. Page 1-3.

DOE estimates global externality benefits of the proposed standard at \$80 million, compared to costs to US citizens of \$97 million. Additionally, DOE expects only 3% of the annualized externality benefits of carbon reductions to accrue to Americans. Thus, the annualized costs to American citizens outweigh the social benefits of the standard by 7 to 1, calling into question whether this proposal is economically justified, as required by law.

Additionally, DOE does not explain why sophisticated, profit-motivated purchasers of commercial refrigeration would suffer from either informational deficits or cognitive biases that would cause them to purchase products with high lifetime costs without demanding higher-price, higher-efficiency products. This asymmetric information, if it exists, could be remedied by improved labeling or other types of retailer education campaigns rather than banning products from the marketplace. DOE's approach, in addition to ignoring any potential underlying information asymmetry issues, is contrary to President Obama's instruction to agencies in [Executive Order 13563](#):

Where relevant, feasible, and consistent with regulatory objectives, and to the extent permitted by law, each agency *shall identify and consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public*. These approaches include warnings, appropriate default rules, and disclosure requirements as well as provision of information to the public in a form that is clear and intelligible.

DOE's proposal does not maintain flexibility and freedom of choice for purchasers of commercial refrigeration equipment, and the resulting benefits do not justify the costs as required both by statute and by Executive Order.

