



Regulation Review

Final Furnace Fan Efficiency Standards

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The Department of Energy (DOE) recently released the final version of its efficiency standards for residential furnace fans. This rule is the seventh final energy efficiency regulation in 2014. The unofficial, pre-publication [version](#) is 306 pages. The American Action Forum (AAF) previously reviewed the proposed version [here](#).

BREAKDOWN

Proposed Rule

- Total Costs: \$5.8 billion
- Annualized Costs: \$231 million (Primary Estimate at 7% discount rate)
- Annualized Benefits: \$1.4 billion

Final Rule

- Total Costs: \$6.2 billion
- Annualized Costs: \$358 million (Primary Estimate at 7% discount rate)
- Annualized Benefits: \$1.7 billion

Annualized costs increase by \$127 million; annualized benefits increase by \$283 million

ANALYSIS

The most notable aspect is that DOE's analysis seems to peg the final rule as both more costly and more beneficial than its proposed iteration. This is particularly curious when both versions settle upon "Trial Standard Level 4" (TSL 4). The answer may lie in how the agency defines TSL 4 in the final version. For instance, in its responses to stakeholder comments, DOE notes:

For the final rule, DOE incorporated new test data on the fan efficiency levels that were included in TSL 3 (constant torque BPM motors) and TSL 4 (constant torque BPM motors (multi-stage)). These data contributed to a decrease in efficiency for TSL 4 (see section IV.C.1) With this change, the increase in savings from TSL 3 to TSL 4 is now smaller than in the NOPR.

While there were notable shifts in the overall cost and benefit figures, much of the rule's further analysis

follows that of its proposed version. It still triggers the private sector expenditure part of the Unfunded Mandates Reform Act and DOE is still unable to certify that it would not trigger the Regulatory Flexibility Act. The Office of Regulation and Information Affairs seems to have little issue with it either, as its [review summary](#) includes a “Final Rule No Material Change” designation.

Using Census data to determine the most affected industry (“Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing”), the following states could potentially see a higher share of the costs.

Potential Cost Share in Affected States	
Texas	\$656 million
Missouri	\$532 million
Tennessee	\$420 million
Ohio	\$352 million
Oklahoma	\$352 million

As with virtually all energy efficiency standards of late, furnace fan manufacturers will have to pass on some of the costs to consumers in the form of higher prices. DOE includes data on the per unit cost increases for eight different product classes of furnace fans. The average baseline per unit cost of all classes is approximately \$300. Under this rule, the average furnace fan’s cost would increase by roughly \$75, essentially a 25 percent price hike.

The flow of energy efficiency rules continues to expand into various products. As DOE succinctly acknowledges in its background section: “Currently, no Federal energy conservation standards apply to residential furnace fans.” What warranted such action? The agency contends, in its Executive Order 12,866 analysis, that a series of market failures justify this action. However, it’s also clear what the agency’s supposed solutions yield: more than \$6 billion in costs (the 4th most expensive final rule of 2014) and raising the sticker price of these products by a quarter of their typical cost.