



Regulation Review

Efficiency Standards for Commercial Air Conditioners

SEPTEMBER 30, 2014

Approximately one week after releasing a set of proposed efficiency standards for “[packaged terminal air conditioners](#),” the Department of Energy (D

OE) released a set of standards for “Small, Large, and Very Large Commercial Package Air Conditioning” machines. While the sizes vary from small to very large, these units are considerably larger than those covered in last week’s proposal. Last week’s rule was a relatively modest set of efficiency standards, but this set imposes nearly \$9 billion in total costs. The unofficial, [pre-publication version](#) is 275 pages.

BREAKDOWN

- Total Potential Costs: \$8.8 billion (\$507 million annually)
- Total Potential Benefits: \$91.6 billion (\$5.2 billion annually)

ANALYSIS

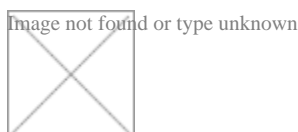
The top-line cost estimate of \$8.8 billion is a daunting figure. However, it is only the fourth most expensive set of efficiency standards released in 2014 behind those for [fluorescent lamps](#) and [electric motors, and walk-in coolers](#). With this proposal, DOE has published nearly \$60 billion total costs for 2014. That is higher than any of the past three-year’s totals, with three months remaining.

Using Census data regarding the distribution of the “Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing” industry, the following states could bear the greatest share of the costs:

<u>State</u>	<u>Potential Cost Share</u>
Texas	\$1,042 million
California	\$882 million
Florida	\$531 million

<u>State</u>	<u>Potential Cost Share</u>
Pennsylvania	\$531 million
Illinois	\$411 million

The top-line estimates are hardly the most jarring aspect of this rulemaking. In its Regulatory Flexibility Act analysis, DOE claims the typical, double-negative designation that they “cannot certify that the proposed standards would not have a significant impact on a significant number of small businesses.” While the relatively small overall size of the industry may not allow for a significant number, it is clear from the tables DOE provides that this rule could have a significant effect on both small and large air conditioning manufacturers.



Across the board, at DOE’s chosen standard level of TSL 3, all firms will see conversion costs consuming a substantial – at times astounding – amount of their operating budget. Even for large manufacturers, a single cost element that matches 20 percent of annual revenues is difficult to ignore. Even DOE recognizes that for small manufacturers:

Given that small manufacturers tend to have less access to capital and that the necessary conversion costs are high relative to the size of a small business, it is possible the small manufacturers will choose to leave the industry or choose to be purchased by or merged with larger market players.

Considering how disruptive these standards could be to manufacturers and their employees, it comes as little surprise that the proposal could seriously affect the industry’s employment. DOE estimates that hundreds of workers could lose their jobs. As the agency concedes, “DOE recognizes the potential for industry consolidation and its concomitant impacts on employment levels.”



The standards also impose notable up-front price increases for consumers. In the Technical Support Document, DOE lists the potential increases from a current baseline level of “total installed cost,” or “the sum of the equipment price and the installation cost” (see table below). Taking the average across all three product classes, the typical unit could bear increased installation costs of \$3,735 per unit, a nearly 25 percent price spike.



The consistent flow of energy efficiency standards has been one of the main regulatory trends in 2014. With this particular set, this year’s cumulative costs have reached \$150 billion, more than 28 percent higher than 2013.

Regardless of the price tag for each efficiency rulemaking, many trends continue as well: prohibitive conversion costs for small businesses, potential disruption in certain job markets, and sticker shock for consumers.