



U.S. Energy Savings from the Use of Chemistry Products

The use of chemistry in energy-saving products such as building insulation, compact florescent lighting, and lightweight plastic vehicle parts saves America up to **10.9 quadrillion Btus of energy and up to \$85 billion in energy costs annually.**

What does 10.9 quadrillion British thermal units (Btus)* of energy represent?

- **11.1 percent** of total U.S. energy consumption.

10.9 quadrillion BTUs is the amount of energy needed to:

- Heat, cool, light, and power **56 million households.**
 - **One-half** of all U.S. households.
- Power **135 million vehicles** for a year.
 - **55 percent** of the cars on the road today.
- **243,000 windmills** operating under typical conditions.
 - This is **3x** the wind capacity in place at the end of 2011.

Methodology: In 2009, on behalf of the International Council of Chemical Associations (ICCA), McKinsey & Company developed estimates of the global greenhouse gas (GHG) emissions savings attributable to use of chemistry products. American Chemistry Council economists used the McKinsey data to convert estimates of global GHG emission reductions into energy savings, and then estimated the share of those savings that is attributable to the U.S. chemical industry.

"The ICCA has a transparent methodology, discloses that methodology's strengths and weaknesses, and had its results checked by the prestigious OKO Institute. The ACC uses two approaches to estimate the energy savings attributable to U.S. chemistry products. The two methods, known as "top down" and "bottom up," yield similar results, as did my own summary calculations. These are sound approaches."

- Frederick M. Peterson, Ph.D., Probe Economics LLC, Hanover, New Hampshire