

“Every building is a forecast.”

Stewart Brand

One of the founders of the environmental movement, creator of the Whole Earth Catalogue



SAVING ENERGY THROUGH HIGH PERFORMANCE BUILDINGS

www.GreenBuildingSolutions.org

“When it comes to saving money and growing our economy, energy efficiency isn't just low hanging fruit; it's fruit laying on the ground.”

Steven Chu

Energy Secretary and Nobel Laureate in Physics

States Must Drive Energy Conservation by Modernizing Building Codes

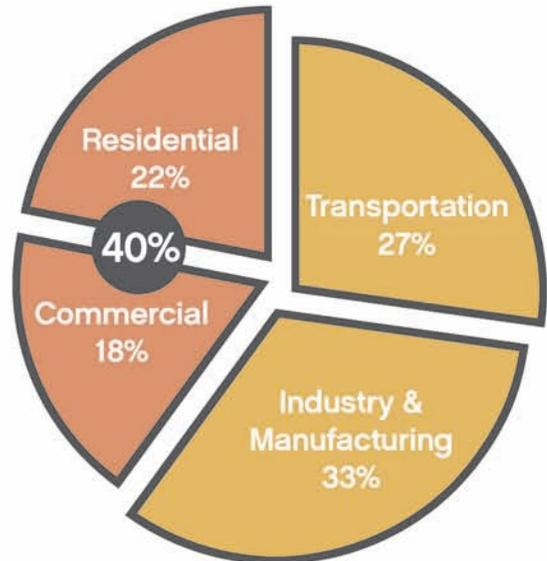
America's chemical manufacturers make the products that will answer society's need for a more sustainable future. Our innovative products are used to make buildings and homes more energy efficient. From foam insulation in roofs and walls, to vinyl window frames, recycled plastic lumber decks, and cool roof membranes, we are proud to contribute to sustainable construction and green building design.

Incredibly, **residential and commercial sectors account for 40% of our nation's energy consumption.**¹ Energy conservation is the cheapest means for balancing energy supply.

The American Chemistry Council (ACC) advocates construction of **energy efficient, high performance** buildings and homes.

States and the Federal government can drive energy conservation by setting the goal for public buildings at 30 percent better than current state energy efficiency codes.

Share of Energy Consumed by Major Sectors of the Economy



¹ Department of Energy (DOE) illustration: <http://www.epa.gov/lean/energytoolkit/ch1.htm>

According to the U.S. DOE new commercial buildings can achieve an amazing 50% energy savings when a building uses all of these design features:

- Continuous rigid plastic foam insulation to improve thermal performance in walls and roofs
- Light-colored, reflective plastic roofing membranes, especially in warmer climates
- High thermal performing window frame material
- Window glazing to lower U-value and increase solar heat gain
- PEX tubing radiant heat combined with rigid plastic foam insulation for both heating and cooling floors

50%
ENERGY SAVINGS

40-50% of Consumed Energy Leaks from a Typical American Home



That's an energy 'payback' of one month!

Source: Franklin Associates, DOE

Applying housewrap to just one house in the U.S. over 30 years saves the equivalent of 8,287 gallons of gasoline. That would fuel a hybrid car for 27 years, or fuel an average mid-sized sedan for 15 years.²

Energy savings also means fewer green house gas emissions (GHG). Significantly less energy needed to heat and cool a house prevents GHG emissions equivalent to burning 91 gallons of gasoline per year.³ Multiply that by millions of homes.

^{2,3} http://www.greenbuildingsolutions.org/s__greenbuilding/bin.asp?SID=13&DID=9028&CID=2145&VID=283&DOC=File.PDF; extrapolation and calculations typical of hybrid and mid-sized sedans performed by Energetics Inc. 2009

Energy Performance Not Just a Check List

Eco-label rating systems based on check lists like Green Globes and LEED can detract from measures that will result in significant building energy savings performance. As a result, some eco-labeled buildings miss the mark in terms of improved and sustained energy efficiency performance.

ACC believes energy conservation goals should be based on consensus-based engineering standards such as ASHRAE and IECC. These are commonly accepted building industry standards.

Another limitation of rating systems is they can discriminate against locally produced building products. Modern and traditional building products should be selected based on their enhanced energy conservation performance – not solely on their green label 'check box' status.

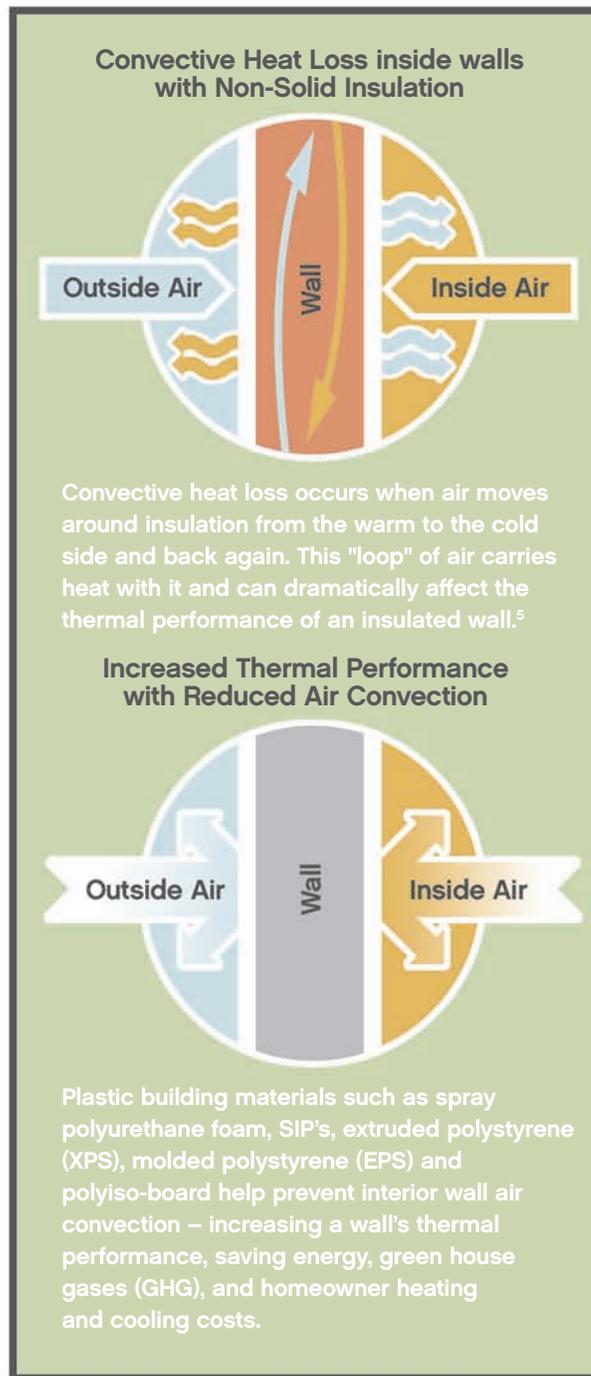
Promoting Cost Effective Energy Conservation in Your State

In 2007, the Federal government established regulations requiring Federal buildings to achieve at least 30% greater energy efficiency over prevailing building codes.⁴ If extended to state buildings, this standard could have a significant impact in lowering U.S. energy demand and lessening our overall environmental impact.

To improve the energy performance of new and existing buildings throughout your state and increase the demand for building and construction materials made in your state, ACC supports incentives for commercial buildings to exceed the ASHRAE 90.1.2007 standard by 30 percent and the adoption of IECC (2009) for residential homes.

Building to the higher energy efficiency standard can yield other savings, for example, it will save considerable heating and cooling resources over the life of the building.

Upgrading these performance goals is an easy and direct way to achieve substantive energy savings and reduction in greenhouse gas emissions. That benefits everyone – the builder (in value), the owner (in monthly costs), and future generations (in the environment).



⁴ So far 19 states have raised their energy efficiency codes to stimulate growth of this trend.

⁵ National Research Council Canada



www.GreenBuildingSolutions.org

ACC Southern Region
ACC Midwest Region
ACC Northeast Region
ACC Western Region
ACC Headquarters – Northern Region

Rudy_Underwood@americanchemistry.com
John_easter@americanchemistry.com
Steve_Rosario@americanchemistry.com
Tim_Shestek@americanchemistry.com
Josh_young@americanchemistry.com

