

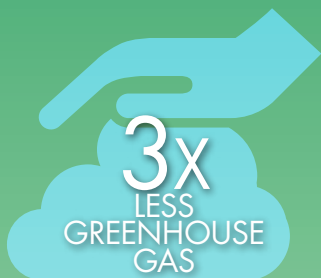
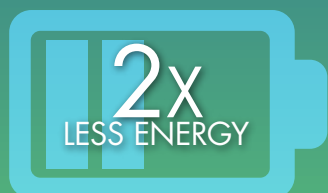
# THE VALUE OF PLASTICS

**Chevron  
Phillips**  
Chemical Company LLC

Performance by design.  
Caring by choice.™

## ENERGY EFFICIENCY

Plastics require less energy to produce than glass, paper, wood, metal and more. Many plastics also save energy during their use.



Replacing plastics with other materials would require the use of **57%** more energy and result in a **61%** increase in greenhouse gas emissions.

## FOOD WASTE PREVENTION

Food packed in material other than plastics such as glass or paper weighs 4 times more, has double the related energy consumption, triple the greenhouse gas emissions, and increased food waste.

Just 1 kg of plastic can deliver 38L of a beverage. You'd need 1.3kg of aluminum, 3.6kg of steel, or over 18kg of glass to bring home the same amount.



Plastic packaging consumes much less energy to make than alternative materials and weighs considerably less. One example: A popular coffee brand reduced the weight of its coffee container by **84%** when switching from metal to plastics. The plastic container saves energy in manufacturing and reduces fuel use in transportation.

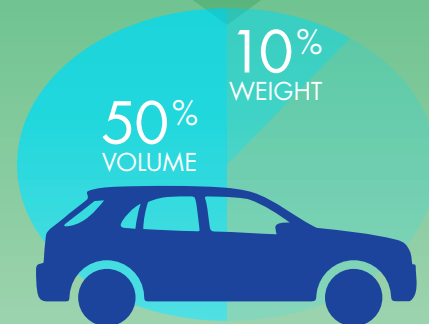


## TRANSPORTATION SAVINGS

Energy efficiency of modern vehicles could not be achieved without the use of plastics. This includes lighter automotive components, light-weighted packaging, reduced weight in aircraft and more.



Plastics help airplanes travel lighter, using less energy thus bring more fuel-efficient. Plastics also make planes more resistant to impact, bad weather and corrosion.



Most vehicles consist of **50 %** plastics by volume and **10 %** by weight. Steel has been safely replaced by lighter-weight plastics which helps alleviate the car's load on the engine, reducing fuel use. Because of plastic, the average car is **66kg** lighter compared to **30** years ago.

SOURCE: AMERICAN CHEMISTRY COUNCIL, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA)

80%  
REDUCTION IN ENERGY  
CONSUMPTION

Building and construction is the second largest use for plastics behind packaging. Combining thermal insulation with tripled glazed windows and other simple things can reduce energy consumption by up to 80%. Plastics are one of the few materials that can be used in both applications.

SOURCE: PLASTICS EUROPE

PLEASE RECYCLE!