

# Benefits of Glass Recycling: Why Recycle Glass?

Glass Recycling is Efficient and Sustainable; Saves Energy and Natural Resources

By Larry West; Environmental Issues Expert

Glass recycling is both simple and beneficial. Let's start with the benefits of glass recycling:

- **Glass Recycling is Good for the Environment**

A glass bottle that is sent to a landfill can take up to a million years to break down. By contrast, it takes as little as 30 days for a recycled glass bottle to leave your kitchen recycling bin and appear on a store shelf as a new glass container.

- **Glass Recycling is Sustainable**

Glass containers are 100-percent recyclable, which means they can be recycled repeatedly, again and again, with no loss of purity or quality in the glass.

- **Glass Recycling is Efficient**

Recovered glass from glass recycling is the primary ingredient in all new glass containers. A typical glass container is made of as much as 70 percent recycled glass. According to industry estimates, 80 percent of all recycled glass eventually ends up as new glass containers.

- **Glass Recycling Conserves Natural Resources**

Every ton of glass that is recycled saves *more* than a ton of the raw materials needed to create new glass, including: 1,300 pounds of sand; 410 pounds of soda ash; and 380 pounds of limestone.

- **Glass Recycling Saves Energy**

Making new glass means heating sand and other substances to a temperature of 2,600 degrees Fahrenheit, which requires a lot of energy and creates a lot of industrial pollution. One of the first steps in glass recycling is to crush the glass and create a product called "cullet." Making recycled glass products from cullet consumes 40 percent less energy than making new glass from raw materials, because cullet melts at a much lower temperature.

- **Recycled Glass is Useful**

Because glass is made from natural materials such as sand and limestone, its glass containers have a low rate of chemical interaction with their contents. As a result, glass can be safely reused. Besides serving as the primary ingredient in new glass containers, recycled glass also has many other commercial uses—from creating decorative tiles and landscaping material to rebuilding eroded beaches.

- **Glass Recycling is Simple**

As I pointed out at the beginning of this article, glass recycling is simple. It's simple, because glass is one of the easiest materials to recycle. For one thing, glass is accepted by almost all curbside recycling programs and municipal recycling centers. All most people have to do to recycle glass bottles and jars is to carry their recycling bin to the curb, or maybe drop off their empty glass containers at a nearby collection point.

- **Glass Recycling Pays**

If you need an extra incentive to recycle glass, how about this: Several U.S. states offer cash refunds for most glass bottles, so in some areas glass recycling can actually put a little extra money in your pocket.



# The Benefits of Aluminum Recycling: Why Recycle Aluminum?

Aluminum Recycling Saves Energy and Enhances Community Life

By Larry West; Environmental Issues Expert



If it is even remotely possible that any man-made item on Earth is more ubiquitous than plastic bags, it would have to be aluminum cans. But unlike plastic bags, which endanger marine life and trash the planet, aluminum cans are actually good for the environment. At least, they are if people like you and me take the time to recycle them.

So why recycle aluminum? Well, as a starting point for answering that question, how about this: Aluminum recycling provides many environmental, economic and community benefits; it saves energy, time,

money and precious natural resources; and it generates jobs and helps to pay for community services that make life better for millions of people.

## **How serious is the problem?**

More than 100 billion aluminum cans are sold in the United States each year, but less than half are recycled. A similar number of aluminum cans in other countries are also incinerated or sent to landfills.

## **How does failing to recycle aluminum harm the environment?**

Globally, the aluminum industry annually emits millions of tons of greenhouse gases such as carbon dioxide, which contributes to global warming. Although aluminum cans represent only 1.4 percent of a ton of garbage by weight, according to the Container Recycling Institute, they account for 14.1 percent of the greenhouse gas impacts associated with replacing an average ton of garbage with new products made from new materials.

## **How many times can the same piece of aluminum be recycled?**

There is no limit to how many times aluminum can be recycled. That's why recycling aluminum is such a boon for the environment. Aluminum is considered a sustainable metal, which means it can be recycled again and again with no loss of material.

And it has never been cheaper, faster or more energy efficient to recycle aluminum than it is today.

Aluminum cans are 100-percent recyclable, making them the most recyclable of all materials. The aluminum can you toss into your recycling bin today will be completely recycled and back on the store shelf in just 60 days.

## **How much aluminum is recycled every year?**

A little less than half of all aluminum cans sold each year-in the United States and worldwide-are recycled and turned into new aluminum cans and other products.

## **How much aluminum is thrown away and never recycled?**

We may be recycling more aluminum every year, but things could still be a lot better. According to the Environmental Defense Fund, Americans throw away so much aluminum that every three months we could collect enough scrap to rebuild the entire U.S. commercial airplane fleet from the ground up. That's a lot of wasted aluminum.

Globally, more than half of all the aluminum cans produced and sold every year are thrown away and never recycled, which means they have to be replaced by new cans made from new materials.

# About Plastic Recycling

By Rick LeBlanc; Recycling Expert

## With Rapid Growth Comes the Urgency to Recycle

For the last 50 years, plastic consumption has continued to increase as this amazing versatile and low cost material continues to excel at countless new applications, ranging from improving food safety and distribution efficiency to helping to create lighter, more fuel efficient vehicles. Unfortunately, our collective ability to effectively recycle this material has lagged.

## Plastic Bottle Recycling

In 2013, some 299 million tons of plastic were produced worldwide, according to the Worldwatch Institute, as plastic continues to replace over materials, notably metal and glass. In the years between 1950 and 2011, on average, the industry grew at a rate of nine percent, and is expected to track a similar level of expansion in the future. With this proliferation, the need to effectively recycle this material and keep it out of landfills has been magnified. In fact, while plastic comprised less than one percent of municipal solid waste in 1960, by the first decade of the 2000s it had reached double figures. Worldwide, a range between 22 percent and 43 percent of plastic is disposed of in landfills, according to the United Nations Environmental Program.

## Key Facts to Consider

Here are some other facts to consider from Worldwatch Institute:

“Only 9 percent of post-consumer plastic, amounting to 2.8 million tons, was recycled in the U.S. during 2012. The balance, totaling 32 million tons, was sent to landfills or otherwise discarded.

Around 4 percent of annual petroleum consumption globally is used to produce plastic, with an additional 4 percent employed to power manufacturing processes for plastic production.

Waste to energy is a very important approach in Europe where 36 percent of post-consumer plastic was burned to generate energy in 2012. Recycling absorbed about 26 percent of post-consumer plastic generation, or 6.6 million tons. The balance, 38 percent of post-consumer plastic, ended up in landfills.”

## The Problem of Plastic Garbage in Oceans

Additionally, between 10 to 20 million tons of plastic end up annually in the oceans. According to a study cited by Worldwatch Institute, there are 5.25 trillion plastic particles weighing a total of 268,940 tons are currently adrift in oceans around the world. The economic impact of this situation amounts to losses of \$13 billion per year created by financial losses to fisheries and tourism as well as time spent cleaning beaches.

## Uncontrolled Recycling

One of the challenges for sustainable recycling has been the flow of plastic material to unsophisticated recycling operations abroad, which generate pollutants and contaminate water in the course of recycling, or alternately, that instead of being recycled, such material is ending up in waste to energy plants lacking effective pollution controls.

## Meeting the Need for Recycling

In response to the shift to plastic, the plastic recycling industry has continued to expand as well. Plastic recyclers provide many benefits environmentally as well as to the economy. According to the Institute for Recycling Industries (ISRI) there are many environmental benefits from using recycled material versus new material in terms of the reduced demand for raw resources, as well as decreased energy required for processing. In regard to diversion, recycling helps keep plastic material out of landfills. As well, the use of recycled materials is more energy efficient in terms of producing than new material, while avoiding the consumption of new resources.