

green@work[®]



When TRASH Becomes Treasure

Turning waste
byproducts into
alternative
energy

INSIDE

WIND POWER:
TEXAS VS. CALIFORNIA

FIGHTING FOR SOCIALLY
RESPONSIBLE RETIREMENT

CONTRIBUTING AND EDUCATING



A Clear Solution

Composed of abundant natural materials, glass is one of the most sustainable packaging products in the world.

BY STEVE MCCRACKEN

Here's a fact: Glass is truly sustainable. It has been trusted for thousands of years and has been proven safe generation after generation. When it comes to the health and well-being of society—from the direct-consumption health impacts on consumers, to the indirect impacts on our natural resources and environment—the risk/reward trade-off clearly favors glass over all other packaging alternatives.

Glass is the true Cradle to Cradle packaging product. Composed of abundant natural materials—sand, soda ash and limestone—glass is the purest packaging available. It is safe and healthy for food and beverage because it is chemically inert, meaning it does not interact with the contents, and it protects and preserves the contents and increases shelf-life due to its impervious nature.

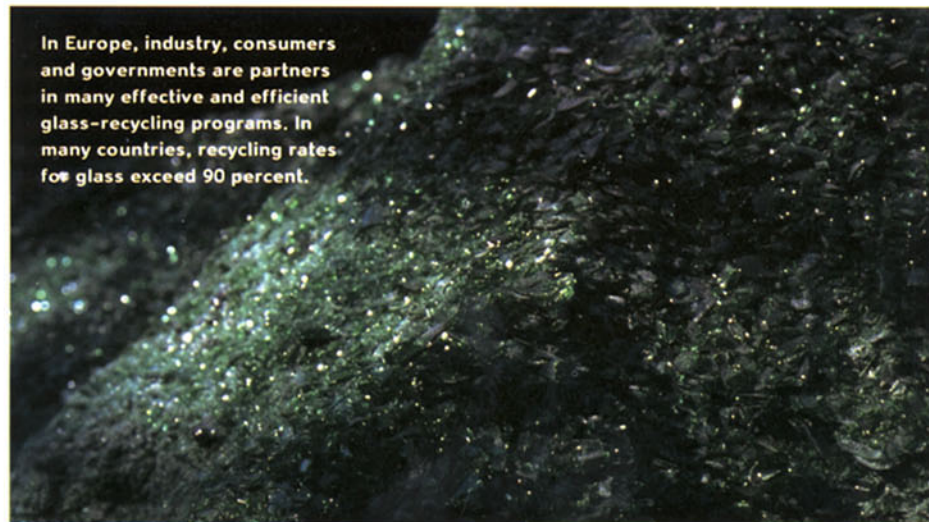
Not only is glass safe for us, but it's the most environmentally friendly and endlessly recyclable material on earth. Unlike other packaging materials, glass is

not down-cycled, and even when recycled again and again, glass maintains its original quality, purity and clarity, and can be restored to its original use as a food or beverage container. Used bottles can be reused to make new bottles forever. Alternative packaging materials, such as cans, polyethylene terephthalate (PET) and paper can be recycled, but generally into lower-value uses other than food and beverage packaging. Plastic bottles are rarely recycled into new plastic bottles. They are more often down-cycled into lower-value uses.

EUROPE LEADS THE WORLD IN RECYCLING

Recycling glass is positive for the environment. In Europe, industry, consumers and governments are partners in many effective and efficient recycling programs. In many countries, recycling rates for glass exceed 90 percent. Of 12.8 million tons of glass containers sold each year, about 7.9 million tons (62 percent) are recovered and sold as recycled glass (called "cullet") to

Unlike other packaging materials, glass is not down-cycled, and even when recycled again and again, glass maintains its original quality, purity and clarity, and can be restored to its original use as a food or beverage container.



In Europe, industry, consumers and governments are partners in many effective and efficient glass-recycling programs. In many countries, recycling rates for glass exceed 90 percent.

bottle manufacturers to use again; this far exceeds the glass recovery ratios in North America. This high waste recovery rate enables glass container production plants to operate with up to 90 percent cullet.

In North America, there is a shortage of quality cullet. Of 10.7 million tons of glass packaging consumed, only 2.4 million tons, or 22 percent, is made available to glass manufacturers for reuse. Despite being reused at higher rates than plastic in the United States, the potential to use more recycled glass is significant, and the demand for cullet by glass manufacturers is high, especially with energy costs increasing. Interestingly, about 50 percent of all

quality recycled material comes from just 11 states—the 11 states with bottle deposit legislation. Factors negatively impacting glass recycling in the United States include “single stream” collection systems used to reduce collection labor, a lack of investment in sorting technologies, and financial incentives that sometimes favor land filling of waste vs. viable alternatives.

Increasing the recovery and recycling rate for all packaging materials, including glass, will provide great impact on the environment from both an energy consumption and waste perspective. We must begin to act more strongly behind this cause.

PROTECTING THE ENVIRONMENT

For every 10 percent of cullet used in the manufacturing process, there is a 2.5 percent energy savings. Additionally, every 10 percent reduces emission particulates

by 8 percent, nitrogen oxide by 4 percent and sulfur oxides by 10 percent. For every six tons of cullet used, one ton of carbon dioxide emission is reduced. As the statistics indicate, using and recycling glass packaging is critically important to the environment. We can all make a difference in this aspect.

As consumers and merchants, we must carefully evaluate packaging claims, and increasingly favor the purchase of products that are packaged in pure and sustainable materials. Only glass is composed of 100-percent natural and abundant ingredients. What's more, glass is the only mass-produced packaging generally regarded as safe (GRAS) by the U.S. Food & Drug Administration.

We, the glass container industry, and caring consumers must be more outspoken about the need for quality glass recycling. We need to demand rigorous processing

systems, and not allow competing materials that are more difficult and costly to recycle to more effectively sway the future shape of recycling systems in our states and local communities. The demand for quality recycling needs to be the new mantra of the glass container manufacturing industry, along with concerned citizens and business leaders. We need more active involvement with our local government officials about our community's recycling programs, and we should make free enterprise work by purchasing products in packaging that is healthy for us and the environment.



Steve McCracken is the chairman and chief executive officer of O-I Glass.®