



Steel Recycling

The Foundation of a Sustainable Future



“The steel industry’s focus on education to advance knowledge about recycling is leading the way to increasing the next generation’s ability to recycle.”

– Kate M. Krebs, Executive Director, National Recycling Coalition, Inc.

In the competitive materials arena, steel is the environmental leader. The overall steel recycling rate of 75.7% in the U.S. in 2005 led all other materials, with total tons of steel recycled at slightly over 76 million, more than all other materials combined. The steel can recycling rate of 63% was the highest of any packaging material and continues to position the steel can as America’s most recycled food and beverage container. This is the fourth consecutive year that steel cans had a higher recycling rate than aluminum cans.

Steel recycling is a key component to achieving the industry’s overall reduction in energy intensity per ton of steel shipped. Through our industry’s focus on post-consumer steel recycling, we are effectively supporting a significantly cleaner environment by assisting consumers, communities and customers alike in reducing waste, reusing materials and recycling steel scrap.

The North American steel industry's recycling efforts are driven by the Steel Recycling Institute (SRI), which has both a market focus and an industry focus. The market focus is on post-consumer recycling for steel cans and appliances, "green" design in the construction market and support for automotive initiatives that take cars out of the waste stream and into the recycling stream. The industry focus is on overall issues of concern such as sustainable development, CO₂ emissions and the quality of steel scrap.

– William Heenan, President, Steel Recycling Institute



Steel recycling is entrenched in the mainstream.

The Steel Recycling Institute's aggressive educational outreach to consumers, lawmakers and influential environmental organizations is paying off.

Steel Recycling = Community Profit. Through SRI's regional directors, our industry is maintaining a grassroots presence in communities across the country. This has been fundamental to our recycling success, as consumers increasingly become aware of steel as the most recycled material.



This regional approach is supported through the SRI Database, where consumers can easily find steel product drop-off areas. The database is available through the "hot line" number (1-800-YES I CAN) and the SRI Web site, www.recycle-steel.org. In 2006, SRI dedicated resources to restoring information on the database about drop-off recycling locations in the Gulf Coast region, many of which had been destroyed by the storm surge generated by hurricane Katrina.



Promoting Global Sustainable Steel Solutions. SRI has partnered with the International Iron and Steel Institute (IISI) to promote sustainable development worldwide.

Environmental sustainability is a key focus of the construction market, where architects and designers are ensuring that their designs meet LEED® (Leadership in Energy and Environmental Design) guidelines. SRI provides "green building" information to customers and partners to ensure that steel remains the "EnviroMetal."



Advancing Industry Initiatives at Home. SRI engages federal, state and local government officials on many issues critical to enhancing the competitiveness of the North American steel industry. Partnerships with influential organizations like Keep America Beautiful, the National Recycling Coalition, Environmental Defense and the Clinton Global Initiative have been forged to develop and enact sustainable legislative and educational steel solutions. SRI also provides a key support role in analyzing the impact of environmental issues on various market segments.

SRI maintains its credibility as a player with future U.S. governors, senators and other officials through annual participation in the National Lieutenant Governors Association Conference. The conference provides a forum for educating future elected and appointed officials on issues of concern facing our industry and the value that steel products deliver.

Market Impact — Steel Recycling
The overall steel recycling rate was 75.7% in 2005.

Steel provides environmental solutions. In support of our automotive program, the SRI has evaluated lightweight materials. Steel is also competitive when comparing the life cycle inventory and life cycle assessment of individual products.

In support of the Steel Packaging Council, SRI conducted a study in 2006 to analyze the total energy required to deliver food to consumers. The results demonstrated that canned food is a more energy-efficient method for product delivery than its fresh and frozen counterparts. Frozen products require approximately 70% more energy than canned products to bring food from the farm to the table. The Steel Recycling Institute is addressing inquiries on both of these studies from steel customers, government officials and academia.

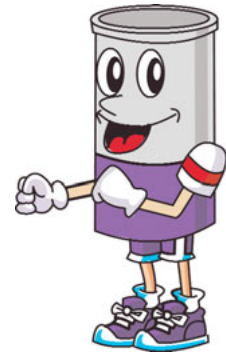
The next generation of recyclers is being reached with information that is teaching them eco-friendly habits. ROSCOE’s Recycle Room, available at www.recycleroom.org, gives kids a forum for learning about steel recycling while having fun.

At the high school level, SRI’s *Cycles for Science* curriculum supplement assists teachers and students grades 9–12 in meeting state and local requirements for learning in biology, chemistry, general/earth science and physics. The curriculum meets educators’ needs for information on recycling, solid waste management and natural resource management. *Cycles for Science* was distributed to teachers at the ASM Materials Camp.

A strategic review of SRI’s vision and mission resulted in a “Vision 2009” strategy for increasing awareness of steel’s sustainable benefits in North America. In the next few years, more emphasis will be placed on updating and distributing informational materials for schoolchildren.



The Steel Recycling Institute was instrumental in persuading nationally recognized companies to include the steel recycling logo on their aerosol cans.



ROSCOE — Recycle Our Steel, Conserve Our Environment — is the official spokesman for the Steel Recycling Institute.



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Steel Recycling Report Card

STEEL RECYCLING REPORT CARD METRICS

The steel recycling accomplishments highlighted in this report show progress in selected market objectives as defined by the *Market Development Strategic Plan 2005–2009*. This program, administered by the Steel Recycling Institute, is the primary industry proponent for post-consumer steel recycling. Accomplishing post-consumer recycling objectives requires active engagement with both the environmental and recycling communities at the national and regional levels. The following metrics have been defined for this program:

- **Steel Recycling Rates:** The documentation of steel recycling volume and rates by industry and by markets.
- **Recycled Content:** The recycled content for end-market design.
- **Community Recycling:** The amount and percentage of communities with steel recycling capability (i.e. curbside, magnetic separation).
- **Energy Consumption:** The assessment of energy consumption for alternative designs and materials applications.
- **Steel Branding:** The establishment of steel as the most recycled material.

The following data provides a summary of the metrics demonstrating program progress and value.

MARKET PROFILE

Steel scrap recycled in U.S. (2005) = 76 million tons, 75.7% (highest ever)

Steel cans recycled in U.S. (2005) = 1.4 million tons, 63%

STEEL PROFILE

Curbside Recycling

Population served by curbside recycling of steel products: 203 million

Curbside programs including steel cans:	1990	40%
	2000	88%
	2006	94%

Steel Recycling Rates

	1988	1995	2002	2005
Overall Rates (Industry)	66.4%	68.5%	70.7%	75.7%
Appliances	20.4%	74.3%	86.6%	90%
Automobiles	**	96%	101%	102%
Steel Cans	15%	55.9%	58.5%	63%
Construction (reinforcement)	**	**	57.5%	65%
Construction (structural)	**	**	95%	97.5%

**Data not measured by SRI

STEEL RECYCLING PROGRAMS

Steel Recycling Database: Documented/Updated recycling database covering community programs.

Energy Study: Conducted research on energy to transport food products to consumers. Canned food is a more energy-efficient method for product delivery than fresh food (refrigeration) or frozen food.

Education/Training: Provided support for school science courses on environment and recycling.



TECHNOLOGY TRANSFER

Conferences

- Lieutenant Governors Association Conference
- Keep America Beautiful Annual Conference
- The Pennsylvania Great Cleanup Conference
- Northeast Recycling Council Conference
- Southeast Recycling Development Council Conference
- National Recycling Coalition Congress
- Institute of Scrap Recycling Industries Annual Exposition
- Various state recycling association conferences

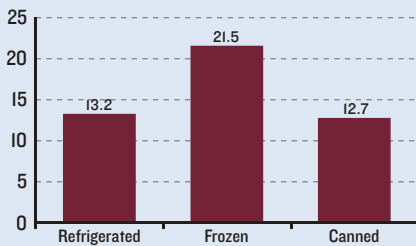
Seminars

- National Science Teachers Association
- National Association of Environmental Educators
- National Association for Educators of Young Children
- National Education Association
- National Head Start Association

Media Print: Over 76,000 impressions (2006)

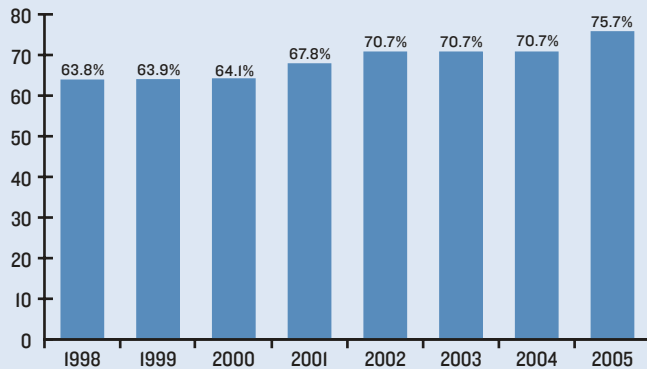
Web site www.recycle-steel.org: Web site sessions = 132,000 (2006)
www.recycleroom.org: More than 18,500 members (2006)

Energy Consumption for Food Delivery
MJ/kg



Source: Scientific Certification Systems

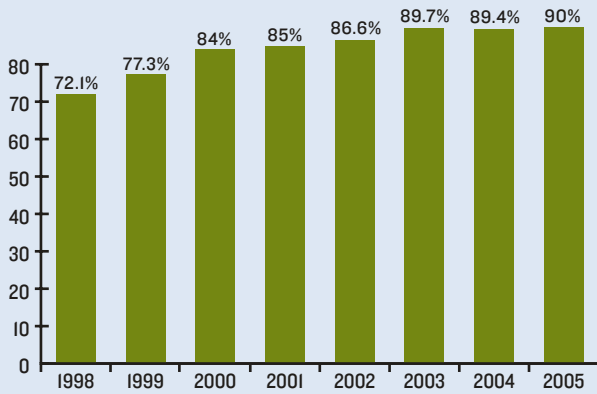
Overall Steel Recycling Rates



Source: Steel Recycling Institute (U.S. Recycling Rates)

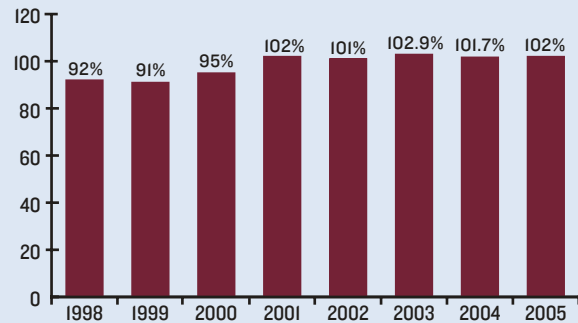
Appliance Recycling Rates

(In percent)



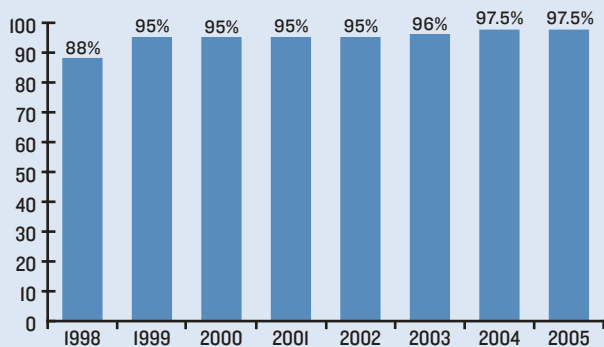
Automobile Recycling Rates

(In percent)



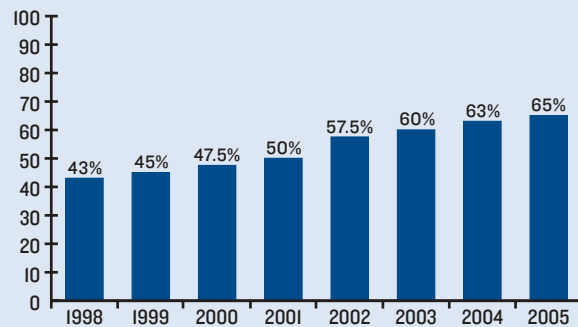
Construction (Structural) Recycling Rates

(In percent)



Construction (Reinforcement) Recycling Rates

(In percent)



Source: Steel Recycling Institute (U.S. Recycling Rates)