

**SOUTH CAROLINA
RECYCLING MARKET DEVELOPMENT
ADVISORY COUNCIL
2006
ANNUAL REPORT**

South Carolina Department of Commerce
1201 Main Street
Suite 1600
Columbia, South Carolina 29201
www.sccommerce.com

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- South Carolina Department of Commerce, Business Solutions Division
- South Carolina Department of Health and Environmental Control (SC DHEC) Office of Solid Waste Reduction and Recycling
- SC DHEC Center for Waste Minimization
- SC DHEC Small Business Environmental Assistance Program
- Keep the Midlands Beautiful
- South Carolina Manufacturing Extension Partnership
- Clemson University
- United States Environmental Protection Agency Region 4
- Carolina Recycling Association
- Sustainable Universities Initiative
- New Carolina–South Carolina’s Council on Competitiveness
- Sonoco Products Company
- Rubber Manufacturers Association
- *Columbia Business Monthly*
- U.S. Green Building Council’s South Carolina Chapter
- Southeast Recycling Development Council

South Carolina’s successful Recycling Market Development program would not be possible without the benefits of these partnerships.

INTRODUCTION

The Recycling Market Development Advisory Council (RMDAC) consists of 14 members, representing recycling companies, industry, local governments, higher education, and the general public. Established by the Solid Waste Policy and Management Act of 1991 and appointed by the Governor, the Council formulates programs and policies to encourage markets for new and existing recyclable materials. A list of RMDAC members can be found in Appendix A beginning on page 34.

Managed within the South Carolina Department of Commerce, the Recycling Market Development staff coordinates the activities of the Council while providing technical and economic development assistance to recycling businesses and industry.

Mission Statement

The Council's mission is to advocate opportunities to develop sustainable markets, support the growth of South Carolina's recycling industry, and advise the State on efforts required to increase recovery of recycled materials.

Guiding Principles

- To meet specific Council requirements contained in the Solid Waste Policy and Management Act of 1991.
- To assure existing and potential recycling businesses of a consistent, cost-competitive, quality supply of required recyclables.
- To identify existing barriers to and opportunities for increased recovery and use of recovered materials recycled within the State and take appropriate actions to eliminate or maximize these conditions.
- To monitor and understand the implications of institutional, economic, market and technical developments both in and out of the State that could measurably influence the generation and use of recyclables.
- To assist in the creation of jobs and investment of recycling industries in the State.
- To maximize the recycling rate within the State consistent with all appropriate environmental and economic considerations.
- To establish and maintain close working partnerships with allied State agencies and councils.

For additional information about the Council and its activities, please visit the South Carolina Recycling Market Development Advisory Council Web site at www.sccommerce.com/recycle.html.

EXECUTIVE SUMMARY

The Recycling Market Development Advisory Council (RMDAC) has had a long, established history of advising the Department of Commerce on the direction that recycling should take in the State. RMDAC helps to improve and increase the recovery of recyclable materials. The Council is working to address market needs, especially for new and emerging markets. In addition, the Council is working to define recycling as an economic cluster in South Carolina and to expand the growth of new and existing recycling businesses in the State.

RMDAC shares the Department of Commerce's commitment to protect the State's quality of life. This effort is achieved by working with new and existing businesses to lessen their environmental footprint by providing information and services that shape policies and practices affecting community growth and prosperity.

Staff within the Recycling Market Development program underwent a change in FY 2005–2006. In October 2005, Karen Owens, Manager, was promoted to a position within the Marketing and Communications division at Commerce and Ted Campbell, Senior Manager, was promoted to a position in January 2006 within the Global Business Development division. In March 2006, Chantal Fryer was hired as Senior Manager and in July 2006, Tonya Lott was hired as Manager for the Recycling Market Development program.

Economic Impact of the Recycling Industry in South Carolina

In conjunction with the South Carolina Department of Health and Environmental Control (DHEC), RMDAC commissioned a study to determine the economic impact of the recycling industry in South Carolina. The study, entitled the *Economic Impact of the Recycling Industry in South Carolina*, was conducted by College of Charleston economists Dr. Frank Hefner and Dr. Calvin Blackwell. The study reports that more than 300 recycling businesses in South Carolina contribute to an estimated \$6.5 billion in economic impact in the State. More than 37,000 jobs in South Carolina are attributed to the recycling industry and, over the next five years, recycling businesses are expected to grow approximately 12% annually.

Economic Impact of Recycling in SC

37,440 jobs
\$1.5 billion in personal income
\$6.5 billion economic impact
\$69 million state tax revenue
Projected 12% annual growth in next five years
Estimated total economic impact in five years = more than \$11 billion

The Council will utilize this study to help make the recycling industry a major economic engine for South Carolina and increase recycling awareness with business and industry.

A copy of the study's summary of results can be found in Appendix C on page 39 and a copy of the Department of Commerce's press release on the economic impact of recycling businesses can be found in Appendix D on page 40.

Partnerships and Sustainability

Developing and maintaining partnerships is a vital part of the Recycling Market Development Advisory Program. In 2006, the Recycling Market Development staff sustained its partnerships with DHEC's Office of Solid Waste Reduction and Recycling, Center for Waste Minimization and Small Business Environmental Assistance Program, the Sustainable Universities Initiative, the U.S. Green Building Council's South Carolina Chapter, Keep the Midlands Beautiful, Carolina Recycling Association, the U.S. Environmental Protection Agency Region 4, and the Southeast Recycling Development Council. In addition, partnerships were developed with the South Carolina Manufacturing Extension Partnership and New Carolina–South Carolina's Council on Competitiveness. All of these partnerships help to promote activities that encourage sustainable practices by the business community and government agencies.

In 2006, Recycling Market Development staff made presentations at DHEC's Back to Basics Workshop, Carolina Recycling Association's Commercial/Industrial Waste Assessment Workshop and the South Carolina Energy Symposium. The Recycling Market Development Program activities and achievements were featured in the *Columbia Business Monthly*, *Greater Pee Dee Business Journal*, *Charleston Regional Business Journal*, *Greenville News*, *Post and Courier*, *Times and Democrat*, *Waste News*, *TheItem.com*, and an EPA Region IV Fact Sheet. In addition, the 3rd Annual Recycling Business Forum was highlighted on Clemson University's *Your Day*.

The Council remains committed to sustaining and building partnerships in the recycling industry.

3rd Annual Recycling Business Forum and Awards held in Columbia



On October 13, 2006, RMDAC hosted its third annual Recycling Business Forum (RBF) at the South Carolina Archives and History Center in Columbia. RBF is an annual event that brings recycling businesses and other industries together and provides an opportunity for the exchange of current information and resources. Attendance at this year's forum included more than 100 participants. A copy of the Department of Commerce's press release on the Recycling Business Forum is provided in

Appendix E on page 41.

RBF provided information on recycling updates, funding and marketing resources, and emerging markets. In addition, staff led a roundtable discussion on Recycling Market Development issues. Staff compiled a list of these issues for RMDAC to examine and will provide an update at the next annual RBF as to how the issues are being addressed. A list of the Recycling Market Development Issues can be found in Appendix G on page 45. An awards ceremony was also held during RBF to recognize businesses and industries that made outstanding strides in waste reduction and recycling. The award categories were Best Small Recycling Company, Best Medium Recycling Company, Best Medium Industry Recycling Program, Best Large Industry Recycling Program, Recycler of the Year, Business Recycling Assistance Program (B-RAP) Partner of the Year, B-RAP Special Recognition, and Sustainability. A copy of the

Department of Commerce's press release on the Recycling Business Awards is provided in Appendix F on page 42.

South Carolina Leads U.S. in Recycling Tires

The Rubber Manufacturers Association (RMA) is the national trade association for the rubber products industry. RMA compiled a report ranking states on their overall performance of the management of waste tires, recognizing South Carolina with a Certificate of Environmental Excellence for achieving the highest performance ranking among all U.S. states for Waste Tire Management in 2005. The report indicates that of the states' 299 million scrap tires generated in 2005, 259 million went to end-use markets. The largest markets for waste tires include ground rubber, civil engineering and tire-derived fuel. According to RMA, since 1990, stockpiled waste tires are down 80% and nearly 87% of disposed tires are put to new uses each year. A copy of the Department of Commerce's press release on this national recognition is provided in Appendix I on page 47. RMA's 2005 waste tire report can be found at https://www.rma.org/publications/scrap_tires/index.cfm?PublicationID=11453&CFID=12849057&CFTOKEN=74667246.

RMDAC conducts an annual survey for waste tire recycling in South Carolina. This information is collected annually for use in reporting on the progress of tire recovery efforts, including available and potential markets. A copy of this survey is provided in Appendix L on page 52.

Additional Recycling Market Development Efforts

RMDAC supports policies and initiatives that encourage the sustainability and expansion of recycling markets. Determining and expanding recycling markets is a primary objective for the Council. The Recycling Market Development staff provides technical and economic development assistance to recycling businesses and other industries in the State to promote these recycling efforts.

The following is a list of RMDAC's 2006 accomplishments and initiatives. More detailed information on these accomplishments and initiatives are outlined in the Committee Reports section of this report, beginning on page 12.

- Secured additional funding for the program from DHEC through the development of a White Paper.
- Completed the study, *Economic Impact of the Recycling Industry in South Carolina*.
- Began efforts to coordinate statewide Recycling Cluster with the New Carolina–South Carolina's Council on Competitiveness.
- Received Certificate of Environmental Excellence for achieving the highest performance ranking among all U.S. states for Waste Tire Management in 2005.
- Received award for Outstanding Leadership in Support of Electronics Recycling.
- Assisted with the development of the new Smart Business Recycling Program.
- Created new jobs, increased capital investment in the recycling industry, and increased per capita wage rate.

- Created awareness of the role of the recycling industry through education and marketing.
- Created new recycling brochure.
- Developed GIS map of South Carolina's recycling businesses.
- Worked on drafting and supporting legislation for electronic waste, tax incentives and composting regulations.
- Helped position the recycling industry as an economic engine in South Carolina through the expansion of existing businesses, assisting with market development and helping with the startup of new recycling businesses.
- Maximized the State's recycling rate through the South Carolina Materials Exchange, online directory of recycling businesses, referrals and technical assistance, and by educating new industry locating in South Carolina, especially those with International Organization for Standardization (ISO) 14001 certification.
- Explored and developed emerging markets for recyclable materials such as waste-to-energy, industrial byproducts, construction and demolition, and electronics.
- Identified barriers to and opportunities for increased recovery for emerging markets in recyclable materials.
- Continued to update and enhance the online, searchable directory of South Carolina's recycling businesses located on the South Carolina Department of Commerce's Web site.
- Continued work with other states and industries to look at alternatives to increase the overall recovery rates for plastic bottles, aluminum cans, glass bottles and other recyclables.
- Raised awareness of the current state of recycling in South Carolina through various marketing strategies.

2007 GOALS AND OBJECTIVES

RMDAC has developed long- and short-term goals and objectives for 2007. For the long term, RMDAC will continue to build on its successes as brought to light in the *Economic Impact of the Recycling Industry in South Carolina* and other venues. Future goals for RMDAC include defining recycling as an economic cluster within South Carolina, and further marketing, outreach and research that will help expand recycling-related jobs, increase the capital investment in South Carolina's recycling industry and increase the per capita wage rate within the recycling industry. RMDAC's focus is to determine what markets are not being met by South Carolina's recycling industry and help expand industry recycling through its initiatives. These goals fit well with the Department of Commerce's efforts to recruit world-class companies and enhance investment recruitment in South Carolina. These goals also provide opportunities for the startup of new businesses and for the expansion of existing businesses through increasing and/or expanding South Carolina's tax base.

RMDAC's short-term goals include providing additional research on markets not yet being served by South Carolina's recycling industry, identifying industrial byproducts, exploring emerging recycling technologies as business opportunities and providing technical assistance through the B-RAP/Smart Business Recycling Program. In addition, RMDAC will recruit new recycling businesses through the development of incentives for recycling companies and create expansion opportunities for existing recycling companies based on targeted research.

Additionally, Recycling Market Development staff will continue to work with business and industry in South Carolina to assist them with their recycling needs as well as raise awareness about recycling's benefits, such as reduced disposal costs, the value of recycled materials as a commodity, and the benefits to the economy and the environment. Staff will focus on assisting existing recycling businesses with their expansion opportunities and help new recycling startups overcome any barriers to establishing themselves as a South Carolina business.

2006 PROGRAM INITIATIVES

The goals and objectives in last year's annual report are detailed below. To help define its 2006 work plan, RMDAC utilized support from its three committees. The Executive Committee is charged with providing guidance, reviewing objectives and participating on other RMDAC committees. The Executive Committee consists of the RMDAC Chair, Vice Chair and staff. The Policy and Strategic Initiatives and the Recycling Business and Economic Development committees are responsible for carrying out the activities related to the key areas of focus for the Council. These committees were created to address policy, market development issues, and new and emerging markets. The committees consist of Council members and staff, with the support of DHEC's Office of Solid Waste Reduction and Recycling staff.

2006 Goals and Objectives

Executive Committee

- Define recycling as an economic cluster in South Carolina.
- Further marketing, outreach and research that will help expand recycling-related jobs.
- Increase the capital investment in South Carolina's recycling industry.
- Increase the per capita wage rate within the recycling industry.

Executive Committee Members

Gerry Fishbeck, *RMDAC Chair, United Resource Recovery, Corporation*
Ronnie Grant, *RMDAC Vice-Chair, Sonoco*
Chantal Fryer, *Staff*

Policy and Strategic Initiatives Committee

- Identify budget needs and support efforts to secure adequate funding.
- Implement recycling business and industry incentives including tax reduction and grant funding.
- Recruit new recycling businesses through the development of incentives and create expansion opportunities for existing recycling companies based on targeted research.
- Ensure Council alignment with the Department of Commerce and economic development.
- Identify best practices to advance RMDAC's mission, particularly in the area of increasing the recovery of recyclable materials.
- Ensure that relevant issues are regularly communicated between DHEC and RMDAC.
- Engage South Carolina's recycling industry as advocates.

Policy and Strategic Initiatives Committee Members

Kay Clamp, *Chair*
Gerry Fishbeck, *URRC*
Steve Padula, *Michelin*
Roger LeDuc, *City of Aiken*
Norman Chandler, *Allied Waste*
Donna London, *Clemson University*
Vic Carpenter, *Anderson County*
Chantal Fryer, *Staff*

Recycling Business and Economic Development Committee

- Identify markets not being served by South Carolina's recycling industry.
- Identify industrial byproducts, energy and other emerging recycling technologies as business opportunities.
- Determine what markets are not being met by South Carolina's recycling industry and help expand industry recycling through its initiatives.
- Pursue additional funding to reach short-term goals of providing further research on markets not being served by South Carolina's recycling industry.

South Carolina has more than 300 recycling businesses that are attributed to sustaining over 37,000 jobs. The Council continues to track the growth and prosperity of these recycling businesses that help boost the state's economy with an economic impact of \$6.5 billion. A list of some of South Carolina's recycling businesses is provided in Appendix B beginning on page 36 and a map of South Carolina's industrial recycling businesses is provided in Appendix K on page 51.

Recycling Business and Economic Development Committee Members

Haskell Grant, *Chair, Milliken and Company*

Chris Fisher, *Fisher Recycling*

Steve Carreras, *Recycle America Alliance*

Ronnie Grant, *Sonoco*

Cheryl Kirkland, *Alcoa Mt. Holly*

Phil Ammons, *Plastics Provider*

Art Levy, *Carolinas Recycling Group*

Tonya Lott, *Staff*

EXECUTIVE COMMITTEE

Mission

The Executive Committee assists RMDAC by providing guidance, reviewing objectives and participating on other committees.

2006 Objectives

Goal: Position South Carolina's recycling industry as competitive, viable participants in the development of jobs and economic development.

- Coordinate Recycling Cluster Initiative.
- Promote sustainability among South Carolina's recycling businesses.
- Focus on the impact of recycling in job development.
- Support the economic development function of the recycling industry.

The Executive Committee's accomplishments for 2006 include:

- Secured Sonoco Products as the anchor company for the Recycling Cluster Initiative.
- Secured New Carolina–South Carolina's Council on Competitiveness to assist with efforts of the Recycling Cluster Initiative.

POLICY AND STRATEGIC INITIATIVES COMMITTEE

Mission

The Policy and Strategic Initiatives Committee assists RMDAC by implementing strategic market development policy and programs through legislative, governmental and private sector initiatives.

2006 Objectives

Goal: Obtain legislative champions to support RMDAC and the recycling program statewide.

- Investigate and summarize current electronic legislation.
- Educate policy-makers on RMDAC and work with legislative committees to familiarize them with South Carolina's recycling industry.
- Investigate changing RMDAC legislation language to reflect a later due date for its Annual Report so that it coincides with DHEC's due date, March 15, for their Solid Waste Management Annual Report.

- Further investigate changes to legislation to add new representatives to RMDAC to represent electronic waste, construction and demolition, and the carpet industry.
- Investigate incentives for new recycling businesses and expansions.
- Conduct research to recruit new businesses and expand recycling opportunities to use industrial byproducts.
- Provide research of best methods to expand tax incentives to include recycling businesses.
- Conduct a study to determine best-benchmarked methods to fund recycling startups or expand existing businesses such as through grants or a low-interest revolving loan program.
- Conduct a study on recycled materials and their use in creating alternative fuels such as ethanol and biodiesel, targeting energy recovery use for certain grades of recyclables such as odd plastics and biomass.

The Policy and Strategic Initiative Committee's accomplishments for 2006 include:

- Assisted in the development of the study, *Economic Impact of the Recycling Industry in South Carolina*.
- Drafted a White Paper that outlined the future direction of the Recycling Market Development Program and RMDAC activities.
- Secured additional funding from SC DHEC through the Solid Waste Trust Fund to assist with RMDAC research and other program efforts.
- Provided South Carolina legislators with information on electronic waste recycling.
- Worked with the Department of Commerce's legislative liaison to update the Commerce legislation in Section 13-1-380 (C) and (G) as well as any references in the Solid Waste Policy and Management Act in Title 44, Chapter 96.

RECYCLING BUSINESS AND ECONOMIC DEVELOPMENT COMMITTEE

Mission

The Recycling Business and Economic Development Committee works to facilitate the recovery of established recycling commodities for reuse. This committee encourages the increased collection and use of these materials, and looks at ways to overcome barriers to markets.

2006 Objectives

Goal: Increase recovery and reuse of recyclable materials in South Carolina.

- Identify ex-officio representatives to serve on RMDAC and provide input in new and emerging markets such as electronic waste and construction and demolition.
- Work with the Policy and Strategy Committee to recommend changes to RMDAC legislation for new industry representation on the Council.
- Pursue recycling agricultural waste into biodiesel.
- Explore opportunities with the S.C. Carolina Energy Office and the S.C. Biomass Council.
- Investigate research projects.
- Investigate ways to boost glass recovery and encourage electronic waste recovery.

The Recycling Business and Economic Development Committee's accomplishments for 2006 include:

- Examined electronic waste recycling by researching information on Goodwill Industry's PC Recycling Center.
- Investigated Resource Conservation Recovery Act (RCRA) hazardous waste regulations to determine how they affect electronic waste collectors.
- Secured presenter from the S.C. Energy Office to discuss the S.C. Biomass Council in an effort to pursue recycling agricultural waste to diesel.
- Secured presenter from Green Energy Corp to discuss the conversion of agricultural film to diesel.
- Secured presenter from Shaw/Evergreen Carpet to discuss the carpet industry and its Evergreen Nylon facility in Augusta, Georgia.

RECYCLING MARKET DEVELOPMENT STAFF ACTIVITY

The Recycling Market Development (RMD) program functions within the Business Solutions Division at the Department of Commerce. The staff promotes market development for recycled materials, assists with startup efforts for recycling companies, helps existing companies with their expansions, and provides technical assistance to business and industry with their efforts to reduce waste streams and increase the amount of materials recycled.

Staff within the Recycling Market Development program underwent a change in FY 2005–2006. In October 2005, Karen Owens, Manager, was promoted to a position within the Marketing and Communications division at Commerce and Ted Campbell, Senior Manager, was promoted to a position in January 2006 within the Global Business Development division. In March 2006, Chantal Fryer was hired as Senior Manager and Tonya Lott was hired as Manager for the Recycling Market Development program in July 2006.

One of the first activities completed by staff was a White Paper outlining the future direction of the Recycling Market Development program and RMDAC activities, and

requesting additional funding from DHEC through the Solid Waste Trust Fund. The White Paper was reviewed and accepted by DHEC and the RMD program received additional funding required to carry out its activities for 2006–2007 and beyond.

RMDAC staff received 90 requests for assistance from businesses, industries, government agencies and the general public. RMDAC staff followed up on all these requests and assistance was provided through the South Carolina Business Recycling Assistance Program. The staff provided business development, recycling, waste reduction, marketing, financial, and regulatory assistance.

It is important to note that during the transition of RMD staff, business assistance data was not consistently tracked, so three months of data are not incorporated into the final amounts of assistance provided. In addition, staff developed a new tracking methodology to eliminate and reduce duplication.

In 2006, an estimated \$844.4 million and more than 850 jobs were attributed to recycling-related investments. These numbers reflect the establishment of new businesses and industry as well as the expansion of existing business in South Carolina.

Economic Impact of the Recycling Industry in South Carolina

In conjunction with South Carolina DHEC, RMDAC commissioned a study to determine the economic impact of the recycling industry in South Carolina. The study, entitled *Economic Impact of the Recycling Industry in South Carolina*, was conducted by College of Charleston economists Dr. Frank Hefner and Dr. Calvin Blackwell. The study reports that more than 300 recycling businesses in South Carolina contribute to an estimated \$6.5 billion in economic impact in the State. More than 37,000 jobs in South Carolina are attributed to the recycling industry and, over the next five years, recycling businesses are expected to grow approximately 12% annually.

Economic Impact of Recycling in S.C.

37,440 jobs
\$1.5 billion in personal income
\$6.5 billion economic impact
\$69 million state tax revenue
Projected 12% annual growth in next five years
Estimated total economic impact in five years = more than \$11 billion

The *Economic Impact* study was prominently featured in an Environmental Protection Agency (EPA) Region 4 Fact Sheet on the economics of recycling in the Southeast Region. Other media, such as the *Charleston Regional Business Journal*, featured an article regarding the economic impact of recycling. Dr. Hefner made a presentation at the Carolina Recycling Association conference in March 2005 regarding the study as well as presenting information regarding recycling's economic impact in September 2006 at the S.C. Economic Developers Association Fall meeting.

3rd Annual Recycling Business Forum

On October 13, 2006, the 3rd Annual South Carolina Recycling Business Forum was held at the South Carolina Archives and History Center in Columbia, S.C. More than 100 representatives from recycling businesses and industry attended the forum, up from approximately 65 participants in 2005. Information on recycling updates, funding and

marketing resources, and emerging markets were presented. Speakers at the RBF were representatives from the S.C. Legislature, DHEC, Department of Commerce, EPA Region 4, S.C. Biomass Council, United Resource Recovery Corporation, Sonoco, Carolina Recycling Association, U.S. Department of Agriculture, WLOS/WMYA, S.C. Manufacturers Extension Partnership, and Global Investment Recovery, Inc. Ten recycling companies from around the State exhibited at the event.

RBF also featured an awards ceremony that recognized South Carolina businesses and programs that have made outstanding strides in waste reduction and recycling.

Recycling issues were discussed by recycling business and industry representatives, and were recorded by RMDAC for future activity and consideration. Seven RMDAC members attended the event as well as

Recycling Business Forum Awards

Sunshine Recycling, Inc. — Best Small Recycling Company

Global Investment Recovery — Best Medium Recycling Company

Diversified Recycling, Inc. — Recycler of the Year

Fujifilm-Pucketts Facility — Best Medium Industry Recycling Program

Michelin-Spartanburg Facility — Best Large Industry Recycling Program

Cleanlites Recycling, Inc. — B-RAP Partner of the Year

Roche Carolina — B-RAP Special Recognition

Alcoa Mt. Holly — Sustainability Award

several representatives from the Business Solutions division at the Department of Commerce. In addition, DHEC's Office of Solid Waste and Recycling staff was on hand to report activities and participate in the Forum. A survey was distributed to attendees and results from the survey demonstrate the satisfaction with the Forum. A copy of the Recycling Business Forum evaluation is provided in Appendix H on page 46.

Overall, the participants strongly agreed that RBF was an appropriate use of their time, useful and informative information was provided, new contacts and opportunities for future collaboration were generated, speakers were knowledgeable, meeting time was convenient and an appropriate length, and that they would be interested in attending a future event.

Recycling Cluster Initiative

The Recycling Cluster is an initiative being undertaken by RMDAC and staff to promote the recognition of recycling as a vibrant industry with a \$6.5 billion economic impact in South Carolina. The development of the Recycling Cluster will help position recycling businesses as competitive, viable participants in the development of jobs, retaining local community employers, generating additional tax revenues and expanding economic development opportunities. Sonoco Products, a global packaging company that uses recycled content, is the anchor company for the Recycling Cluster. RMDAC and staff work collaboratively with New Carolina-South Carolina's Council on Competitiveness to help establish the Recycling Cluster. The Cluster will establish goals and objectives for accomplishment as it gets underway.

Online directory of recycling businesses

Staff continue to utilize the online recycling business directory to assist businesses, government agencies and other organizations interested in promoting recycling and

waste reduction. The online searchable directory is a compilation of more than 300 South Carolina recycling businesses and is updated on an ongoing basis. The online directory provides contact information, business type (hauler, manufacturer, processor, broker), materials accepted or collected by category, and any additional material handled by the recycling business. The number of recycling businesses in the online directory continues to grow as staff maintains and updates the database through the addition of new businesses. The online business directory is located at <http://www.sccommerce.com/SearchRecycling.aspx>. Recycling Market Development and DHEC staff use the directory to match companies that have materials to recycle with S.C. recycling businesses.

South Carolina Smart Business Recycling Program

The South Carolina Smart Business Recycling Program previously known as the South Carolina Business Recycling Assistance Program (B-RAP) provides free, confidential, non-regulatory technical assistance on recycling, waste reduction, beneficial reuse and other ways for businesses to conserve resources and improve their bottom line. The program offers site visits, waste assessments, market assistance, educational materials, staff training, and other services. It is a partnership between RMDAC and DHEC's Office of Solid Waste Reduction and Recycling, Center for Waste Minimization, and Small Business Environmental Assistance Program. Partners participated in several meetings to discuss the development and launch of the Smart Business Recycling Program. The Smart Business Recycling website is located at www.scdhec.gov/smartbusiness, but is currently under construction.



Recycling. It doesn't cost. It pays!

The partners also continue to be engaged in the production of educational materials such as fact sheets and posters and enhancing the South Carolina Materials Exchange. This free, web-based service seeks to reduce waste by facilitating the exchange of reusable materials by businesses, non-profit institutions and government agencies. It also helps maximize the state's recycling rate. The South Carolina Materials Exchange can be accessed at www.scdhec.gov/scme.

Staff provided assistance to 90 businesses in 2006 through the B-RAP/Smart Business Recycling program. An example of the business assistance staff provided is as follows. Staff provided assistance to a recycling business seeking assistance with ISO 9001 Certification. Through the B-RAP/Smart Business Recycling Program, staff put the business in contact with the SC Manufacturers Extension Partnership. Through this cooperative effort, the SC Manufacturer Extension Partnership will work with the business to implement an ISO 9001 program at no cost that will save the company approximately \$9000.

Staff provided assistance to a recycling business seeking assistance with ISO 9001 Certification. Through the B-RAP/Smart Business Recycling Program, staff put the business in contact with the SC Manufacturers Extension Partnership. Through this cooperative effort, the SC Manufacturer Extension Partnership will work with the business to implement an ISO 9001 program at no cost that will save the company approximately \$9000.

Staff provided assistance to a recycling business seeking assistance with ISO 9001 Certification. Through the B-RAP/Smart Business Recycling Program, staff put the business in contact with the SC Manufacturers Extension Partnership. Through this cooperative effort, the SC Manufacturer Extension Partnership will work with the business to implement an ISO 9001 program at no cost that will save the company approximately \$9000.

Mercury Lamp Recycling Outreach Grant

Staff managed a grant in the amount of \$50,000 in EPA funding to B-RAP for mercury lamp recycling outreach to businesses with partners DHEC and the University of South

Carolina. Major marketing and outreach efforts included focus on the tanning bed industry, public sector entities such as State agencies, school districts and local governments. Fact sheets and posters were distributed to more than 1,200 businesses in the State and a one-day amnesty collection in Aiken, S.C. at Home Depot facilitated fluorescent bulb collection.

More than 20 presentations on the potential environmental and public hazards of the improper disposal of mercury lamps were given to businesses and organizations. Four public service announcements on mercury lamp recycling were broadcast throughout the State.

This outreach program awarded four mini-grants to assist in the establishment of new mercury lamp recycling programs at county municipal recycling centers. The City of Rock Hill, Dorchester, Georgetown and York Counties were the grant recipients. Through these mini-grants, these local governments were able to receive collection boxes and educational/promotional materials and assistance.

A follow-up survey was conducted with the recipients of the mini-grants to determine the effect the mercury lamp recycling program had on the area's recycling rate, the causes of any decrease in lamp recycling, and whether or not the mini-grant program was considered beneficial in initiating mercury lamp recycling.

The results of the survey indicated the following: The City of Rock Hill, Georgetown and York counties experienced problems with the handling, storage and transportation associated with the collection boxes as lamps were often broken. In addition, keeping the cardboard collection boxes dry and intact became issues as well. York County devised a solution to these problems by storing the collection boxes in recycled paint storage buildings, which reduced degradation and breakage.

Even though the City of Rock Hill saw a decrease in the lamp recycling rate since the initiation of the program, the City continues with its mercury lamp recycling efforts. Georgetown County has discontinued its mercury lamp recycling program. York County developed a very successful mercury lamp recycling program. In 2006, the County reported a tenfold increase in its recycling rate for tube lamps versus 2005. York County utilized all of the collection boxes received from the mini-grant and is ordering a new supply. York County is expanding the program by collecting lamps at 16 convenience centers.

Dorchester County did not respond to the survey.

Southeast Recycling Development Council

The mission of the Southeast Recycling Development Council (SERDC) is to unite industry professionals, government agencies and individuals engaged in the business of recycling to foster communication among these groups, promote sustainable recycling programs, and coordinate educational and public awareness activities related to recycling.

Eleven states comprise SERDC, and South Carolina is one of those states actively involved in this coalition

SERDC State Membership
1. Alabama
2. Arkansas
3. Florida
4. Georgia
5. Kentucky
6. Louisiana
7. Mississippi
8. North Carolina
9. South Carolina
10. Tennessee
11. Virginia

to help develop and promote sustainable recycling programs. SERDC's goals include increasing the collection and recovery of quality recyclable materials, fostering economic development opportunities via the recycling industry, creating greater awareness of the recycling industry's impact on the Southeast region and participating in any activities that support the council's mission.

RMDAC staff is involved in various committee activities and serves on SERDC's Board of Directors.

Other Activities and Achievements

RMDAC staff also attended the National Recycling Coalition's 25th Annual Congress & Expo held in Atlanta, Georgia and the Byproducts Beneficial Use Summit held in San Francisco, California. These conferences helped staff gain knowledge on recovery rates, markets, economics, rural and industrial recycling, and byproduct reuse. Staff also had the opportunity to network, which is beneficial toward building new partnerships.

RMDAC staff are active members and participants of the following organizations and councils:

- Carolina Recycling Association
- Carolina Recycling Association Midlands Networking Council
- National Recycling Coalition
- South Carolina Economic Developers' Association
- Southeast Recycling Development Council
- South Carolina Resource Conservation Challenge Task Force
- South Carolina Solid Waste Association of North America
- Solid Waste Advisory Council
- South Carolina Waste Tire Committee
- National Brownfields Association — S.C. Chapter
- U.S. Green Building Council — S.C. Chapter

Staff also developed a recycling brochure which outlines the Recycling Market Development Program's mission, RMDAC, economic impact study, Recycling Cluster, sustainability efforts, map of South Carolina's recycling businesses, and the B-RAP/Smart Business Recycling Program. This brochure is a marketing tool staff will utilize to help promote education and increase awareness about South Carolina's recycling industry.

Staff also continue to work with other states, industries and other partners to evaluate alternatives to increase the overall recovery rates for plastics, aluminum and glass. They also continue to collaborate in identifying barriers to and opportunities for increased recovery for emerging markets in recyclable materials.

Awards

The Recycling Market Development program (RMD) received a Certificate of Environmental Excellence for Scrap Tire Management from the Rubber Manufacturers Association (RMA). This award brought national recognition to South Carolina as RMA reported that South Carolina achieved the highest performance ranking among all U.S.

states for waste tire management. RMD also received an award from Global Investment Recovery, Inc., for “Outstanding Leadership in Support of Electronic Recycling.” This award conveys RMD’s commitment to develop markets for emerging recyclables such as electronic waste.

REQUIREMENTS OF THE 1991 SOLID WASTE ACT

The Solid Waste Policy and Management Act of 1991 requires that the Recycling Market Development Advisory Council consider the following elements in its annual report.

Any Revisions Which the Council Determines are Necessary to its Initial Report

There are no revisions to be added at this time.

A Description and Analysis of the Amounts and Types of Solid Waste Materials Recovered or Recycled in This State During the Preceding Year

Recommendations Regarding Materials Which Should be Added or Deleted From Source Separation, Recovery and Recycling Programs

Electronic waste and construction and demolition debris should continue to be promoted as recyclable materials and emerging markets.

Recommendations, Including Tax Incentives, to Facilitate the Development of Markets for Recovered Materials or Products in This State

Exempt recycling equipment from local property taxation.

Tax incentives are an important tool in maintaining and attracting new jobs and investment in S.C. Manufacturing operations, which include certain recycling companies, are eligible for the existing statutory incentives based on job creation and investment, but some recycling processors may not be eligible for these incentives. A proposal to encourage investment and job creation among these recycling businesses should be considered.

With transportation costs on the rise, the need to expand local markets is becoming even more important. Some recovered materials still go to out-of-state markets and the higher gas prices are cutting even further into the already tight profit margins, possibly resulting in a disincentive to recycle these commodities. Tax incentives will encourage growth of new and existing recycling companies in South Carolina and expand local markets for recyclable materials.

In South Carolina, pollution control equipment is exempt from property taxes. State and federal environmental regulations require a company install this equipment to control air, water and landfill emissions. Other states have similar incentives but the definition includes a broader range of equipment for environmental protection purposes. For example, North Carolina exempts real or personal property used exclusively for recycling or resource recovery of or from solid waste from property tax. Expanding South Carolina's definition of pollution prevention equipment to include recycling equipment will help encourage the growth of recycling businesses.

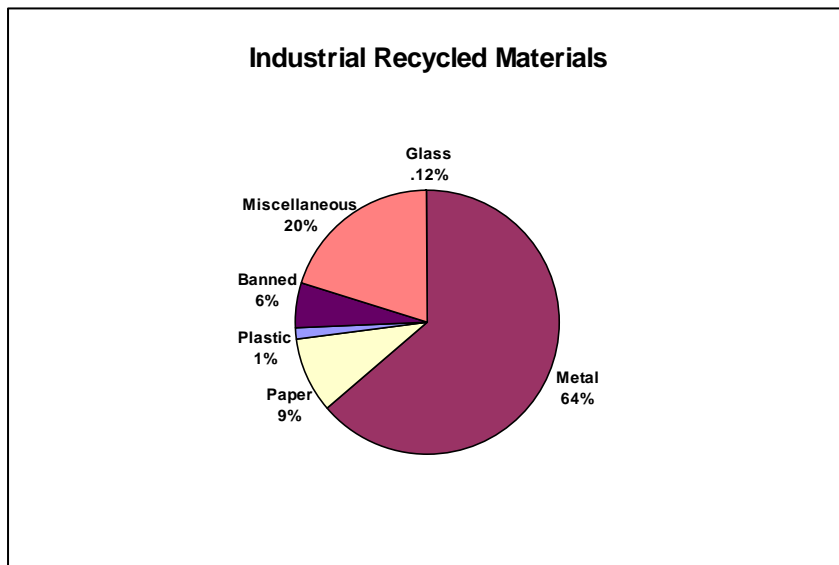
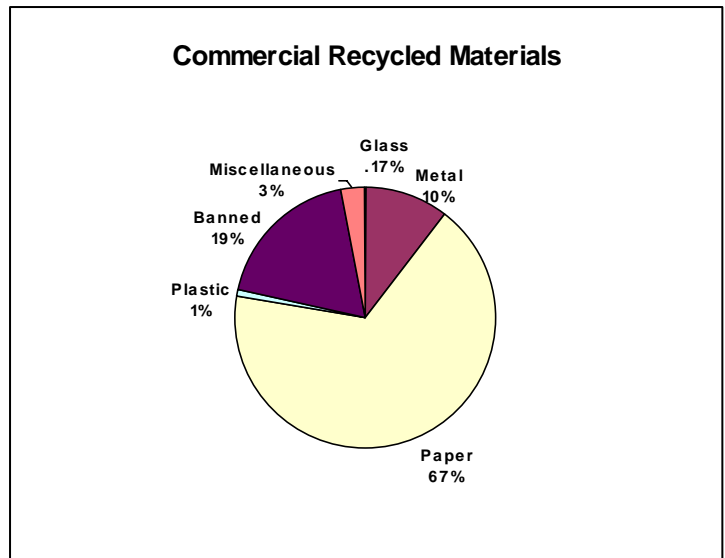
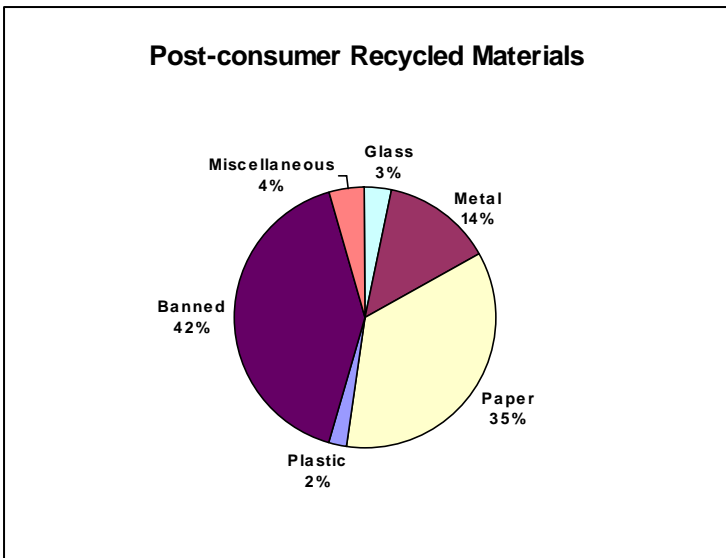
Other industry sectors would benefit as well. Recycling incentives would encourage companies to invest in research and development of technology, as well as basic equipment, to recycle their waste and byproducts. These companies can become more competitive by lowering their waste disposal costs and potential liability. Some investment returns may include:

- Job creation and investments through growth of recycling industries.
- Improve bottom line for recycling businesses.
- Stimulate supply and demand for recyclable materials.
- Encourage other South Carolina industries to invest in recycling equipment and technology.
- Help manufacturers use lower cost raw material.
- Help ISO-rated companies achieve environmental and sustainable goals.
- Save energy and conserve natural resources.

CONSUMER, COMMERCIAL AND INDUSTRIAL RECYCLING

In October 2000, the South Carolina Solid Waste Management Act amended the recycling and disposal goals. The recycling goal was changed to 35 percent of the municipal solid waste stream (MSW) and the disposal goal was changed to 3.5 pounds of MSW per person per day. Each of these goals was to be met by June 30, 2005. In 2006, South Carolina had a recycling rate of 30.4 percent and a disposal rate of 4.4 pounds per day. A current proposal to the State's Solid Waste Management Act recommends that attainment of these goals be met by June 30, 2012.

Approximately 6.5 million tons of total solid waste were recycled in 2006. Of this amount, the majority stemmed from processing or manufactured waste. The following charts illustrate 2006 post-consumer, commercial and industrial recycled materials.



MARKETS UPDATE

Industry representatives on the Recycling Market Development Advisory Council provide the following markets updates. These include the primary commodities typically recovered in most municipal and county recycling programs as follows:

Glass	clear, brown, green
Paper	newspaper, corrugated
Plastics	PET, HDPE — clear and pigmented
Metal	ferrous and nonferrous metals
Used Oil	oil, filters, bottles
Tires	

Each update will consist of the following four sections, which includes comments on the basic market factors of supply, demand and pricing for each recovered material.

2006 Summary

The summary section consists of a discussion on major changes in supply, demand and pricing for this material that have occurred during the past year. This discussion includes both national and State perspectives with explanations of significant differences between the two.

2007 Outlook

The outlook section forecasts for the coming year and circumstances impacting supply, demand and pricing for the material relative to 2005 conditions.

Future Trends

The future trend section consists of a discussion of long-term trends in supply, demand and pricing beyond 2005.

RMDAC Action

The RMDAC Action section consists of actions that this Council should consider to improve market factors.

GLASS

2006 Summary

Glass collected in South Carolina for recycling is sent to two regional processors — Strategic Materials in Georgia and Container Recycling Group in Raleigh, NC. Market demand has been steady, with prices averaging at \$35 per ton for clear, \$27 per ton for brown and \$10 per ton for green. Container Recycling Group also accepts unsorted three-mix glass in Raleigh. The charge for this mix is dependent upon the level of quality.

2007 Outlook

Glass demand in the Carolinas and around the country will be strong this year for all colors. Energy prices are driving glass plants to use more cullet, which is good for market demand. Instead of stockpiling glass, recyclers should be able to move all grades on a regular basis. Unfortunately, higher demand does not translate into higher prices. Steady demand for recycled glass will continue throughout 2007.

Pricing or tip fees for commingled glass should not change year to year. There are no closings scheduled for bottle plants in the Southeast. Most, if not all, plants are sold out for the entire year. No new plants are scheduled to open.

Future Trends

In terms of new markets, the fiber glass industry has taken a renewed interest in recycled glass. This is mainly due to high fuel and energy costs. The downside to the fiberglass market is the requirement for higher quality material. There are always specialized players that propose to make concrete blocks, floor tile, countertops or other products out of glass cullet. So far they have been very small players with low demand and lower prices.

RMDAC Action

RMDAC should continue to support programs that increase the overall recovery rate of recyclables in South Carolina as well as encourage communities to look at alternative markets for recovered glass.

PAPER

2006 Summary

The market for old corrugated cardboard started the year at \$55 per ton and dropped to \$50 per ton in February. This decline was due to low domestic and export demand. The market increased to \$55 per ton in March. By June, the market was at \$85 per ton. Due to increases in domestic and export demand, the market increased to \$100 per ton in July. By August, the market dropped back to \$90 per ton. The market leveled out at \$65 per ton during November and December.

Demand for newsprint remained stable almost all year. Newsprint started the year at \$70 per ton. A decline in May put the market at \$65 per ton through August. An increase in September placed the market at \$75 per ton. The market finished the year at \$85 per ton.

The mixed paper market is growing in demand and pricing is holding steady. The low for the year was at \$35 per ton and the high was \$55 per ton. The mixed paper market closed the year at \$45 per ton.

Office fiber had a very strong year starting at \$100 per ton. It dropped to \$95 per ton in February and held at that price through May. By July, the market was at \$115 per ton. By September, the market was at \$125 for the rest of the year.

2007 Outlook

The market for old corrugated cardboard could start to climb after the holidays as domestic mills will run strong through the holidays. This result will decrease inventories and, if several winter storms develop, the market should hit \$100 per ton by the start of the second quarter of 2007. China now leads the world in demand for cardboard and will continue throughout 2007 with India following as their economy continues to leap forward.

Newsprint is staying in strong demand since it is being added to mixed paper despite declining US sales and readership. China is scooping up almost one-third of North American newsprint to recycle it in its own mills. Strong demand on the domestic front will help keep pricing for this grade at the \$75 per ton range or better.

The reason for the growth of mixed paper is due to the high demand for old corrugated cardboard around the world. Any type of paper is allowed in this grade. A lot of domestic mills use this grade as a filler to help reduce their consumption of cardboard. This grade is easy for curbside programs to generate and does not require sorting. Export demands on other grades will keep this grade around for a very long time domestically.

Office fiber will remain in strong demand as it is used in the manufacturing of tissue. It will be in stronger demand as China and India move forward with their development as world leaders. Mixed paper also hurts the collecting of this grade because of what is allowed in mixed paper versus office fiber.

Future Trends

Export demand will remain strong throughout 2007 for all grades. This demand will get stronger as they add additional machines for paper making. North Carolina has plans to add dock capacity in Southport, N.C. Domestic mills will react by using more and more fiber substitution as the world demand for old corrugated boxes gets stronger. As always, major winter storms can cause major spikes in the marketplace.

RMDAC Action

RMDAC will work on legislation to increase the recycling numbers in the State. RMDAC will also continue to work closely with DHEC and the Carolina Recycling Association to increase collections and to develop new markets. DHEC is considering a "virtual ban" on cardboard since it is still prevalent in the waste stream and is ending up in landfills around the State.

PLASTICS

2006 Summary

PET Summary

According to recently published 2005 recycling rates from NAPCOR, 1,170 million pounds of PET bottles were recycled out of 5,075 million pounds sold for a recycling rate of 23.1%. The rate rose 1.5% from 2004 recovery levels. Gains in bottle supply were attributed to strong sales growth in still water and isotonic beverages as well as increased introductions of single serve wine products.

Demand continued to grow for recycled PET bottles during 2005. U.S. reclaimers increased their purchases by 50 million pounds to 681 million pounds. Export buyers increased their purchases by 117 million pounds to 489 million pounds. U.S. reclaimers continued to supplement their domestic purchases by importing a record 109 million pounds.

2007 PET Outlook

Demand is remaining strong for the year with a brief slowdown during fourth quarter as Wellman exited the recycling arena in the U.S. Strong export growth, however, continues to absorb any excess supply quickly. Demand continues to grow from strapping and sheeting. In addition, further RPET demand has been fueled by recycled content requirements in California and the green initiatives by major retailers.

HDPE Summary

HDPE also increased to 904.2 million pounds recycled out of 3,486 million pounds sold for a recycling rate of 25.9% in 2004. Total recycled pounds increased 81 million pounds over 2003. Non-food bottles led uses in the domestic market for recycled HDPE at 41% followed by piping at 21% according to APC.

Demand far outstripped supply during 2005. The damage to HDPE capacity by hurricanes put further pressure on shortages of raw material for recycled markets. Exports remained less of a presence with the majority of demand coming from domestic recyclers.

2007 HDPE Outlook

Demand will continue to far outstrip supply as further growth is expected in packaging, plastic lumber and automotive applications. Pigmented PET in colors as a contaminant is still a major issue to quality production in 2006.

Future Trends

Further consolidation is occurring in the PET industry. Eroding margins due to cheaper imported products from Asia will continue to pressure margins on traditional recycled products as well as virgin. The growth in overall demand for recycled products both domestically and for export will continue to far outstrip supply. Focus on increasing supply by recycling processors, State and federal government agencies and the beverage industry must remain a high priority.

RMDAC Action

RMDAC will continue to work closely with DHEC and the Carolina Recycling Association to increase collections and develop new markets.

FERROUS METAL

2006 Summary

For the third consecutive year, ferrous metal showed considerable strength with prices remaining above historical averages. There was less volatility than 2004–2005 as higher prices for scrap became a cost variable that steel mills could manage.

Prices maintained a steady increase for the first half of the year before cooling off during the second half amid concerns over a weaker domestic economy, especially in the automotive sector. The real catalyst for much of 2006 was the demand for prime industrial grades of ferrous scrap metal. Steel mills that use this premium material to make sheet metal for cars and other flat products drove the price for scrap up or down as business conditions changed. Obsolete grades of scrap were relatively flat for the year as there was ample supply and enough offshore demand to keep domestic prices firm.

Higher scrap prices had more staying power in 2006. In today's marketplace, steel mills can adjust their surcharges each month. The cost of scrap has become one that can be absorbed into the price for finished goods on a real-time basis. Steel producers used to suffer through annual fixed contracts that essentially locked the raw material cost but now these costs can be adjusted monthly and have been accepted at the higher levels.

2007 Outlook

Given the three-year trend and scrap surcharges, the expectation is that prices for ferrous metal will remain strong in 2007. Weaker economic conditions and resulting weaker demand pose the greatest threat to the continued strength of metals. With a "soft landing" in the forecast for the U.S. economy, prices will remain above historical averages but generally below the current year highs.

Future Trends

Consolidation continues to be the trend among both producers of new steel and suppliers of scrap metal. Transportation has become a critical issue as the demand for ferrous metal has increased. High fuel costs and an aging rail car fleet have made delivery of product an important consideration in many transactions. Technology continues to advance in the processing of ferrous metals. Overseas producers of steel — including China, India and Turkey — will have a significant impact on markets as scrap metal remains a global commodity.

RMDAC Action

RMDAC will continue to promote and encourage recycling activities that will increase the recovery of scrap metal. Metal recycling is more economically viable than ever with higher prices and there is available capacity to handle all industrial and consumer scrap within the State.

NONFERROUS ALUMINUM

2006 Summary

Aluminum prices reached record highs during 2006, increasing 43% over the 2005 year average, fueled largely by Chinese demand. This positively impacted aluminum industry revenues. In the first nine months of 2006, Alcoa generated more profits than in any full year in the company's history; 82% higher than the same period in 2005.

Prices for recycled aluminum followed primary aluminum prices. Aluminum used beverage containers (UBCs) averaged \$0.46 per pound. The U.S. UBC recycling rate increased in 2005 for the second consecutive year since 1997's peak of 66.5% to 52.0%, a 0.8% increase, but dropped 0.7% in 2006. UBC is the most recycled consumer beverage container in the United States.

U.S. primary production dropped -8.3% from 2005 levels while demand increased 2.6%. Supply tightness in the global aluminum market next year will be determined largely by Chinese demand. They have grown demand 20% per year thus far, which is expected to continue. Aluminum fundamentals are strong with record low inventories.

2007 Outlook

China will strive to build its alumina refining base and grow its aluminum smelting capabilities to meet internal demand, but it will not become a significant exporter of either (alumina or aluminum). Western world consumption will remain healthy at gross domestic product (GDP) rates. Aluminum supply/demand forecast to be balanced to possible deficit position. Alcoa will continue to invest in globally competitive projects to meet increasing demand for alumina and aluminum.

Future Trends

Rising gas prices, a desire for independence from foreign oil and global warming will push auto suppliers to seek fuel-saving materials such as lightweight aluminum parts and brakes that can harness energy and power hybrid motors. Therefore aluminum industry R&D will focus on lightweight automotive applications. This year Alcoa announced development of four new innovative products for the commercial transportation industry that reduce weight, maintenance and operating costs while increasing payloads and fuel economy. China announced a sweeping 15-year plan to boost technological skills, which led some analysts to predict that this will result in them becoming leaders of R&D and innovation in metallurgical engineering in lightweight, fuel-efficient automotive manufacturing.

RMDAC Action

With an established recycling infrastructure in place, the Council should continue to educate and encourage local governments, private citizens, community groups, and industry to recover more aluminum and other nonferrous metals. Additionally, the Council should continue to promote awareness that aluminum can recycling enables charitable organizations and groups to earn funds to further local projects, such as school improvements, Boy or Girl Scout troop funding, and the "Cans for Humanity" national partnership between the Aluminum Association and Habitat for Humanity

International. It's a win-win for the individual, community, business, industry and the environment.

USED OIL

2006 Summary

The statewide used motor oil recycling program targeting do-it-yourselfers (DIYers — those who change their own oil) continues to flourish. Through a combination of technical assistance and grant funding for local governments, South Carolina has developed one of the nation's most comprehensive used motor oil recycling programs for DIYers.

According to figures compiled by the S.C. Department of Health and Environmental Control's Office of Solid Waste Reduction and Recycling (Office), DIYers recycled 1,066,336 gallons of used motor oil in (calendar year) 2005. This marks the seventh consecutive year that more than one million gallons were collected. Overall, more than 12 million gallons have been collected from DIYers since used motor oil recycling efforts began in South Carolina in 1990. Figures for 2006 were not available when this document was prepared.

The recycling of used motor oil filters reflects a significant environmental protection program considering that each filter may contain from four ounces to one quart of oil if not properly drained. In fiscal year (FY) 2005 (July 1, 2004–June 30, 2005), DIYers recycled 226 tons of used motor oil filters. In addition, many counties now collect and market used motor oil filters with their large appliances and/or other metals. With this being the case, not all used motor oil filters that are being recycled are being counted directly. Some may be included in the numbers for large appliances and/or metals.

The recycling of motor oil bottles also offers an important environmental protection program considering that they can contain up to an ounce of oil each if not thoroughly drained. In FY 2005, most counties collected and marketed motor oil bottles with other pigmented HDPE plastic. As a result, numbers are not available to directly measure motor oil bottle recycling efforts.

Introduced in January 2000, the Office continues to offer the "Green Driver Project" that targets students in high school driver education classes. The project stresses the environmental impact of driving and includes information on recycling used motor oil, filters and bottles, energy conservation, ground-level ozone prevention and other environmental tips. The Project serves as a lifelong lesson in environmentally responsible driving. Since the Project began, staff has made 1,508 classroom presentations to 68,511 students. "DHEC 1: Behind the Oil Change," a video chronicling the life of a driving teenager and the consequences of his decision to improperly dispose of his used motor oil, debuted in summer 2002. The video has been extremely well accepted and received an In-Show Award that honors excellence in advertising and public relations. The video also won an Emmy Award from the National Academy of Television Arts and Sciences. In addition, the Office set up a partnership with Palmetto Pride to add a litter component, including litter laws and enforcement, to the Project, which began in 2002.

2007 Outlook

The amount of used motor oil, bottles and filters collected for recycling should continue to grow in 2007. The priorities of the Office regarding its used motor oil recycling program are:

- To continue to collect motor oil bottles. Most counties are using oil drain racks to drain the bottles and make them easier to process. Once drained, the motor oil bottles can be mixed with other HDPE plastics. This makes it easier to market the motor oil bottles. The Office will continue to encourage all counties to use the oil drain racks.
- To continue to expand the farmer oil collection program by adding collection tanks where needed. There are currently 45 farmer oil collection sites in 34 counties (Abbeville, Aiken, Anderson, Barnwell, Beaufort, Cherokee, Chesterfield, Clarendon, Colleton, Darlington, Dillon, Dorchester, Edgefield, Fairfield, Florence, Georgetown, Greenville, Greenwood, Hampton, Horry, Kershaw, Lancaster, Lee, McCormick, Newberry, Oconee, Orangeburg, Pickens, Richland, Saluda, Sumter, Union, Williamsburg and York). Five more counties will be setting up tanks in FY 2007. Each of the tanks holds at least 550 gallons of used motor oil and is fitted with a pump and hose to make it easier for farmers to recycle up to 55 gallons of used motor oil at one time.
- To continue to expand the oil/gasoline mixture collection program by adding collection tanks where needed. There are currently 57 oil/gasoline mixture collection sites in 36 counties (Aiken, Allendale, Anderson, Bamberg, Barnwell, Beaufort, Berkeley, Calhoun, Charleston, Cherokee, Chesterfield, Clarendon, Colleton, Dorchester, Edgefield, Fairfield, Georgetown, Greenville, Greenwood, Hampton, Horry, Kershaw, Lancaster, Lee, Lexington, McCormick, Newberry, Oconee, Orangeburg, Pickens, Richland, Saluda, Spartanburg, Sumter, Williamsburg and York). Five more counties will be setting up tanks in FY 2007. The oil/gasoline mixture tanks typically hold 500 gallons and are designed to accept motor oil, gasoline and oil/gasoline mixtures from lawn equipment and recreational vehicles.
- To secure and maintain markets or other uses for used motor oil, bottles and filters.

Future Trends

The Office will continue to provide grant funding to local governments to set up, maintain and improve used motor oil recycling programs. The Office also will continue its statewide awareness campaign on used motor oil recycling including the national award-winning "Recycle Guys" public service announcements and the "Green Driver Project."

RMDAC Action

The Recycling Market Development Advisory Council should continue its work promoting, supporting and securing markets for the State's used motor oil recycling program.

TIRES

2006 Summary

Waste tire markets in South Carolina and the region remained healthy in 2006. According to our annual Tire Recycling Survey of DHEC-approved tire processors, the major portion of South Carolina waste tires were processed for two primary markets; tire-derived fuel (TDF) and drain field aggregate.

The survey of scrap tire facilities and processors shows that 9.5 million South Carolina waste tires were recycled into a variety of products in 2006. This includes more than seven million post-consumer tires and over two million post-industrial tires.

2007 Outlook

Markets for products derived from scrap tires are expected to remain strong in 2007. The markets for TDF, civil engineering and crumb rubber applications are expected to expand in the coming year. A greater supply of TDF may have to be made available in the marketplace in order to increase TDF usage in cement kilns. Cement kilns, however, are expected to continue to be a major end-use market for waste tires. Markets for tire-derived aggregate should remain stable in 2007. Road construction projects facilitated by the Clemson Asphalt Recovery Technology Service (ARTS) Center, along with the growing sports turf and playground market, should continue to create a steady market for processed crumb rubber.

Future Trends

Market demand for processed waste tires should remain stable in the near future. The TDF market is expected to grow in the coming years due to increased fuel prices and improvements in the quality and delivery of this application. The market for civil engineering applications should remain stable. Crumb rubber applications are being utilized in rubber-modified asphalt, playground and other sport surfaces. As a result, this market is anticipated to grow in the next couple of years.

Nationally, RMA has reported that nearly 87% of waste tires were consumed by end-use markets. This achievement has been made possible by continued support from tire manufacturers, consumer-paid recycling fees which are funding State and local government recovery infrastructure, and recycling business development resulting in the creation of stable and diversified markets. This trend should continue into the future.

RMDAC Action

The Council will continue to support existing waste tire markets and encourage the use of crumb rubber in asphalt rubber paving and other added-value applications for recycling waste tires in South Carolina.

APPENDICES

APPENDIX A

South Carolina Recycling Market Development Advisory Council

APPOINTEES

REPRESENTING

Phil Ammons
Plastics Provider, Inc.

Plastics Industry

Vic Carpenter
Anderson County

County Government

Steve Carreras
Recycle American Alliance

Glass Industry

Norman Chandler
Allied Waste Systems

Solid Waste Collection and Disposal Industry

Kay Clamp
S.C. Petroleum Council

Petroleum Industry

A. Gerald Fishbeck
United Resource Recovery

Recycling Industry
Chair, RMDAC

Chris Fisher
Fisher Recycling

General Public

Haskell Grant
Milliken and Company

South Carolina Department of Commerce

Ronnie Grant
Sonoco Products Company – Paper Division

Paper Industry
Vice-Chair, RMDAC

Cheryl Kirkland
ALCOA Mt. Holly

Aluminum Industry

Roger LeDuc
City of Aiken

Municipalities

Art Levy
Carolinas Recycling Group

Scrap Metal Industry

Donna London
Strom Thurmond Institute
Clemson University

Higher Education Research

Steve Padula
Michelin North America

Tire Industry

STAFF

Chantal Fryer
Senior Manager

South Carolina Department of Commerce
RMDAC

Tonya Lott
Manager

South Carolina Department of Commerce
RMDAC

Kara Corbett
Administrative Assistant

South Carolina Department of Commerce
RMDAC

APPENDIX B

South Carolina Recycling Company Profiles

South Carolina is fortunate to have more than 300 recycling businesses engaged in the recovery, processing, manufacturing and sale of recycled materials. The following profiles show the diversity and complexity of the business operations.

Cleanlites Recycling, Inc.

Cleanlites Recycling, Inc., has been serving South Carolina and the Southeastern United States for 10 years. They collect and recycle universal waste fluorescent lamps, batteries, lighting ballast, mercury-containing devices, toner cartridges, computer and electronic equipment. This company helps address South Carolina's portion of recycling of the more than 400 million fluorescent bulbs that are thrown in the trash each year nationally. In addition, they recently assisted the Department of Commerce and DHEC with fulfilling the requirements of a Mercury Lamp Disposal Education Outreach Campaign grant funded by EPA. By utilizing their Lampmaster boxes, a pilot program is now in place to assist school districts around the State with recycling their T8 and T12 fluorescent bulbs.

To learn more about Cleanlites Recycling, Inc., please visit <http://www.cleanlites.com>.

Diversified Recycling, Rock Hill, S.C.

Diversified Recycling is currently under State contract for used oil/filter collection and disposal, and provides pick-up services for used oil and oil filters around the State. According to the owner of this company, oil filters were a growing problem for many of his clients. They have to be drained to collect residual oil, and the process was considered messy by most accounts. He developed a crusher that not only drains the residual oil but also converts the filters into tight briquettes that can be used by the steel industry. Steel companies with electric arc furnaces are able to recover the steel in the filter, keeping thousands of oil filters out of the State's landfills. This company has experienced significant growth in the past three years — going from a one-person business to a firm that now employs nine people and has a fleet of seven trucks to handle customers' accounts throughout the Southeast. They are a licensed hazardous waste transporter and handle plant decommissioning as well as emergency spill response and clean up.

To learn more about Diversified Recycling, Inc., please visit the Web site at <http://www.diversifiedrecycling.net>.

Global Investment Recovery, Inc., Salley, S.C.

Global Investment Recovery was founded in 1992. The company recycles 100% of all electronics with zero discharge to the landfills. Their services include computer and electronics recycling, monitor disposal and recycling, and certified destruction. They collect a myriad of scrap electronic equipment, including televisions, computer monitors, central processing units (CPUs), printers, fax machines, keyboards, laptops, modems, power supplies, printed circuit boards, and cell phones. Global Investment Recovery is the primary destruction contractor for the U.S. Department of Defense and is on contract with South Carolina State Government. Its secure ISO-14001-certified destruction facility combines manual disassembly with dual shredding and separation systems to ensure complete destruction and proper recycling of electronic equipment. They are an EPA READ (Recycling

Electronics and Asset Disposition) contractor as well as signators to the Basel Action Network (BAN) Stewardship Pledge. A copy of the Department of Commerce's press release for Global Investment Recovery's electronics recycling facility in Salley, South Carolina is provided in Appendix J on page 49.

To learn more about Global Investment Recovery, Inc., please visit the Web site at <http://www.girpm.com/>.

Mumford Industries, Inc., Ninety-Six, S.C.

Mumford Industries was established in 1995. The company helps its customers improve their profits by reducing their waste and controlling cost. Mumford Industries helps its customers identify recyclable material in their waste streams and provides services to remove them. The company has the capacity to process 20,000-plus pounds of material per day. They manage all forms of plastic, cardboard, paper, metal, fiber, solid waste, special waste, and mixed trailer loads. Its 285,000-square-foot facility enables them to sort, grind, bale and source various plastics, cardboard, fiber, paper, and metal. Mumford Industries also offers services for waste evaluations and logistic support.

To learn more about Mumford Industries, Inc., please visit the Web site at www.mumfordindustries.com.

Reflective Recycling of South Carolina, Pacolet, S.C.

Reflective Recycling of South Carolina is a glass processor and manufacturer. The company was established in 2006 and handles post-consumer and industrial waste. Reflective Recycling of South Carolina accepts material such as plate and container glass and fiberglass. They customize systems to usage by utilizing state-of-the-art color sortation, segregation, contaminate removal, crushing, screening, and sizing. Reflective Recycling of South Carolina locates their processing sites with the flexibility to minimize shipping costs. Their manufacturing methods of processing enable customers to receive their glass within the tightest of specifications. Custom blending and special glass chemistries are products they routinely process.

To learn more about Reflective Recycling of South Carolina, please visit the Web site at www.reflectiveindustries.com.

Sunshine Recycling, Orangeburg, S.C.

Sunshine Recycling recycles scrap metal such as steel and resells the recycled metal products. This company constructed a 10,000-square-foot warehouse made entirely of recycled materials, doubled the size of the facility, and will have railroad accessibility. The facility runs on solar power and utilizes five oil-water separators to ensure that the water leaving the plant is clean. This expansion has created approximately 20 new jobs in the past year and provided 12 additional sites for collection since the inception of the business.

To learn more about Sunshine Recycling, please contact Joseph Rich at 803-531-4408.

United Resource Recovery Corporation, Spartanburg, S.C.

United Resource Recovery Corporation is headquartered in Spartanburg, South Carolina. The company was founded in 1992 and provided recycling services for the photographic

film/silver recovery market. In 1994, United Resource Recovery Corporation developed and patented the world-renowned Hybrid UnPET process for chemically super-cleaning polyethylene terephthalate (PET) flake for cost-efficient food grade packaging. In 1996, the company entered into a five-year development program with a multi-national soft drink company to commercialize the process by producing food grade quality PET flake for bottle-to-bottle recycling. As of 2003, more than two billion bottles have been produced from material processed at United Resource Recovery Corporation's pilot plant and subsequently delivered to the consumer. The company's patented UnPET flake can be used up to 100% in direct food contact packaging.

To learn more about United Resource Recovery, please visit the Web site at <http://www.urrcc.net>.

APPENDIX C

THE ECONOMIC IMPACT OF RECYCLING

SUMMARY OF RESULTS

RECYCLING INDUSTRY ECONOMIC IMPACTS

37,440 Jobs

\$1.5 Billion in personal income

\$6.5 Billion in economic impact

\$69 Million in State tax revenue

Projected 12% annual growth in next five years

Estimated total economic impact in five years = more than \$11 billion

MUNICIPAL SOLID WASTE ECONOMIC IMPACTS

1,000 tons recycled MSW =

1.68 Jobs

\$236,000 Economic impact

\$79,000 Personal income

\$3687 State tax revenue

APPENDIX D



Mark Sanford
Governor

SOUTH CAROLINA
DEPARTMENT OF COMMERCE

Joe E. Taylor, Jr.
Secretary

Contact: Rose Dangerfield, SC Department of Commerce, 803.737.0402

FOR IMMEDIATE RELEASE
August 17, 2006

Recycling Companies Generate Significant Economic Impact *SC companies create \$6.5 billion impact*

Columbia, SC – The South Carolina Recycling Market Development Advisory Council, managed within the South Carolina Department of Commerce, today released results from a new economic impact study that shows recycling still plays an important role in the State's economy.

According to the study conducted by Frank Hefner and Calvin Blackwell, economists at the College of Charleston, the recycling industry creates an estimated \$6.5 billion total economic impact in the State's economy. This can be attributed to the more than 300 recycling companies in the state which include haulers, processors, recycled product manufacturers and equipment makers. The study further suggests the recycling industry is growing and new markets for recyclables are emerging. As such, the recycling industry is anticipated to grow at an annual rate of 12 percent each year over the next five years, leading to a potential \$11 billion economic impact.

Hefner and Blackwell found that for every ton of municipal solid waste (MSW) that is recycled instead of landfilled represents a significant cost savings. "In 2004, the cost to landfill one ton of MSW was \$32. Adjusting for inflation, if all of the recyclable material in landfills had been recycled, that would have saved more than \$30 million," said Hefner. Recycling is not only beneficial to the state's economic health, but also to building a sustainable business environment as well.

"This study builds on the Council's past work and achievements. It provides insight as to how recycling markets are directly impacting our state's economy," said Gerry Fishbeck, Chairman of the Recycling Market Development Advisory Council. "Based on the numbers in this study, it clearly shows that it does pay to recycle."

Future goals of the statewide council, which consists of recycling industry representatives as well as public and governmental representatives, include defining recycling as an economic cluster in South Carolina, increasing the capital investment in South Carolina's recycling industry, and helping expand recycling related jobs. The study was commissioned by the council in conjunction with the South Carolina Department of Health and Environmental Control.

The Recycling Market Development Advisory Council's mission is to advocate opportunities to develop sustainable recycling markets, support the growth of South Carolina's recycling industry, and advise the state on efforts required to increase recovery of recyclable materials.

For more information on this study, recycling programs and efforts, please visit www.sccommerce.com/recycling.html or contact Chantal Fryer at 803.737.0477.

APPENDIX E



Mark Sanford
Governor

SOUTH CAROLINA
DEPARTMENT OF COMMERCE

Joe E. Taylor, Jr.
Secretary

Contact: Rose Dangerfield, SC Department of Commerce, 803.737.0402

FOR IMMEDIATE RELEASE:
September 27, 2006

Commerce Announces 3rd Annual Recycling Business Forum *Event to bring businesses in \$6.5 billion industry together*

Columbia, SC - Commerce's Recycling Market Development Program will host its 3rd Annual Recycling Business Forum on October 13, 2006, from 10:00 a.m. to 3:30 p.m. at the SC Archives & History Center in Columbia. The event brings recycling businesses and other industry representatives together and provides a forum for the exchange of current information and resources. In addition, there will be an awards luncheon recognizing recycling businesses and programs making outstanding contributions to the industry.

In addition to serving as an environmentally sound activity, recycling is also a major economic engine for our state. South Carolina has over 300 recycling companies producing an estimated \$6.5 billion total in economic impact in the state. Over the next five years, the recycling industry is anticipated to grow at an annual rate of 12 percent each year, leading to a potential \$11 billion economic impact.

This year's Recycling Business Forum will provide companies a venue to showcase their products, network with other recycling representatives, gather information on funding and other resources, and explore emerging markets. Attending companies can also find out about existing recycling opportunities in the state, and how to tap into available infrastructure and resources.

The Recycling Business Forum is open to anyone interested in recycling. Target audiences include recycling businesses, industries with recycling programs, economic developers, environmental managers, and plant managers.

The cost of the event is \$30 per person. Payment can be made by credit card, or checks payable to SC Department of Commerce. For more information on payment or registration, please contact Tonya Lott at (803) 737-0449. For more event information, to register online, or submit an awards nomination, please visit www.sccommerce.com/recycle.html.

The Recycling Market Development Advisory Council's mission is to advocate opportunities to develop sustainable recycling markets, support the growth of South Carolina's recycling industry, and advise the state on efforts required to increase recovery of recyclable materials.

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1201 Main Street, Suite 1600, Columbia, SC 29201 USA
tel: (803)737-0400 · fax: (803)737-0418 · www.sccommerce.com

APPENDIX F



Mark Sanford
Governor

SOUTH CAROLINA
DEPARTMENT OF COMMERCE

Joe E. Taylor, Jr.
Secretary

Contact: Rose Dangerfield, SC Department of Commerce

FOR IMMEDIATE RELEASE
November 3, 2006

SC Recycling Companies Recognized at Awards Ceremony *Industries Active in Recycling Also Highlighted*

Columbia, SC – The South Carolina Recycling Market Development Advisory Council, managed within the SC Department of Commerce, recently recognized a number of the state's businesses that are actively engaged in the recycling and reuse of a number of materials. The companies were featured at an awards luncheon as part of the third annual Recycling Business Forum held last month in Columbia.

"Recycling plays a prominent role in contributing a \$6.5 billion economic impact in South Carolina. These outstanding businesses are helping our state achieve goals of sustainable environmental and economic progress," said Chantal Fryer, senior manager for the Recycling Market Development program at the Department of Commerce.

The following recycling businesses were recognized for their efforts to help communities and businesses recycle various materials as part of the state's overall efforts to reduce the amount of waste being landfilled. In addition, the Council recognized several existing South Carolina companies that have adopted aggressive recycling programs and placed a significant emphasis on resource management and environmental conservation as part of their business operations.

Best Small Recycling Company – Sunshine Recycling, Orangeburg, SC

Sunshine Recycling recycles scrap metal and resells the recycled metal products. The company constructed a 10,000 square foot warehouse made entirely of recycled materials, doubled the size of the facility, and is in the process of bringing railroad access to its facility. The facility runs on solar power and utilizes five oil-water separators to ensure that the water leaving the plant is clean. This expansion has created approximately 20 new jobs in the past year and reportedly saved Orangeburg County over \$1 million a year by successfully privatizing operations and providing 12 additional sites for collection since the inception of the business.

Best Medium Recycling Company – Global Investment Recovery, Inc., Salley, SC

Global Investment Recovery's annual recycling capacity exceeds 60 million pounds. It recycles 100% of all electronics with zero discharge to the landfills. Its services include computer and electronics recycling, monitor disposal and recycling, and certified destruction. The company collects a myriad of scrap electronic equipment, including televisions, computer monitors, central processing units (CPUs), printers, fax machines, keyboards, laptops, modems, power supplies, printed circuit boards and cell

phones. Global is the primary destruction contractor for the US Department of Defense and is on contract with South Carolina State Government.

Recycler of the Year – Diversified Recycling, Inc., Rock Hill, SC

Diversified Recycling, Inc. continues to grow and expand its recycling services which include scrap tires, ink, batteries, waste oil, fluorescent lamps and computers. Owner Don Burnette developed a crusher that not only drains residual oil but also converts the filters into tight briquettes that can be used by the steel industry. Steel companies with electric arc furnaces are able to recover the steel in the filter, keeping thousands of oil filters out of the state's landfills. Diversified has experienced significant growth in the past three years – going from a one-person business to a firm that now employs nine people and has a fleet of seven trucks to handle customers' accounts throughout the Southeast. They are a licensed hazardous waste transporter and handle plant decommissioning as well as emergency spill response and clean up.

Best Medium Industry Recycling Program - Fujifilm-Pucketts Facility, Greenwood, SC

Fujifilm's Greenwood, SC facility has achieved a 72% recycle rate, significantly reducing solid waste sent to local landfills. Fujifilms has set targets for improved its recycling rate, reduced the concentration of silver in wastewater, improved removal of chemicals from exhaust through technology improvements, and partnered with local groups to help fund a study to preserve the water quality of the Saluda River. The company's disposable QuickSnap cameras are designed to have the capability to be 100% recycled. Some parts in the QuickSnap are designed for reuse, such as the main unit, lens, battery and flash unit and others that cannot be reused are crushed, ground up and recycled into new parts.

Best Large Industry Recycling Program - Michelin-Spartanburg Facility, Spartanburg, SC

Michelin's recycling programs include paper, cardboard, kitchen grease, off-spec production materials, metals, oil, and most universal waste. From January through August 2006, it has generated 2,112 metric tons of waste and recovered 1,499 metric tons. This represents a recovery rate of nearly 71%, and an annualized savings of \$81,000 in landfill avoidance fees.

Michelin-Spartanburg Facility has found reuse/recycling markets for 82 metric tons of off-spec rubber, 572 metric tons of off-spec metallic tissue, 18 metric tons of used oil, 272 metric tons of metal, and 481 metric tons of off-spec tires. Reuse outlets for wood wastes are being developed, which will further reduce the facility's waste sent to the landfill.

BRAP Partner of the Year – Cleanlites Recycling, Inc., Spartanburg, SC

The Partner of the Year award recognizes businesses and industries for their collaborative efforts. Cleanlites Recycling, Inc. collects and recycles universal waste fluorescent lamps, batteries, lighting ballast, mercury-containing devices, toner cartridges computer and electronic equipment. Cleanlites helps address South Carolina's and surrounding state's portion of recycling the over 400 million fluorescent bulbs that are thrown in the trash each year nationally. In addition, Cleanlites recently assisted the SC Department of Commerce and the SC Department of Health and Environmental Control with fulfilling the requirements of a Mercury Lamp Disposal Education Outreach Campaign grant funded by the EPA. By utilizing their Lampmaster boxes, a pilot program is now in place to assist school districts around the state with recycling their T8 and T12 fluorescent bulbs.

BRAP Special Recognition – Roche Carolina, Florence, SC

The BRAP Special Recognition Award recognizes companies that have contributed to recycling and waste reduction efforts as well as community outreach. For each new drug compound developed at

Roche Carolina, waste reduction goals are established. For drug compounds developed in 2005, 35% of chemical waste was eliminated during the new drug development process. During 2005, 805 tons of various solvents were recovered and reused back in the manufacturing process. This is a 47% increase when compared to 2004. Total savings due to the use of recycled solvents in 2005 was \$2.5 million. An additional \$190,000 savings was realized due to increased waste segregation and off-site recycling during the fourth quarter of 2005 alone.

Sustainability Award – Alcoa Mt. Holly, Goose Creek, SC

Being a good steward is a key element in sustainability. As such, this stewardship entails companies being able to lessen their environmental footprint by providing services that promote community growth and prosperity. Established in 1990, Alcoa Mt. Holly's recycling program has been recognized numerous times for its effectiveness in recycling materials, reducing waste going to area landfills and promoting environmental conservation to students and citizens in Berkeley County.

Alcoa has continued to move forward with its sustainable efforts by adding new waste streams to its reduction and recycling efforts, including the addition of managing burned anodes, which has contributed to 3,022 tons of material being diverted from the landfill. The facility has initiated a process for recycling carbon dust, recovering about 200 tons of carbon swiping. In addition, the pollution prevention team is researching options to send its plant municipal waste for fuel blending and creating collection points for other plastic materials. Finally, the Mt. Holly facility uses biodiesel fuel in its farm equipment used to maintain its 6,000 acre site and recently developed a small grant program for biodiesel use.

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APPENDIX G

Recycling Market Development Issues

- Incentivize capital costs for alternative energy projects for business and industry.
- Go beyond cost-benefit analysis to look at the triple bottom line. The military is just focusing now on paper recycling due to a recent cost-benefit analysis.
 - Education of policy makers.
 - EPA and NERC may have toolkits available on this.
- Increase tipping fees in South Carolina.
- Consolidate companies' recycling streams to make them more efficient and provide economies of scale.
- Incentivize generators of waste for utilization of cement kilns.
- Banning/enforcement of bans of cardboard for commercial/industrial businesses and residential sector.
- Communicate to others about recycling businesses, i.e., through networking, manufacturing sector, and providing advice as to municipal requirements for hazardous waste.
- Pallet recycling — size of pallets are an issue for companies. Improve recovery rate for pallets.
- Universal ban on electronics waste.
- Expansion of plastics recovery along the lines of Santee Cooper's oil recovery effort.
- Improvement of recycling hard-to-place waste streams such as glass, Styrofoam, peanuts, sludges.
- Business recycling — need incentives to educate and reward employees and teams who recycle — one example was provided in providing bonuses for employees' recycling efforts.
- Special wastes/hazardous wastes — use Materials Exchange to publicize availability of these materials.

APPENDIX H

South Carolina Recycling Business Forum Evaluation

Please take a moment to complete this evaluation to help us ensure that the information presented was useful and informative. We appreciate your help!

On a scale of **1 (strongly disagree)** to **5 (strongly agree)**, please rate the following statements. If you have specific comments or suggestions, please include them at the end of the survey.

1. The meeting proved to be a productive use of my time.
1 2 3 4 5
2. Overall, I found the information presented to be useful and informative.
1 2 3 4 5
3. I found new contacts and opportunities for future collaboration.
1 2 3 4 5
4. The speakers were informative and knowledgeable on the subjects they addressed.
1 2 3 4 5
5. The meeting time was convenient and an appropriate length for information presented.
1 2 3 4 5
6. Would you be interested in attending a similar meeting in the future, say on an annual basis?
1 2 3 4 5
7. What topics would you have liked to hear more about that were not covered in today's session?
8. Please provide any comments, suggestions or improvement opportunities you may have for the Recycling Market Development Advisory Council and/or Commerce staff.
9. How did you hear about the Recycling Business Forum?

APPENDIX I



Mark Sanford
Governor

SOUTH CAROLINA
DEPARTMENT OF COMMERCE

Joe E. Taylor, Jr.
Secretary

Contact: Rose Dangerfield, SC Department of Commerce 803.737.0402

FOR IMMEDIATE RELEASE
January 5, 2007

South Carolina Leads US in Recycling Tires

Columbia, SC – The South Carolina Recycling Market Development Advisory Council announced that South Carolina has been recognized by the Rubber Manufacturers Association as being the best state in the nation for managing its waste tires.

According to the Council which is managed within the Department of Commerce, 8.2 million tires were recycled in 2005. The state's top ranking is based on the percentage of tires going to end-use markets, the number of stockpiled tires, stockpiled tires per capita, number of tires land-disposed and the percent of tires per capita/land-disposed in 2005.

"This is the first year that the Rubber Manufacturers Association has ranked the states on scrap tire progress," said Steve Padula, Michelin, N.A. manager of End of Life Tires and member of the state's advisory council. "This ranking just confirms what we have known all along; South Carolina is #1 and doing a tremendous job in managing scrap tires!"

"This accomplishment serves as a great example of what can be done when all stakeholders, including government and industry, work together," Padula added.

"This is great news for all the citizens of South Carolina," said Secretary of Commerce Joe Taylor. "Our state's environment and quality of life are vital reasons why people and companies decide to live and locate in South Carolina, and our efforts to reduce the number of tire stockpiles and promote businesses that recycle them are paying dividends."

According to the Council, the primary markets for processed scrap tires in South Carolina are drain field aggregate and tire derived fuel. In addition, the state has collaborated with a number of other partners to address new market opportunities for scrap tires, such as rubberized asphalt.

Through the Asphalt Rubber Technology Service (ARTS) at Clemson University, this research facility actively works to promote, design, and test the use of recycled scrap tires in rubberized asphalt and other civil engineering applications. It is a partnership between the South Carolina's Department of Health and Environmental Control, Clemson University and the City of Clemson. The facility provides grant funding to local governments to discover new uses and improve upon the existing uses of scrap tires. The Council has worked with ARTS on a number of market development projects involving the private sector over the years.

"We are elated about the success of South Carolina's waste tire management," said Gerry Fishbeck, chair of the Recycling Market Development Advisory Council. "South Carolina has this success because of the legislation and laws created by the 1991 SC Solid Waste Policy and Management Act.

Thanks to this type of legislation, we are able to fund these and other kinds of research and development efforts in our state. It is this forward thinking in our policies that helped us attain this accomplishment and we look forward to creating more of those for other recyclables in the future.”

Nationally, the Rubber Manufacturers Association reports that 87 percent of scrap tires were recycled in 2005, compared to only 11 percent being recycled in 1990. In addition, tire stockpiles have shrunk considerably over the same time period – from more than 1 billion in 1990 to about 188 million in 2005.

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1201 Main Street, Suite 1600, Columbia, SC 29201 USA
tel: (803)737-0400 · fax: (803)737-0418 · www.sccommerce.com

APPENDIX J

Mark Sanford
Governor

SOUTH CAROLINA
DEPARTMENT OF COMMERCE

Joe E. Taylor, Jr.
Secretary

Contact: Rose Dangerfield, SC Department of Commerce, 803.737.0402
Jim Glenn, Global Investment Recovery, Inc. 803.258.1620

FOR IMMEDIATE RELEASE
December 5, 2006

Global Investment Recovery, Inc. Opens and Expands Salley, SC Electronics Recycling Facility

Columbia, SC - Global Investment Recovery, Inc. (Global) an international recycler of computers, telecommunications equipment, consumer electronics, and classified military electronics, has completed the acquisition of a 65,000 square foot facility in Salley, SC and began recycling operations in July 2006. Due to the increasing demand for electronics recycling, the Company has also agreed to lease an additional 60,000 square foot facility to expand this new operation. Global has converted the former Salley Manufacturing Plant to a modern electronics recycling facility including a state-of-the-art 400 HP shredding system.

Global began July production with a base of 40 employees hired from the local area and forecasts a work force of approximately 85 employees by the end of 2007. During initial production the company plans to recycle or refurbish and remarket 10,000 personal computers and up to 12,500 monitors each month in addition to other products that will be recycled at this location.

"We are very excited and proud to initiate and immediately expand our South Carolina facilities and capabilities" said Reggie Chesson, Managing Director of Global. "During our first full year of operations in Salley, we expect to prevent over 15 million pounds of electronics from being dumped into our landfills. We will be responsible for the recycling of 750 tons of plastics which will serve to reduce our oil dependency and almost 3,750 tons of steel which requires less energy to recycle than the production of steel from ore. This steel will return in many forms including new consumer electronics. We will also reclaim copper, aluminum and precious metals. The State of South Carolina, Aiken County, the City of Salley and Global can all be proud of the positive environment impact of this facility."

"The continued growth of companies like Global Investment Recovery is another positive example of how our efforts to improve the soil conditions for business are paying dividends," said Governor Mark Sanford. "With 140,000 more people working in our state than there were four years ago, we remain focused on our efforts to support changes like workers comp reform that will continue to create jobs and opportunity for South Carolinians."

-MORE-

"South Carolina continues to be a prime location for companies looking to grow and expand and we congratulate Global Investment Recovery on its expansion news," said Secretary of Commerce Joe Taylor. "Commerce is committed to securing jobs and investment in our rural communities, and our numbers reflect that focus, with an 82% increase in rural job recruitment over 2005."

"This commitment from Global Investment Recovery is affirmation that the workforce they require can be found in eastern Aiken County," said Ronnie Young, Chairman, Aiken County Council.

John Troutman, Chairman, Economic Development Partnership added, "This expansion by Global Investment and their accelerated growth plans are indicative of the pro-business environment of Aiken County and Salley."

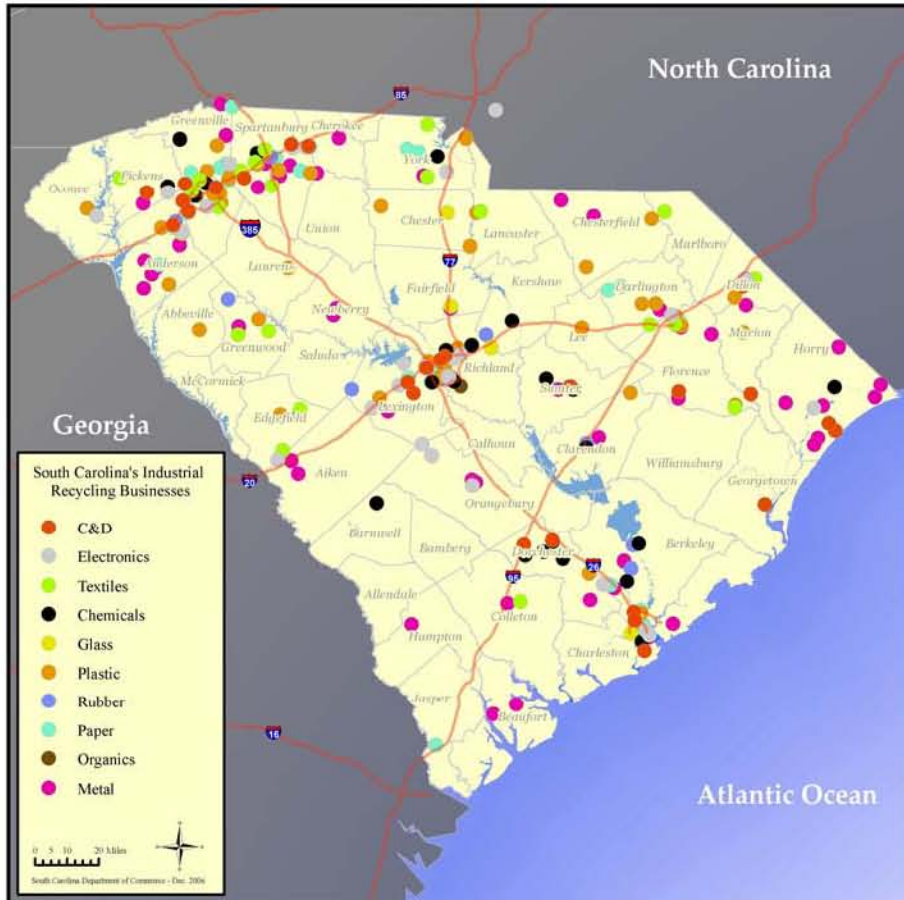
"We are pleased with the Global Investment expansion," said Bob Salley, Mayor, Town of Salley. "Most of these jobs will come from citizens in the Wagener-Perry-Salley area, who will no longer need to commute long distances for a good job."

Incorporated in 1992, Global is one of only seven primary electronic recyclers for the Environmental Protection Agency (EPA). Since 2000 Global has been a Primary Contractor for the Department of Defense for the demanufacturing of electronic scrap. The Department of Defense is the largest generator of electronic scrap in the country. Only two companies currently provide these services to the government. The Company also provides recycling services to the State of South Carolina, all governmental agencies and school boards. Global also provides recycling services for OEMs, leasing companies and other large corporate entities. Global Investment Recovery, Inc. is ISO 14001 certified. The Salley facility will serve the eastern United States. Global has similar facilities in Tampa, Florida and Reno, Nevada.

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APPENDIX K

South Carolina's Industrial Recycling Businesses



APPENDIX L

2006 Waste Tire Survey

Company Name: _____

2006 SOUTH CAROLINA SCRAP TIRE SURVEY

1. PLEASE PROVIDE THE NUMBER OF **PASSENGER OR LIGHT TRUCK TIRES** PROCESSED IN 2006:

Post-consumer Tires (from retail, municipal and individuals) from S.C.? _____
Post-industrial Tires (from manufacturing and industrial scrap tires) from S.C.? _____
2. PLEASE PROVIDE THE NUMBER OF **HEAVY TRUCK TIRES** YOU PROCESSED IN 2006:

How many were Post-consumer Tires from S.C.? _____
How many were Post-industrial Tires from S.C.? _____
3. WHAT **PERCENTAGE** OF TIRES PROCESSED WENT INTO THE FOLLOWING APPLICATIONS?

Drainfields: _____ (Please circle the following application: Septic, Landfill Leachate, Other)
Tire-Derived Fuel: Processed Material _____ Whole Tires _____
Crumb Rubber: _____ Market? _____ Mesh Size: _____
Landscape/Playground Material:
Civil Engineering:
Stamped or Pressed Products:
Other (Please describe):
4. DO YOU TAKE LARGE OFF-ROAD, FARM, MINING, OR LOGGING EQUIPMENT TIRES?
YES _____ NO _____ IF YES, HOW MANY? _____

How do you manage these tires?
5. WHAT PERCENTAGE OF YOUR PRODUCT IS SOLD IN S.C.?
6. DO YOU HAVE MARKETS FOR STEEL AND FABRIC WASTE? IF YES, WHAT ARE THEY?
7. WHAT IS YOUR CURRENT CAPACITY? _____ DO YOU HAVE PLANS TO EXPAND IN THE NEXT YEAR? YES _____ NO _____ APPROXIMATE INVESTMENT AMOUNT \$ _____
8. Comments (use additional paper if necessary):