Annual Report for Fiscal Year 2015 (July 1, 2014 – June 30, 2015)





Building Missouri Business

Introduction

Administration

In 1990, the Missouri General Assembly directed the Environmental Improvement and Energy Resources Authority to establish the Missouri Market Development Program to promote the development and maintenance of markets for recovered materials. EIERA is a quasi-governmental agency with a Governor appointed bi-partisan board that serves as the financing arm of the Department of Natural Resources. EIERA was selected to house the Missouri Market Development Program to bridge economic development and environmental interests.

Purpose

The Missouri Market Development Program promotes the development and maintenance of markets for recovered materials and recycled content products throughout Missouri by providing financial incentives, technical assistance and informational services to businesses, governments and other organizations.

Recycling market development helps to ensure that recycling will expand its role in a sustainable Missouri economy, create jobs, conserve resources, contribute to a quality environment and reduce reliance on Missouri's landfills for disposal of solid waste.

Funding

To implement this statewide effort, the Missouri Market Development Program was allocated \$800,000 from Missouri's Solid Waste Management Fund in fiscal year 2015.





Developing markets through cooperation

Partners

The cooperation and assistance of several agencies and organizations have been instrumental in the success of the Missouri Market Development Program.

Department of Economic Development

During the fiscal year, the Missouri Market Development Program continued its working relationship with the Department of Economic Development in support of program objectives. The Missouri Market Development Program and DED coordinate direct assistance to businesses to improve sales and purchases of Missouri products made from recyclable materials.

Department of Natural Resources

The Missouri Market Development Program works closely with the Department of Natural Resources in its administration of the Solid Waste Management Fund and the Solid Waste Management Program's waste reduction and recycling efforts. The Missouri Market Development Program coordinates priorities and evaluation of activities with the Solid Waste Management Program.

Office of Administration

The Missouri Market Development Program, in cooperation with the Office of Administration, promotes recycling in state agencies. The Missouri Market Development Program works with the Office of Administration on the Missouri Interagency Recycling Council and in developing the annual State of Missouri Recycling and Waste Reduction Report.

Solid Waste Advisory Board

The Missouri Market Development Program provides updates on its activities to the Solid Waste Advisory Board. The Solid Waste Advisory Board is made up of the chairperson of each of the 20 Solid Waste Management Districts, three citizen representatives and two representatives of the solid waste management industry. The Solid Waste Advisory Board solid waste chair also serves on the Missouri Market Development Program Steering Committee.

Missouri Market Development Program Steering Committee

Staff from the EIERA, DED and DNR's Solid Waste Management Program comprise the interdepartmental Market Development Program Steering Committee. The Solid Waste Advisory Board chair is a permanent steering committee member. The steering committee evaluates financial assistance applications and technical assistance proposals submitted to the Missouri Market Development Program and makes funding recommendations to the EIERA board.



Developing markets through cooperation

Partners (continued)

Mid-America Council of Recycling Officials

The Missouri Market Development Program represents Missouri on the 14-state Mid-America Council of Recycling Officials. As a member of the council, the Missouri Market Development Program encourages multistate recycling, market development, reuse and source reduction efforts.

Missouri Recycling Association

Missouri Market Development Program staff are actively involved in the activities of the Missouri Recycling Association, Missouri's only collective voice for recycling, waste reduction and sustainability issues.

Missouri Waste Control Coalition

The Missouri Market Development Program supports the efforts of the Missouri Waste Control Coalition.

Bridging the Gap

Bridging the Gap recently built, tested and launched a web-based version of the Missouri Recycled Product Directory at http://missourirecycledproducts.com/. Vendors can now upload product descriptions and pictures for posting (upon EIERA review and approval), and the new format provides the ability for users to access and search the directory online and via mobile devices.



Business Assistance

FY 2015 Update

Market Development Program Supports Missouri Businesses

The Missouri Market Development Program supports both larger- and smaller-scale projects. This has allowed us to help expand businesses, such as QRS, which created 30 full-time positions at its facility in St. Louis, and DMR Plastics, which created six full-time positions at its facility in Bolckow, located in northwest Missouri.

Fiscal Year 2015 Financial Assistance

The Missouri Market Development Program's financial assistance is targeted toward developing and expanding manufacturing capacity in Missouri by assisting businesses with the purchase of equipment needed to enable manufacturing facilities to use recovered materials. Financial assistance applicants to the Missouri Market Development Program may seek eligibility to request up to \$250,000 toward the purchase of specific equipment needed to manufacturing feedstock.

Applications are assigned points in the categories of job creation, annual diversion and the cash match provided by the applicant. Increasing amounts of assistance are available as points scored by an application increase. If the application addresses a Missouri Market Development Program target, additional points are added to the total. Targets are construction and demolition waste, food waste and organics, plastics or location in a minimally funded Missouri Solid Waste Management District. (A list of these districts is available at http://eiera.mo.gov/files/How-Missouri-Market-Development-Program-applications-are-scored.pdf.)

Any award requires a cash match of at least 25 percent of the cost of the equipment, and a 50 percent cash match is required to receive the maximum award.

Additional Activities

In addition to the financial assistance offered to Missouri business, the Missouri Market Development Program assists businesses with locating and procuring recyclable feedstocks and end markets for their recycled-content products. The program maintains an online Missouri Recycled Products Directory at <u>http://missourirecycledproducts.com/</u>.

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Business Assistance

FY 2015 Projects

Avenue of Life, Inc. - Kansas City

Avenue of Life, Inc., Kansas City, was awarded \$73,000 to purchase equipment costing \$94,550 that would enable the not-for-profit organization to recycle mattresses in collaboration with St. Vincent de Paul of Lane County, Oregon, the leading mattress recycler in the nation. Avenue of Life was established in 2013 to serve as a catalyst in the Kansas City area to break the cycle of poverty through community development.

The organization recovers materials from mattresses and box springs and processes them into feedstocks. There are currently no mattress recyclers in the Kansas City area. Avenue of Life acquired a facility to process the mattresses and box springs and commitments from several businesses and organizations to supply mattresses and purchase recovered materials. The not-for-profit organization anticipates **diverting 1,677 tons** from the waste stream annually and **creating seven new full-time employee positions** with this project.

DMR Plastics, Inc. – Bolckow

DMR Plastics, Inc., Bolckow, was awarded \$100,000 to purchase equipment costing \$170,000 that will enable the company to wash and dry previously unrecovered contaminated plastics so that they can be ground and sold for manufacturing feedstock. The material to be recovered is primarily high density polyethylene and polypropylene packaging materials that are contaminated with dirt, food by-product and labels. These materials are typically landfilled as there are few processors in Missouri that have the capacity to clean them.

DMR Plastics, Inc., is a family-owned business that formed in 1998 to shred and grind plastic scrap and has steadily grown over the years. The company grinds materials for others and also procures and grinds their own material. The addition of a wash line will enable the company to meet a growing customer need as businesses continue to identify means to reduce production costs. DMR Plastics anticipates **diverting an additional 1,500 tons** annually and **adding six new full-time employees** with this project.



Business Assistance

FY 2015 Projects

Foam Products Corporation - Maryland Heights

Foam Products Corporation, Maryland Heights, was awarded \$44,447 to purchase two small foam densifiers costing \$92,000 that will enable the company to expand its foam recycling operation to the construction industry. Foam Products Corporation is a family-owned business started in 1962 that is a leading fabricator and distributor of commercial and industrial foam insulation and packaging products. This project would enable Foam Products Corporation to expand its existing recycling operation by targeting foam generated in the construction industry, serving both as a drop-off site and by offering foam pick-up services in eastern Missouri.

Foam is a problematic waste stream as it has a lot of volume with little weight. As construction markets recover, growth in insulation and carpet underlayment sales is increasing the amount of the material in the waste stream. Foam Products Corporation anticipates **diverting 50 tons** from the waste stream annually and **creating three new full-time employee positions** with this project.

Liquid Soap Products, Ltd. - Grain Valley and Kansas City

Liquid Soap Products, Ltd., Grain Valley and Kansas City, was awarded \$250,000 to purchase equipment costing \$771,000 to purchase a shred/drain/wash/bag line that will enable the company to shred soap bottles and collect both the soap and plastics for recycling.

Liquid Soap Products has been operating for 25 years, collecting waste soap from soap manufacturers and brokers and reformulating it for resale. Soaps collected and processed include dish soaps, shampoos, body washes and conditioners. These soaps are primarily waste products from companies that have "zero tolerance" for error in their product; slight variations in color, aroma or labeling are unacceptable. The companies that produce these soaps do not want the products to go back into the market in the current form and require that they are reformulated before they can be used.

Liquid Soap Products is currently sorting and separating the products manually, recovering both product and packaging. After reformulation, the end product is sold either as a reformulated soap product or in bulk to brokers who then sell to soap manufacturers. While this project will more than double the volume of waste soap Liquid Soap Products can process, the new equipment will also enable the company to shred and clean plastic containers for recycling. Currently, plastic recycling companies in the area will not accept the high-residual soap contaminated plastics.

Liquid Soap Products anticipates **diverting 5,000 tons** from the waste stream annually and **creating five new full-time employee positions** with this project.



Business Assistance

FY 2015 Projects

QRS, Inc. - St. Louis

QRS, Inc., St. Louis, was awarded \$250,000 to purchase equipment costing \$557,000 to recover post-consumer mixed plastics residuals that material recovery facilities are not targeting or are currently unable to recover. Single stream collection systems typically recover 80 percent to 90 percent of materials, sending unrecovered residuals directly to landfills.

QRS, Inc., has developed technology to recover 85 percent of the material left in this residual stream, having conducted two years of study with extensive full production trials in Europe. QRS, Inc. operates in five major markets and has recently secured a St. Louis facility where this \$6.12 million project will be implemented.

The company intends to source material from all areas of Missouri that have household collection programs in place and will pick up the residual materials at a cost neutral to the supplier. The materials will be sized, sorted, washed, ground and dedusted before being packaged for reuse in manufacturing. Marketing of the end product will be performed by St. Josephs Plastics, a successful MMDP participant. QRS, Inc. anticipates **diverting 2,080 tons** from the waste stream annually and **creating up to 30 new full-time positions** with this project.

St. Louis Composting, Inc. - Valley Park

St. Louis Composting, Inc., Valley Park, was awarded \$220,000 to purchase equipment costing \$440,000 that will enable the company to separate expired or recalled food from its packaging and compost the organic fraction and recycle the packaging. The equipment, which uses relatively new technology currently not found in Missouri, will also separate disposable tableware from collected food service waste.

St. Louis Composting was founded in 1992 and is now the largest compost producer in the greater St. Louis metro area, employing more than sixty people and receiving organic material from a number of sources, including the Missouri Botanical Garden, the St. Louis Zoo and the St. Louis Cardinals.

Although the company has been expanding, demand for its compost exceeds its ability to create more product. According to the U.S. Environmental Protection Agency, one-third of all food produced in the United States is wasted. While composting can put that material to good use, much of the waste stream remains unrecovered due to packaging contamination that is difficult to remove and separate. The equipment St. Louis Composting proposes to purchase will allow for recovery of additional food waste streams and recyclable packaging. St. Louis Composting anticipates **diverting an additional 6,500 tons** from the waste stream annually and **creating five new full-time employee positions** with this project.



Business Assistance

Summary of FY 2015 Projects

Company	City	Material	Estimated Tons Diverted Annually	Estimated New Jobs	Award	Investment	Savings
Avenue of Life, Inc.	Kansas City	Mattresses	1,677	7	\$73,000.00	\$261,908	\$93,912
DMR Plastics, Inc.	Bolckow	Plastics	1,500	6	\$100,000.00	\$312,500	\$120,000
Foam Products Corporation	Maryland Heights	Foam	50	3	\$44,447.00	\$92,000	\$18,250
Liquid Soap Products, Ltd.	Grain Valley and Kansas City	Soap and plastics	5,000	5	\$250,000.00	\$771,000	\$892,000
QRS, Inc.	St. Louis	Plastics	2,080	30	\$250,000.00	\$6,120,000	\$1,026,000
St. Louis Composting, Inc.	Valley Park	Organics	6,500	5	\$220,000.00	\$611,295	\$140,875
TOTALS			16,807	56	\$937,447.00	\$8,168,703	\$2,291,037

Recycling market development is working!

The Missouri Market Development Program's fiscal year 2015 new investment in these six Missouri recycling businesses helped our economy and environment:

- Leverage almost \$8.2 million in total investment
- Create 56 Missouri jobs
- Divert almost 17,000 tons annually from Missouri landfills
- The avoided disposal costs for the materials used in these projects combines to almost \$2.3 million each year.



Business Assistance

Summary of FY 2015 Active Projects (previously awarded - still open)

In addition to the six new projects awarded in fiscal year 2015, six previously awarded projects were actively managed by the program during the fiscal year.

Company	City	Material	Estimated Tons Diverted Annually	Estimated New Jobs	Award	Investment	Savings
Bluebird Composting, LLC	Fulton	Organics	2,400	5	\$75,000.00	\$200,000	\$114,648
Ciona Technologies, Inc.	Springfield	Electronics and plastics	53	16	\$250,000.00	\$898,000	\$2,531
EXT, Inc.	Excelsior Springs	Plastics	609	11	\$75,000.00	\$142,288	\$29,092
Lake Area Industries	Camdenton	Foam	180	6	\$63,000.00	\$84,000	\$22,500
Loganbill Enterprises	Latham	Wood and sawdust	750	2	\$50,000.00	\$106,500	\$35,828
Nature's Methane FarmWorks	St. Louis	Organics	26,000	3	\$250,000.00	\$8,900,000	\$1,242,020
TOTALS			29,992	43	\$763,000.00	\$10,330,788	\$1,446,619

Recycling market development is working!

These six previously awarded, active projects benefited the Missouri economy and environment by achieving the following:

- Leveraging more than \$10.3 million in total investment
- Creating 43 Missouri jobs
- Diverting almost 30,000 tons annually from Missouri landfills
- The avoided disposal costs for the materials used in these projects combines to more than \$1.4 million each year.



Informational Services

Working Toward Solutions

During the fiscal year, staff advised businesses on market conditions, locating recovered material feedstocks, determining markets, developing products and creating business presentations. Staff also responded to requests for information on marketing, planning assistance and markets for recyclables from governments and not-for-profit organizations.

The Missouri Market Development Program assisted businesses, governments, organizations and individuals in locating specific recycled content products. For many years, the Missouri Market Development Program has produced a document based Missouri Recycled Products Directory in which recycled-content products made or distributed in Missouri are promoted. This directory has been produced as an annual printed piece, on CD and available on the EIERA web site. Because products enter and leave the market randomly, it has not been easy to keep the document current and the document-based format is inconvenient for people interested in using it.

Recently, EIERA's long-time partner in several projects to promote the use of recovered materials, Bridging the Gap, built, tested and launched a web-based version of the directory at <u>http://missourirecycledproducts.com/</u>. Vendors can now upload product descriptions and pictures for posting (upon EIERA review and approval), and the new format provides the ability for users to access and search the directory online and via mobile devices.

Information sharing is an important aspect of the Missouri Market Development Program's efforts to help build Missouri's recycling infrastructure. The program provides resources and informational services to businesses, governments and other organizations to increase manufacturing, marketing or purchasing of recycled content products.

Missouri Market Development Program staff also promoted Missouri's recycling industry and the "buy recycled" message in speaking engagements and workshops and participated in state, regional and national recycling issue conferences and meetings.

Staff develops and maintains information for a Missouri Market Development Program Web site (<u>www.eiera.mo.gov/mo-market-dev-program</u>) and continues to gather and refine information for future web publication. The Web site enables businesses to download the Missouri Market Development Program Application for Financial Assistance and access other program publications and information.

During the fiscal year, Missouri Market Development Program staff supported and participated in state, region and nation-wide organizations and activities to gain and share knowledge and to develop professional relationships in the areas of recycling, economic development, solid waste and related environmental or business areas. Active involvement in these initiatives enables Missouri Market Development staff to approach problem solving from many perspectives and better facilitate growth of Missouri's recycling businesses.



Outlook

Focusing on Opportunity

Economy

The economic benefits of recycling versus landfill disposal seem negligible at the front end, but as materials flow further downstream, the value of the commodity increases, as do the wages and skilled labor required to turn the commodity into an end product. Recycling is estimated to create nearly five times as many jobs as landfilling. The recycling industry is an elaborate and diverse network of public sector institutions and private industry. Recycling involves not only collection, but also processing and manufacturing. At each level, jobs are created, and income is generated. Recoverable material destined for a landfill is a leakage from the local economy.

Environment

The greatest environmental benefits of recycling are related not to landfills but to the conservation of energy and natural resources and to the prevention of air and water pollution when a recycled material, rather than a raw material, is used to make a new product. Using recovered materials in preference to virgin also helps stimulate Missouri's development of green technologies. The benefits of developing markets for recovered materials are found at every stage of the life cycle of a consumer product - from the mining of raw materials through its use and final disposal.

Challenges

Missouri has made great strides in recycling since 1990, but much of our recovered material continues to flow out of state, often to other countries where it is used in manufacturing products that are resold to the United States. According to the Department of Natural Resources, 1.9 million tons of recyclables are disposed of in Missouri landfills each year. End markets, particularly local end markets, for many materials simply do not exist.

Opportunities

The Missouri Department of Economic Development reports that Missouri exports of scrap exceed \$5 million annually. Recirculation of even a fraction of this within the state would have significant economic benefits for Missouri. Manufacturers that use recovered materials do so in lieu of feedstocks that are mined, harvested or extracted outside of the region. As a result, these businesses create jobs closer to home and have a smaller environmental footprint than companies that rely on raw material extraction. The Missouri Market Development Program acts to counter-balance foreign demand by developing local markets that will in turn create jobs and broaden the domestic tax base. Recycling market development feeds directly into building Missouri jobs, supports larger, private sector investments, promotes resource efficiency and spurs new technologies.





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