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# Missouri Market Development Program

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Annual Report for Fiscal Year 2022

(July 1, 2021 – June 30, 2022)



**EIERA**  
Environmental Improvement and Energy Resources Authority

Missouri Market  
Development Program



# Missouri Market Development Program

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 2022.

#### Recycling market development is working!

In Fiscal Year 2022, the Missouri Market Development Program's new investment in 6 Missouri recycling businesses and continued management of 13 active projects provided the following benefits to our economy and the environment:

- Leveraged more than \$12 million in total investment
- Created 109 new Missouri jobs
- Diverted more than 101,320 tons annually from Missouri landfills
- The avoided disposal costs for the materials used in these projects combines to more than \$2.8 million each year.



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# Missouri Market Development Program

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 Waste Management Program's waste reduction and recycling efforts. The Missouri Market Development Program coordinates priorities and evaluation of activities with the 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 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 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.



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# Missouri Market Development Program

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 multi-state 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 by participating and supporting their annual conference in addition to staff serving on their advisory board.



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# Missouri Market Development Program

## Business Assistance

### **FY 2022 Update**

#### **Market Development Program Supports Missouri Businesses**

The Missouri Market Development Program supports both larger and smaller-scale projects. Thanks to the program, Bluebird Composting in Fulton can expand its food waste collection and compost production activities and Ripple Glass in Kansas City will increase glass processing efficiency and effectiveness. The program also helped four other Missouri companies create new jobs in other areas of the state.

#### **Fiscal Year 2022 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 manufacture a product from recovered materials or to process materials so that they can be used as 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 waste stream, additional points are added to the total. These targeted waste streams include: construction and demolition waste, food waste and organics, or plastics. Location in a minimally funded Missouri Solid Waste Management District will also earn additional points. (A list of these districts is available at [MMDP Solid Waste Management Districts.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.



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# Missouri Market Development Program

## Business Assistance

### FY 2022 Projects

#### Ripple Glass LLC – Kansas City

Ripple Glass LLC, located in Kansas City, was awarded \$250,000 to purchase equipment costing \$846,498 that would enable the company to upgrade obsolescent sortation equipment in its glass recycling plant.

Ripple Glass processes feedstock for the fiberglass and container glass manufacturing industries. The equipment upgrade would target Ripple's system that optically identifies ceramic, stone, porcelain or other non-glass materials. Existing equipment is unable to "see" true glass pieces that may be partially obscured on the processing line. The upgrade would allow Ripple to retain additional glass for finished recycled-content feedstock and avoid landfilling of desirable glass that could not be properly identified.

Ripple Glass was founded in 2009 and employs twenty full time staff between sourcing and production teams. Ripple's production plant currently processes about 42,000 tons of recycled glass each year. It is considered a mid-sized glass processing operation and primarily serves the fiberglass industry and secondarily produces amber bottle cullet. Ripple obtains its glass from 107 drop-off containers within the Kansas City metro area and 94 communities and recyclers throughout the Midwest.

Ripple Glass anticipates **diverting 1,500 tons annually** from the waste stream and **creating no full time employee positions** with this project.

#### Wilson Industries - Gainesville

Wilson Industries, located in Gainesville, was awarded \$250,000 to purchase equipment costing \$1,050,000 that would enable the company to install two new extrusion lines to produce a product requested by two major companies.

Wilson Industries has conducted testing for the manufacture of a specialized plastic core requested by Kimberly Clark and Wilson appears to be the only company with the capacity to make this product. Wilson can meet this need, as well as additional production with the installation of the new extrusion lines.

The Wilsons are the third owners of the company formerly known as Bryant Plastics, which has produced PVC pipe and fittings since 1976. With encouragement from the Missouri Market Development Program in the early 1990's, the company began using recovered PVC in its production. The most recent project with the program added pulverizing capacity to the plant and the company now sells recovered PVC in powdered form to other manufacturers. In recent months, plastic prices have been volatile due to lower availability of virgin materials creating even more demand for Wilson's product.

Materials recovered include anything made from PVC: pipe, siding, fencing, credit cards, etc. Wilson Industries receives materials in various forms and shreds, grinds and pulverizes them for their own production lines.

Wilson Industries anticipates **diverting 1,820 tons annually** from the waste stream and **creating 11 full time employee positions** with this project.



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# Missouri Market Development Program

## Business Assistance

### FY 2022 Projects

#### Capital Materials LLC – Jefferson City

Capital Materials LLC, located in Jefferson City, was awarded \$100,000 to purchase a rubber metering device costing \$174,200 that would enable the company to incorporate waste tire rubber into asphalt hot mix.

Using ground tire rubber in asphalt hot mix has documented test results that show better ride performance, longer surface wear, reduced spray, and the ability to reduce lift thickness in some applications. In the summer of 2021, Capital Materials was part of a research project in which asphalt mixes were produced with both plastics and rubber for use in the Columbia area using similar equipment. Its Columbia plant has already been retrofitted to accept the equipment and minimal modifications would be needed to ready several other plants in Missouri to incorporate the waste rubber.

The Missouri Department of Transportation (MoDOT) was involved in the Columbia project and is currently working on rubberized asphalt specifications that will facilitate the adoption of the process statewide. The Central and St. Louis districts are already familiar with the process and have successfully used it in past projects.

Missouri generates about 6 million passenger tires each year and there are limited end markets for them since coal facilities no longer use Tire Derived Fuel due to tightened air regulations. The new interest in rubberized asphalt by MoDOT and by contractors could provide a beneficial alternative to disposal of tires in the state.

Capital Materials is a third-generation family-owned business that provides asphalt repair, sealing, paving and maintenance. Their projects range from heavy highway to state and local municipalities as well as residential and commercial.

Capital Materials anticipates **diverting 500 tons annually** from the waste stream and **creating 1 full time employee position** with this project.



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# Missouri Market Development Program

## Business Assistance

### FY 2022 Projects

#### Summit Transfer LLC – Lee's Summit

Summit Transfer LLC, located in Lee's Summit, was awarded \$240,000 to purchase equipment costing \$425,000 that would be part of a \$5 million construction and demolition waste recycling facility.

The facility, which will be built on leased ground in cooperation with the City of Lee's Summit, will focus primarily on recovering wood, concrete, metals, paper and cardboard, and fines. Markets for additional materials, such as asphalt shingles and gypsum, may be developed over time as these are materials that are commonly recovered elsewhere. The facility is anticipated to be the first ever MDNR permitted construction and demolition waste facility in Missouri and has the support of the Mid America Regional Council.

The owner/developer of the facility has over 16 years of experience in the waste industry and also owns a demolition company and KC Dumpster, a leader in the Kansas City area for roll-off services. Both of these companies have received awards and recognition for leadership in the community and in the industry.

The facility will allow only certain materials to be accepted and processed, which is facilitated by the relative consistency and ease of separating construction and demolition materials. While KC Dumpster will send 100 -150 tons per day to the facility, it will be open to the public, including residents, small contractors, home builders, construction clean-up businesses, and other roll-off companies. A shredder, the specialized equipment to be purchased with this award, will break larger items into smaller, more manageable pieces.

Summit Transfer anticipates **diverting 46,800 tons** annually from the waste stream and **creating 22 full time employee positions** with this project.

#### Holliday Construction LLC - Boonville

Holliday Construction Company LLC was awarded \$230,500 to purchase a large gasifier costing \$511,100 that would allow the company to gasify/carbonize contaminated organic waste and fines at the Missouri Organic Recycling, Inc. facility in Kansas City to create biochar. The biochar would then be added to compost created at Missouri Organics in Kansas City and sold in bags and in bulk. Biochar is used as an amendment or supplement to increase the benefits of compost (i.e. adds additional nutrients and helps with water retention). Holliday Construction also intends to pursue other end markets such as using the biochar in filtration systems for waste water treatment plants.

Holliday Construction reached an agreement with Missouri Organic Recycling to place the gasification unit at their location. Processing on site will eliminate costly transportation related expenses associated with acquiring feedstock and transporting finished product. Missouri Organic Recycling provided a letter of intent that was included as part of their application.

Holliday Construction was incorporated in 1992 when they started building and remodeling houses in the Columbia/Boonville area. The company grew and started building entire subdivisions and became committed to sustainable building and construction. Holliday Construction also partnered with a local company in





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# Missouri Market Development Program

## Business Assistance

### FY 2022 Projects

geothermal heating and cooling in 2010 to place the largest geotherm system of this kind in the United States.

Holliday Construction anticipates **diverting 4,380 tons of waste annually** and **creating 2 full time employees and 2 part-time employees** with this project.

### Bluebird Composting LLC – Fulton

Bluebird Composting, LLC, located in Fulton, was awarded \$100,000 to purchase a larger compost (trammel) screener costing \$195,000 that will enable the company to increase diversion of food waste, yard waste and other organic materials. A larger screener would allow them to improve production, quality, and efficiency to help keep up with demand. The larger, more versatile screener would also enable them to explore additional product lines, custom blends, etc.

The current screener being used has a small capacity hopper and they are struggling to keep up with the demand. A new, larger compost screener would be able to handle larger volumes of materials, which would increase production speed and output. The newer/larger screeners provide an option to interchange screen sizes for finer quality compost, custom blends and new products. Bluebird has opened a retail location in Columbia that has struggled to keep up with the current demand. They have also been successful in marketing their products nationwide via the Amazon Store.

Currently Bluebird, a successful past program participant, composts 7,539 tons of food waste, 3,597 tons of yard waste and 3,208 tons of other waste (such as sawdust, horse bedding, etc.). The company started business in 2012 with one employee, a skid steer and a truck. The business has grown steadily and now operates a fleet of trucks, trailers and heavy equipment with six full-time and several part-time employees.

Bluebird Composting anticipates **diverting 3,155 tons** from the waste stream annually and **creating 4 full time positions** with this project.



# Missouri Market Development Program

## Business Assistance

### Summary of FY 22 Projects

Company	City	Material	Est. Tons Diverted Annually	Est. New Jobs	Award	Investment	Annual Savings
Capital Materials LLC	Jefferson City	Tires	500	1	\$100,000	\$325,000	\$30,000
Wilson Industries LLC	Gainesville	PVC	1,820	11	\$250,000	\$1,050,000	\$182,000
Ripple Glass LLC	Kansas City	Glass	1,500	0	\$250,000	\$1,458,569	\$22,500
Summit Transfer LLC	Lee's Summit	C&D	46,800	22	\$240,000	\$5,000,000	\$1,170,000
Bluebird Composting	Fulton	Organics	3155	4	\$100,000	\$195,000	\$220,850
Holliday Construction	Boonville	Organics	4,380	4	\$230,500	\$461,160	\$240,720
<b>TOTALS</b>			<b>58,155</b>	<b>42</b>	<b>\$1,170,500</b>	<b>\$8,489,729</b>	<b>\$1,866,070</b>

#### Recycling market development is working!

The Missouri Market Development Program's fiscal year 2022 new investment in these six Missouri recycling businesses helped our economy and environment by:

- Leveraging nearly \$8.5 million in total investment
- Creating 42 Missouri jobs
- Diverting more than 58,000 tons annually from Missouri landfills
- The avoided disposal costs for the materials used in these projects combines to more than \$1.8 million



# Missouri Market Development Program

## Business Assistance

### Summary of FY 2022 Active Projects (previously awarded – still open)

In addition to the six new projects awarded in fiscal year 2022, thirteen previously awarded projects were actively managed by the program during the fiscal year.

Company	City	Material	Est.Tons Diverted Annually	Est.New Jobs	Award	Investment	Annual Savings
Arcana LLC Switchgrass	St. Louis	Organics	280	2	\$13,884	\$20,511	\$45,500
Catalytic Innovations LLC	Rolla	Batteries	3,630	27	\$250,000	\$2,600,00	\$200,000
Service Recycling LLC	Joplin	Wood	585	0	\$24,375	\$36,990	\$87,750
St. Louis Composting	St. Louis	Organics	27,000	6	\$250,000	\$500,000	\$140,875
Refab	St. Louis	Wood	100	8	\$169,500	\$503,220	\$2,880
Evertrak LLC	St. Louis	Plastics	10,560	12	\$218,000	\$3,200	\$369,600
St. James Winery, Inc.	St. James	Organics	1000	12	\$175,500	\$2,500,000	\$49,000
For Your Convenience	St. James	Plastics	10	0	\$18,000	\$28,278	\$2,000
Full Circle Forest Products LLC	Rutledge	Wood	355	6	\$95,217	\$393,634	\$28,400
Kansas City Composting	Belton	Organics	15,000	3	\$195,570	\$391,141	\$450,000
Urban Lumber Co.	Kansas City	Wood	100	1	\$19,988	\$26,650	\$5,757
J. Carter Enterprises	New Bloomfield	Wood	7,300	1	\$224,000	\$448,270	\$876,000
Northwest MO State Univ.	Maryville	Paper	44	0	\$40,095	\$53,461	\$2,112
<b>TOTALS</b>			<b>43,165</b>	<b>67</b>	<b>\$1,119,259</b>	<b>\$3,571,688</b>	<b>\$897,605</b>

#### Recycling market development is working!

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

- Leveraging over \$3.5 million in total investment
- Creating 67 Missouri jobs
- Diverting more than 43,000 tons annually from Missouri landfills
- The avoided disposal costs for the materials used in these projects combines to almost \$1 million each year.





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# Missouri Market Development Program

## Informational Services

### Working Toward Solutions

During the fiscal year, staff advised businesses on market conditions, locating recovered material feedstocks, identifying 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.

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 develop and maintain information for a Missouri Market Development Program web site ([www.eiera.mo.gov/mo-market-dev-program](http://www.eiera.mo.gov/mo-market-dev-program)) and continue 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, regional 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.



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# Missouri Market Development Program

## 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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