



brewer science



2021 CORPORATE SUSTAINABILITY REPORT

CONTENTS

Introduction

Company Overview	1
Letter from our President	2
Notable Highlights	3
Awards and Recognition	4

HSSE

HSSE Performance	5
IMS Policy	6
Operational Objectives	6
Environmental Journey	7
Waste Diversion from Landfill	8
Tons Recycled	9
Hazardous Waste Disposal	10
Resource Conservation	11
CO ₂ Equivalent	12
Safety	13
Community Waste Collections	14
Environmental Stewardship	15

Our People

Introduction	16
Wellness	17
Compensation & Benefits	18
Community Impact	19

Welcome to our 2021 Corporate Sustainability Report.

In previous years, we have called this report the health, safety, security, and environment (HSSE) report. This year, we have decided to continue to build off this report and to further expand on it to remain transparent with our customer, partners, and employees. Inside this report, you will find the same sustainability information you always have, as well as more information about why we are a company of the people, by the technology, for the customer.

COMPANY OVERVIEW



Our Company

Brewer Science is a global leader in developing and manufacturing next-generation materials and processes that foster the technology needed for tomorrow. Since 1981, we've expanded our technology portfolio within advanced lithography, advanced packaging, and printed electronics to enable cutting-edge microdevices and unique monitoring systems. Our relationship-focused approach provides outcomes that facilitate and deliver critical information.

Our Culture

The employees of Brewer Science are committed to an environment that fosters innovation, diversity, and professional development. Our customers' long-term success is important to us, and we pride ourselves in exceeding their expectations with our personalized care and commitment.

Our Brand

Our brand personality is directly linked to our core values. The intangible elements that our hawk logo symbolizes—freedom, beauty, and harmony—make the hawk a visual representation of Brewer Science. When our customers think of Brewer Science, they think of our trustworthiness and commitment to our business. They know that we are working for them tirelessly and leading the way into the next generation. We are valued for our diversity and our belief that we are more than the sum of our parts. As a team, we are all committed to being leaders in our industry and for returning more to the world than we take.

A company of the people, by the technology, for the customer, to achieve fulfillment

Our Locations

Brewer Science is currently headquartered in Rolla, Missouri, but we offer support all throughout the world.

United States

- Rolla, MO
- Vichy, MO
- Springfield, MO

England

France

Germany

Japan

Republic of Korea

People's Republic of China

Hong Kong

Belgium

Taiwan



LETTER FROM OUR PRESIDENT

For 40 years, our corporate vision, “Of the People, By the Technology, For the Customer, To Achieve Fulfillment” has directed our business practices at Brewer Science. Our integrated quality, environmental, and safety management system has fulfilled this vision by providing programs to provide a world-class safe, healthy workplace environment for our employees, sustain and improve the environment in which our company operates, and provide high-quality, industry-leading materials that enable our customers to succeed. Our mission is to continuously improve our global footprint to the benefit of our employees, community, and customers, adding unexpected value throughout the world.

Brewer Science has been externally reporting environmental, safety, and health performance on a yearly basis since 2006. We provide this report to our interested parties to better communicate the continued importance we place on safety, employee wellness, environmental and social responsibility and the value they bring to our employees, and our community.

This year we celebrate 40 Years of Innovation. Daring to innovate, our employees have a unique trait. It is how we are able to accomplish such revolutionary achievements in the dynamic industry of microelectronics—each and every individual in the company instills an important trait that is necessary to our success—the daringness to innovate. While celebrating the 40 years of innovation, we also celebrate the exciting step in further engaging with our employees by the creation of ESOP in our company. This creates more value for our employees, customers, and our community.

Brewer Science has managed to sustain a very successful year while working in an environment that produced uncertainty, stress, and trauma in our communities due to the COVID-19 pandemic. Our number one priority was keeping our employees safe and protected. We took strong measures to assure the safety

and health of not only our employees but our community, customers, and suppliers as well. We are incredibly proud of our employees’ dedication, strength, sacrifice, and compassion to put others before themselves. This, along with the global community support, has been very humbling and inspiring. We know we will emerge much stronger and much more resilient for the future. Brewer Science is also very proud of the commitment dedicated to our customers. We were able to maintain fulfillment of 100% of our orders to our customers with 98.1% on-time delivery during this pandemic. The small number of delayed shipments were due to shipping carrier issues and not related to Brewer Science’s performance.

We continually seek ways to improve and always welcome your feedback. It is our sincere desire that these efforts will have a positive impact on the overall health, safety, security, and environment of the global communities that we influence. Additional information can also be obtained from our website on our [Quality, Environmental, and Safety](#) page or our [Going Green](#) page.

Dr. Terry Brewer

President and Founder, Brewer Science, Inc.

HIGHLIGHTS

Brewer Science is proud of the results our efforts have had on our internal and external communities. Key outcomes for 2020 of our improvement programs include:



Received the GreenCircle, LLC "Zero Waste to Landfill" Certification for 6 years straight



Utilization of geothermal technology for use at the Vichy, MO manufacturing facility



Yearly Incident Command and Emergency Response training and exercises for employees



Over 75% of our generated hazardous waste has been designated for re-use applications



Partnered community collection of tires, household appliances and electronics, diverting over 61,000 lbs. of residential material from landfills



Continued effective use of 5S, Gemba walk, and Scrum continuous improvement programs throughout our facilities



Utilization of the Community Service Leave Policy, enabling employees to serve the community during work hours



Continue to be below the average OSHA® recordable injury rate for our industry



Wellness program, including fitness programs, wellness seminars, an on-site exercise room, and the promotion of healthy foods available in the workplace



46 tons of cardboard, paper, batteries, plastics, and bulbs recycled, diverting these items from landfills

These achievements are testaments that the global safety, wellness and environmental policies we enact continue to educate and improve the well-being of our employees and make Brewer Science an environmentally friendly leader and socially responsible member of the community.

AWARDS & RECOGNITION

Local

2012 - Ozark Rivers Solid Waste Management District: Dedication to the environment in the Ozarks Rivers Region

2012 - Award of Congratulations from SAFE Rolla for recognizing the importance of protecting the health of workers and our community

2014 - Safety Council of the Ozarks, Les Reynolds Million Hour Award

State

2014 - Safety Excellence Award from the Missouri Association of Manufacturers

2012-2013, 2015-2020 - "Top Workplace" by the St. Louis Post-Dispatch

2016 - "Sustainability Leadership Award" from the Missouri Association of Manufacturers

2018 - Outstanding Exporter for the State of Missouri

2018 - Breastfeeding Friendly Workplace Award from the State of Missouri

National

2011-2016 - American Heart Association: Gold Fit Friendly Award

2014, 2015, 2016 - Minority Engineer magazine's list of Top 50 Employers in the United States

2016-2021 - GreenCircle, LLC "Zero Waste to Landfill" Certification

2017 - FLEXI Award for Technology Leadership in Education Award

2018, 2020 - Brewer Science recognized as Outstanding Exporter for the State of Missouri by NASBITE International

2018 - Front End Perfect Quality Platinum Award from ON Semiconductor

2019 - ON Semiconductor Quality Award

2020 - Preferred Quality Supplier Award by Intel

HSSE PERFORMANCE INFORMATION



Brewer Science recognizes its responsibility to conserve natural resources while providing safe, secure, and environmentally responsible solutions for customers throughout the world. For this reason, Integrated Management Systems based on the requirements of the ISO® 14001 and ISO® 450001 standards are maintained.

A global Integrated Management Systems Team implements and maintains systems that support the company's safety and environmental policy and goals. The Integrated Management Systems Team educates employees and the local community about improved waste management and environmental practices.

All environmental, health, and safety aspects of Brewer Science processes and products are identified. Objectives and targets that minimize the company's negative impact on these systems are then developed. Management approves the objectives, while the Integrated Management Systems Team manages the systems to ensure all goals are reached effectively and on time.

INTEGRATED MANAGEMENT SYSTEM (IMS) POLICY

Brewer Science has established, and is committed to being a leader in quality, environmental, and health & safety management systems with a focus on exceeding customer expectations; being conscientious stewards of the environment by advancing sustainability programs and preventing pollution; and providing a healthy, safe, and secure workplace.

These systems will enable Brewer Science to eliminate hazards, reduce risks, and drive continuous improvement with the input of, and for the benefit of, our customers, employees, and other interested parties throughout all areas of our company through planning, risk assessments, monitoring, corrective actions, objectives and targets, and management review.

Each employee is charged with the responsibility to deliver exceptional customer service wherever we operate while complying with all relevant international, federal, state, and local regulations, and other requirements, for the fulfillment of all interested parties.

OPERATIONAL OBJECTIVES

The following specific objectives have been chosen to minimize environmental, health, security, and safety impacts:



Receive the GreenCircle Certified, LLC, "Zero Waste to Landfill" certification



Maintain OSHA® Recordable Injury Rate below industry average



Divert 70% of Hazardous Waste to re-use applications

ENVIRONMENTAL SUSTAINABILITY JOURNEY



Over 20 years ago, we began our first fuel-blending program. In 2002, the mini-bin recycling program began, further encouraging more sustainable practices not only in manufacturing, but in the office. In 2015, Brewer Science added "Big Blue," a large trash compactor that is used to collect items normally headed to the landfill. Waste in "Big Blue" is taken to a waste-to-energy facility where the waste is combusted to produce steam and electricity. The implementation of the trash compactor in combination with Brewer Science's recycling initiatives enabled the Rolla and Vichy facilities to achieve Zero Waste to Landfill status. To this day, Brewer Science continues to create new programs inside and outside the company to help promote sustainability.

Being Zero Waste to Landfill certified for six consecutive years represents our commitment to the responsible management of end-of-life materials and demonstrates our commitment to waste diversion practices.

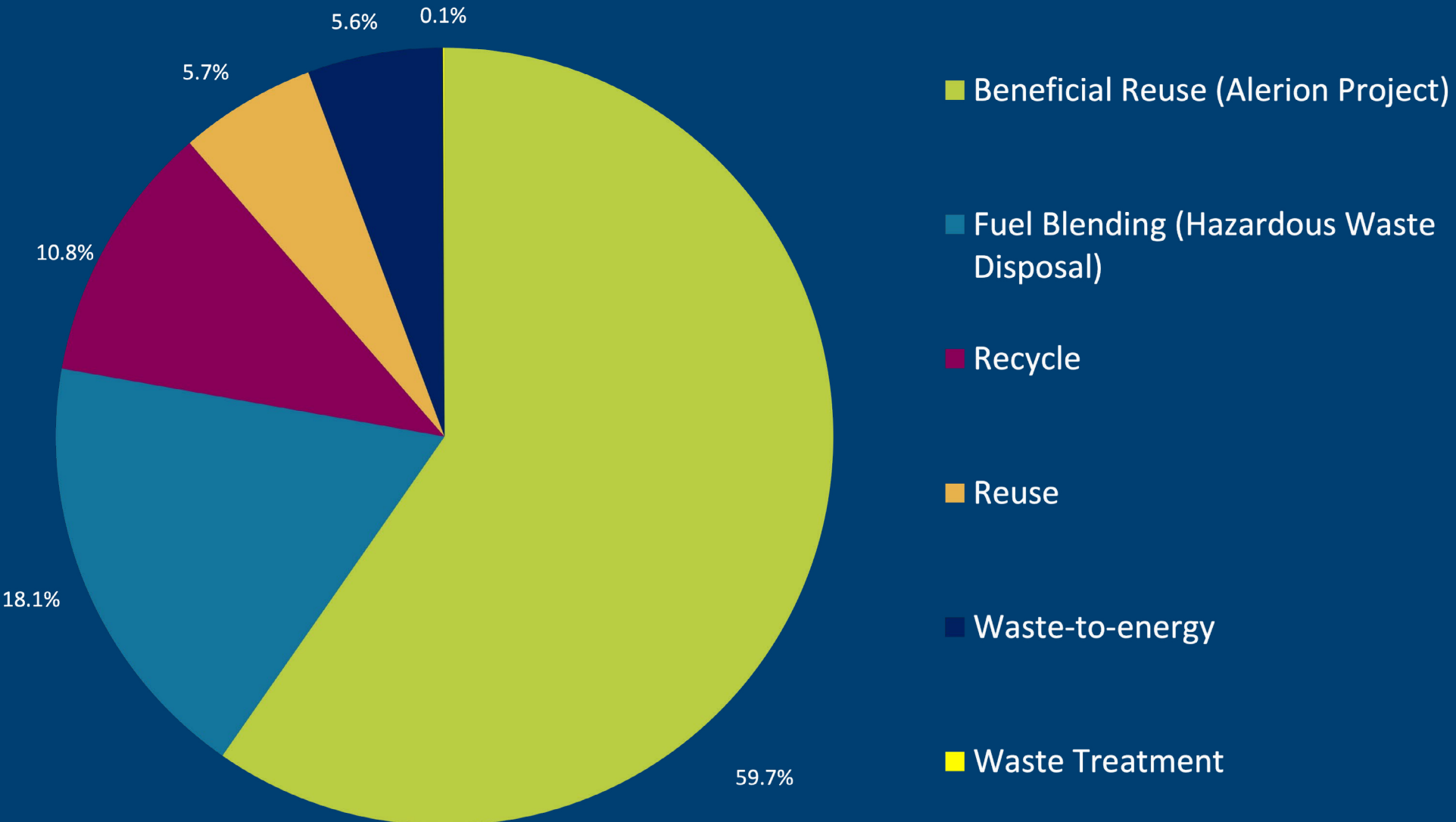


2021 Carbon Footprint Reduction Objective:
Reduce Carbon Footprint for Scope 1 and Scope 2 Greenhouse Gases (GHG) by 80% from baseline (2014) by 2030

WASTE DIVERSION FROM LANDFILL

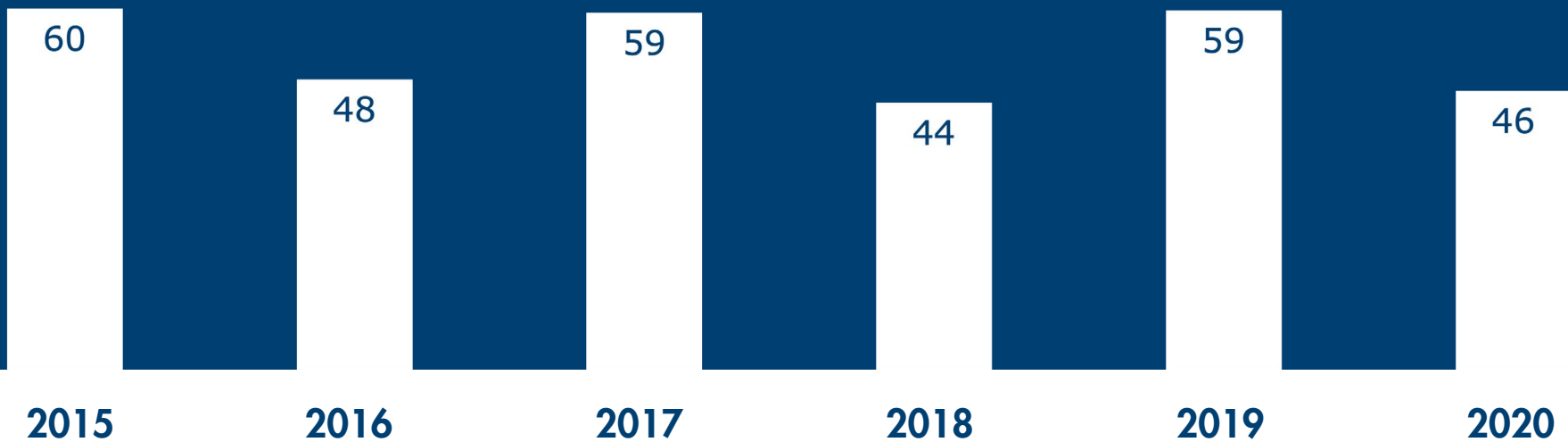
450 TONS

of waste diverted from landfill in 2020

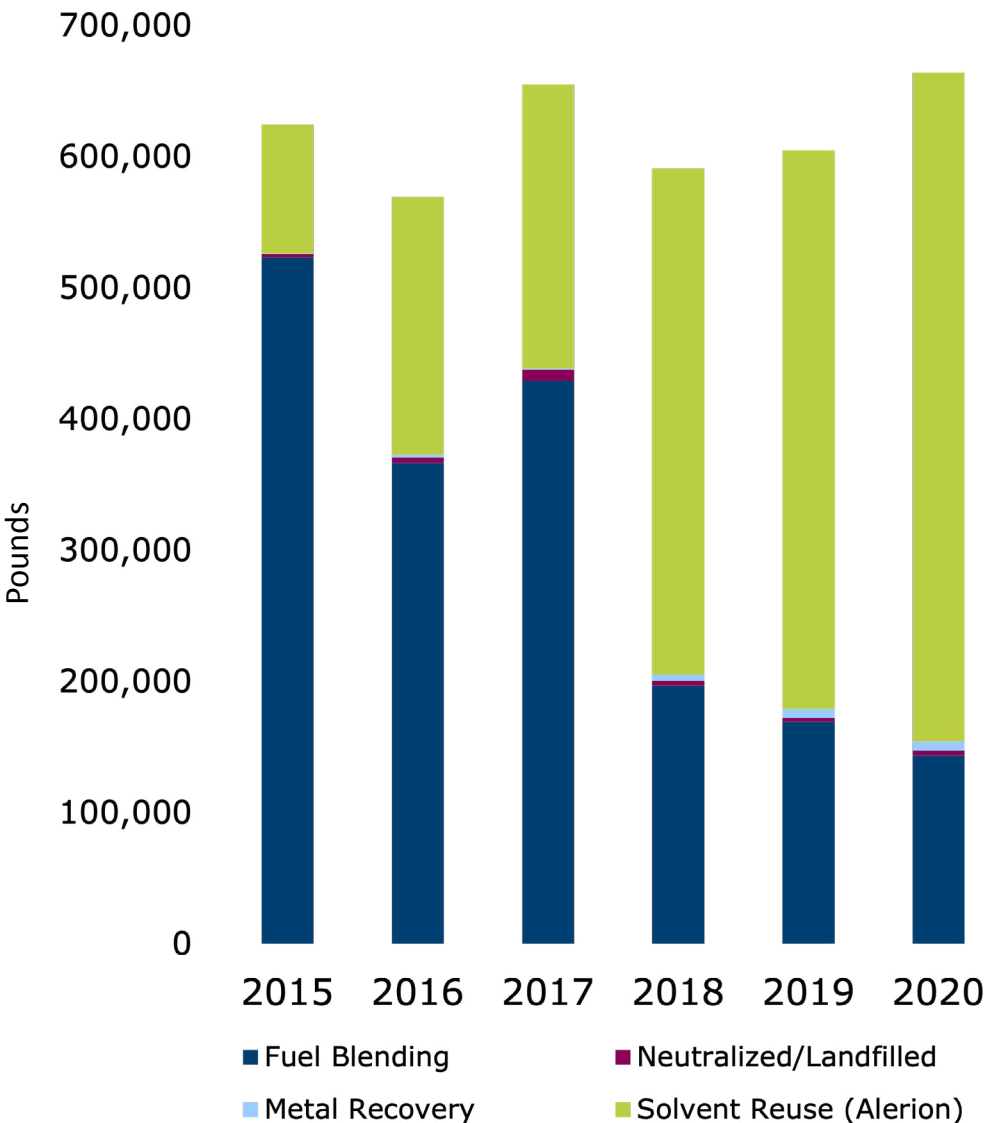


TONS RECYCLED

Brewer Science has recycled over 800 tons since its formal recycling program was initiated in 2002. Materials included in these numbers are all types of paper, plastic bags, shrink-wrap, bottles, and containers. The proceeds from recycling aluminum cans, cell phones, and ink-jet cartridges are donated to local non-profit organizations. Batteries, steel drums, and other metals are also recycled. Brewer Science continually looks for ways to utilize recyclable materials.



HAZARDOUS WASTE DISPOSAL

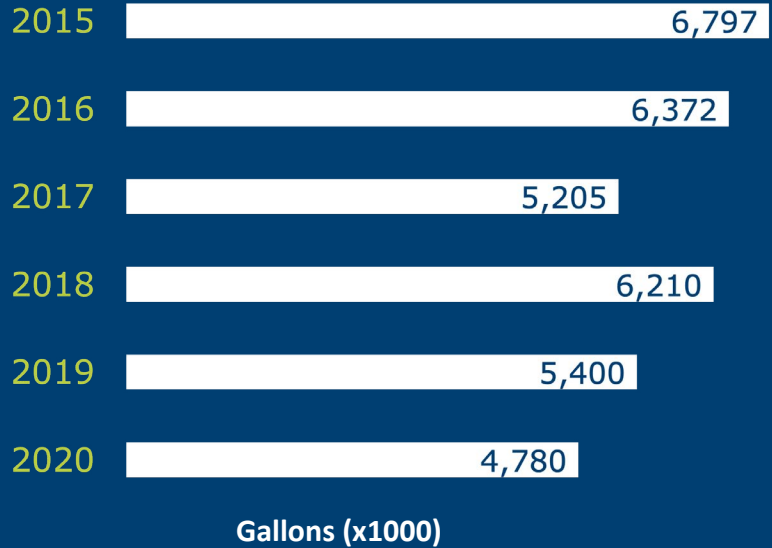


Fuel blending involves processing hazardous waste into fuels derived from liquid and solid waste, which are used as a secondary fuel source to replace coal and natural gas in cement kilns. This method is safe and effective for recovering the energy value of the waste and helps conserve our planet's finite natural resources.

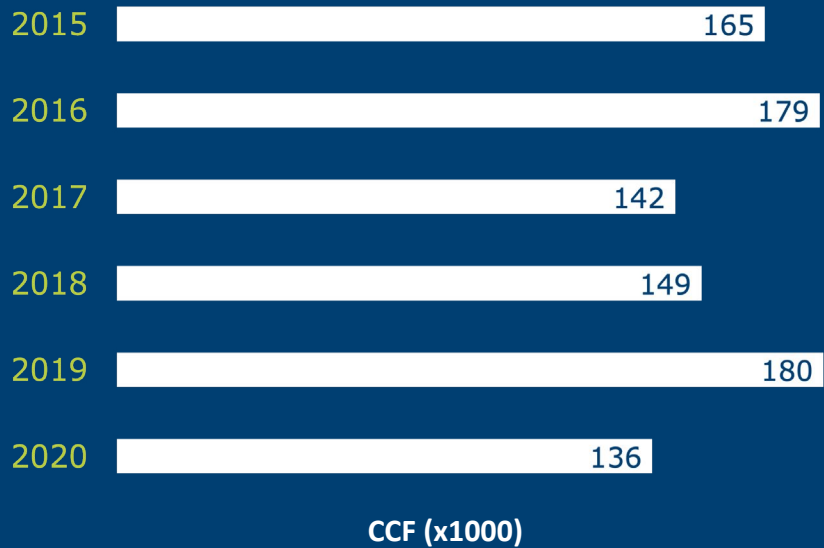
Metal drums are processed as they pass through the Container Decontamination Unit, an oven fueled by natural gas with temperatures above 1500°F. The high temperatures destroy the chemical residues, which produce ash. This ash is tested and blended on site into an alternative fuel source for cement kilns. Decontaminated drums are then crushed and sent to steel mills for recycling.

RESOURCE CONSERVATION

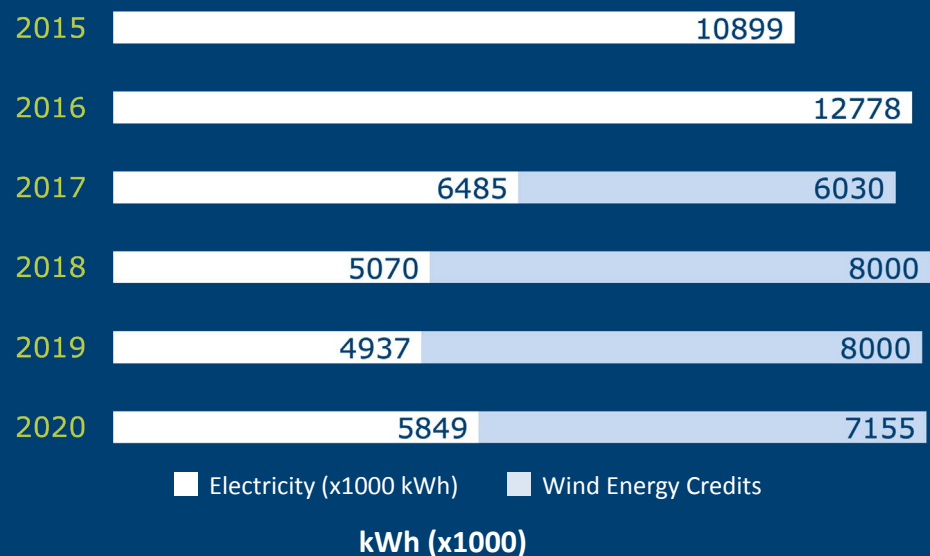
Water Usage



Gas Usage

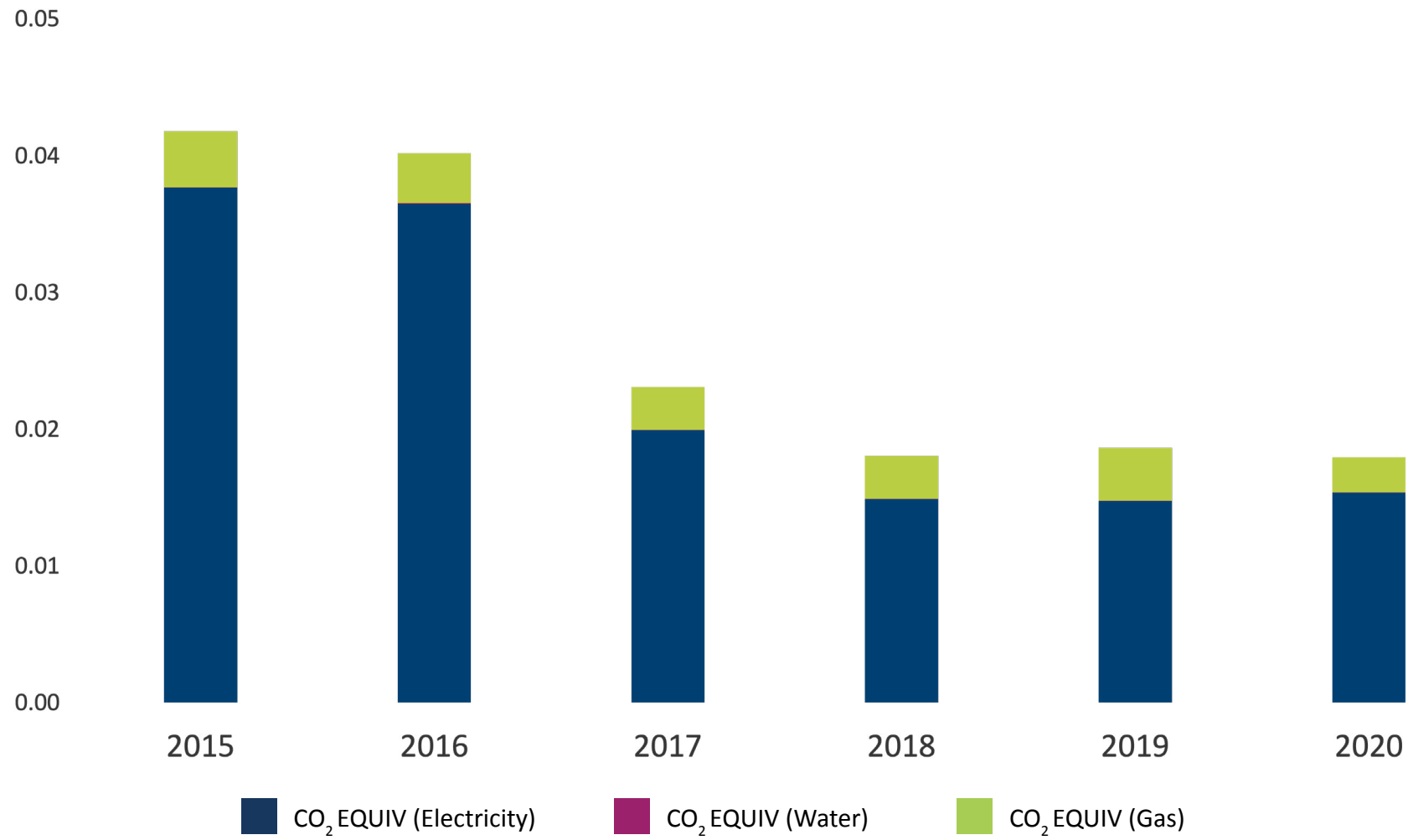


Electricity Usage



55%
of electricity used at
Brewer Science in 2020
came from wind energy

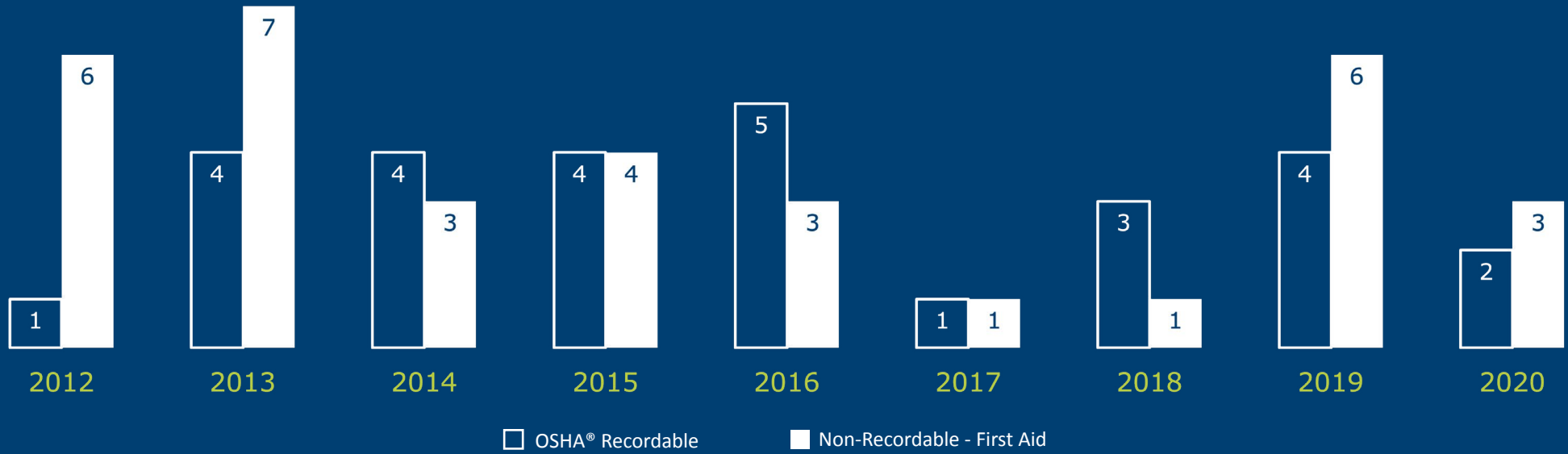
CO₂ EQUIVALENT (NORMALIZED TO PRODUCTION VOLUME)



Brewer Science expansions and increased production have increased the overall utility usage year-over-year; however, our Green Program efforts continue to retrofit existing systems and ensure energy-saving options are implemented with new construction projects. Weather patterns in the summer and winter months also have a large effect on utility usage for gas and electricity.

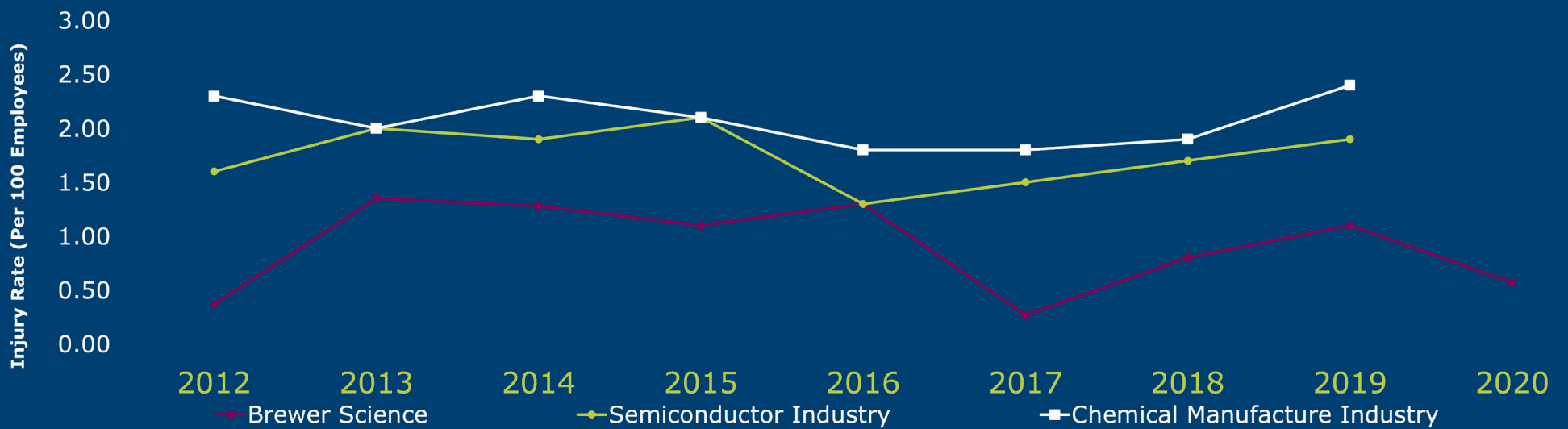
SAFETY

Summary of Recordable and Non-Recordable Injuries



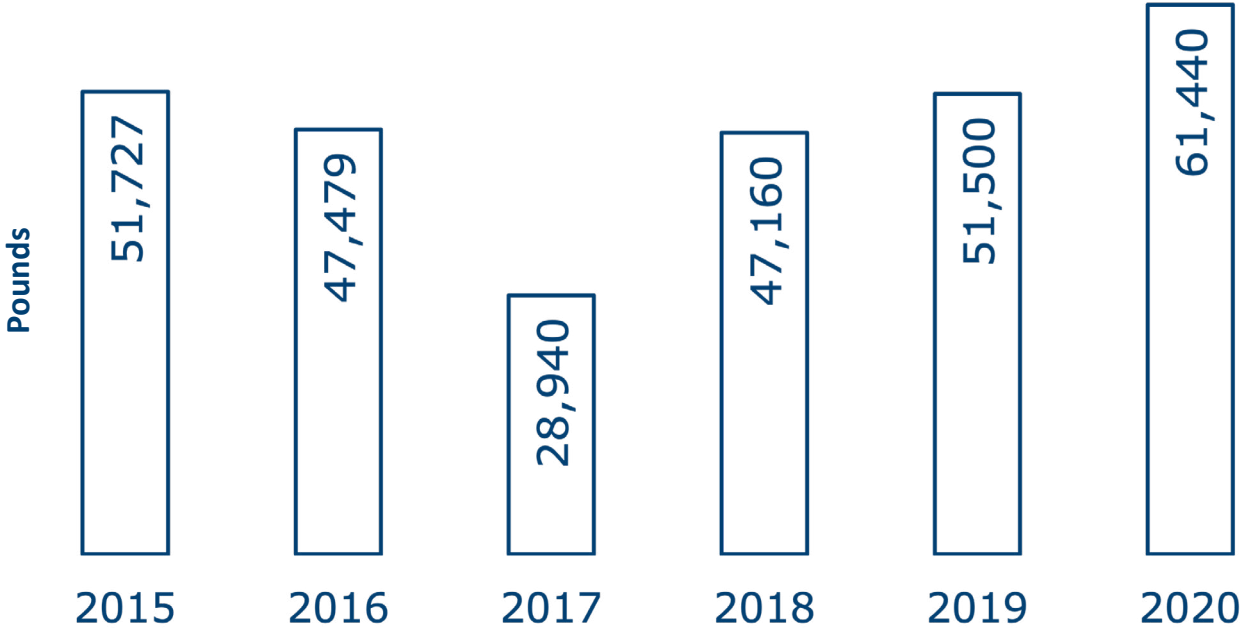
Brewer Science experienced two recordable injuries in 2020.

OSHA® Recordable Injury Rate Comparisons (U.S. Bureau of Labor Statistics)



The Brewer Science safety record continues to exceed the semiconductor and chemical manufacturing industry average.

COMMUNITY WASTE COLLECTIONS



Brewer Science continues its partnership with the community by helping stakeholders properly dispose of waste and adopting the surrounding streets in our industrial park. By working with the City of Rolla, the Ozark Rivers Solid Waste Management District, the Missouri Department of Natural Resources, the Meramec Regional Planning Commission, and the Phelps County Commission, Brewer Science provides area residents with community collections that have enabled Phelps County to properly dispose of over 910,000 pounds of waste over the past 12 years. This partnership contracted disposal companies and provided volunteers who collected appliances, electronics, and tires from area residents which would have otherwise been disposed of in a landfill. Brewer Science continues to support these efforts.









ENVIRONMENTAL STEWARDSHIP

At Brewer Science, we believe that protecting our environment, the safety of our employees and conserving resources are essential to running a successful and mindful business. By providing an added layer of trust and transparency through the GreenCircle® certification, we are able to continue offering the level of quality, sustainable materials that our customers have come to expect.

Brewer Science leads the way for our community, industry and state, receiving national and international recognition for our environmental efforts. Throughout the year, we participate and lead various recycling events and champion causes for environmental awareness. Because of our leadership in environmental efforts, we've been asked to sit on panels, speak at conferences, and participate in webinars for leading semiconductor companies. We are often seen as advocates with a wide reach and knowledge because of our advice given as technology leaders.



-  55% of Rolla/Vichy electricity usage offset by Renewable Energy Credit
-  47,800 lbs. of community electronic waste collected in 2020
-  6.8 tons of tires collected in 2020
-  GreenCircle® Certified for Zero Waste to Landfill since 2016
-  75% of hazardous waste diverted for re-use applications
-  1.1 OSHA® Recordable Injury Rate (RIR) (Industry Rate = 1.9)

OUR PEOPLE



At Brewer Science, we value our employees above all else. Our core values—Trust, Freedom, Commitment, Collaboration, Responsibility, and Excellence—help create a unique environment that fosters creativity and innovation. We've created a culture that promotes a healthy work/life balance, environmental stewardship, and a tradition of giving back to the community.



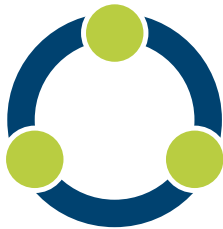
Trust



Freedom



Commitment



Collaboration



Responsibility



Excellence

Development

At Brewer Science we strive to bring out the best in people. We provide many programs and training tools to further our employees' careers and bring out their full potential. Employees have access to over 1,300 training courses for employee development.

In 2018, we began transitioning our focus outside of compliance-based training to a true development model. We've been able to provide more series of trainings like the Emotional Intelligence Workshop; Diversity, Equity and Inclusion; Leadership Essentials and Applications; and a Financial Wellness Series. We have also developed a robust internal mentoring program and we encourage further learning by providing employees with tuition reimbursement of 60% up to \$5,000 per year.

WELLNESS

Employees' wellbeing has always been at the helm of the Brewer Science company vision 'Of the People, By the Technology, For the Customer, To Achieve Fulfillment,' and in 2020 this was our main priority in our response to the COVID-19 pandemic.

Our employees' health was our main focus in our response to this virus and overnight, our employees adapted to a new working structure that allowed our essential facility workers to continue to work in a safe and productive environment that focused on their personal wellbeing. We restricted visitors on-site, enhanced our education on the virus and working from home and conducting risk assessments on all exposure concerns to protect our employees, their families and our communities. Additional support included paid leave, implementing a digital track and trace process and establishing internal teams to ensure we hear our employees' concerns as well as engaging with and guiding them on our actions and policies throughout our COVID-19 journey. For example, we provided weekly COVID-19 updates and hosted regular town hall meetings for feedback as well as education.

Mental health was, and continues to be, important for the company, especially throughout the pandemic. Some of the items established to support our employees' mental wellbeing are:

- Internal communications sites to enable employees to support each other, including sharing positive quotes, seeking guidance on virtual learning for children, and sharing fun photos
- Promoted the services of our global Employee Appreciation Program
- Monthly 'Coffee and Conversations' where employees can come together for an hour and talk about various fun subjects
- The leadership hosted informal gatherings to have the opportunity to connect with our employees
- Acknowledged virtual fatigue and educated and encouraged employees on how to prevent this
- Having hot beverages/mugs delivered to our employees working from home with useful tips
- Introducing a 'meeting-free Friday' incentive as well as adjusting our meetings to 50 minutes to enable employees to stretch and a take a breather between back-to-back meetings
- With the benefits of exercise on mental health, we introduced a 6-week team-based walking challenge called The Outbreak to our employees. This encourages employees to meet and interact with other colleagues across all different departments of the company but also across different countries
- Activities and training during Mental Health Awareness Month

Along with these programs to support our employees and their families during such a challenging and unusual year, we continued to offer the following programs in 2020:

- Reimburse employees up to \$200 (or local equivalent) for personal expenses towards items that support their mental, physical and financial wellbeing
- Hosted an internal Financial Peace University group for employees and their family
- On-site Fitness Room (access was limited in response to COVID-19) and a walking track at our Rolla campus
- Provide employees 30 minutes a day of paid leave to participate in wellness activities

COMPENSATION & BENEFITS

As we experience success at every level of the organization, we know that nothing would be possible without our employees. As part of our commitment to employees, we strive to be a world-class employer by offering benefit programs that meet all their personal needs. Employees are encouraged to take an active role in managing their health and their priorities, inside and outside of the company. Brewer Science is proud to offer a competitive salary to employees, which has been determined through research and external market studies, as well as participation in industry-related workforce development and diversity equity teams.

Enabling our employees to intertwine their personal and professional responsibilities is part of Brewer Science’s value and is our priority. This is reflected in the following benefits:

Community Volunteer Time: We’ve expanded this policy to go beyond helping an organization, but also includes helping a fellow coworker, neighbor, or family member - the Brewer Science community.

Special Paid Leave: Brewer Science offers up to 30 days of paid leave for employees that may need off for health conditions, childbirth or adoption, or military leave.

Special Dependents Leave: This leave is provided to employees who need to support a dependent to ensure he or she receives critical care. Special Dependents Leave is also provided to employees whose partners have given birth to a child or a child has been placed with the employee through adoption.



In 2020, Brewer Science became employee-owned when the Brewer family made a gift to employees of 33% of the shares in the holding company that owns Brewer Science.

To become a member of Certified EO, companies must pass a rigorous certification process to demonstrate that their employees own at least 30% of the business (exclusive of company founders), access to ownership is open to every employee, and the concentration of ownership is limited. Fewer than 1 in 200 American companies are eligible to join Certified EO.

COMMUNITY IMPACT



Sunset Grasses - Jerry Ricker



Brewer Science is deeply committed to making our community a better place to live and work. We continually support charities, arts, academics, and more, not only through monetary gifts, but also through sharing our time and resources.

We believe the creativity in art and the creativity in scientific and technological innovations are closely related. Each year, Brewer Science is a part of the Pure Enjoyment Art Exhibit and the Jacques Thibaud Trio (JTT) Concert. Brewer Science, the Springfield Regional Arts Council, and Arts Rolla have hosted the Pure Enjoyment Art Exhibit in Springfield, Missouri featuring original artwork and photography from all over the Midwest. In 2020, Brewer Science hosted the first digital Pure Enjoyment Art Exhibit, featuring 52 artists representing over 30 cities. Since 1999, Brewer Science has invited The JTT, a world-renowned group from Berlin, Germany that is invited to Missouri to perform for various audiences. Due to the COVID-19 pandemic, the JTT was unable to visit in 2020. We look forward to inviting them back in future years.

Supporting science, technology, engineering, art, and math (STEAM) programs and raising STEAM awareness are of the utmost importance to us at Brewer Science. Each year, Brewer Science employees travel to neighboring elementary schools to talk about careers in STEAM and do STEAM-related activities with the kids. Unfortunately, due to the COVID-19 pandemic, we were unable to send employees to schools or welcome students to our facility. We began the Brewer Science [Virtual Learning Lab Program](#) to produce videos and provide online learning opportunities for anyone interested in STEAM. This video series features experts introducing STEAM and other educational topics.

**BREWER SCIENCE
VIRTUAL LEARNING LAB**

The logo for Brewer Science, featuring the words "brewer" and "science" in a lowercase, sans-serif font, with a stylized bird or wing graphic between them.



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